Claude B. Hutchison

THE COLLEGE OF AGRICULTURE,
UNIVERSITY OF CALIFORNIA, 1922-1952

An Interview Conducted by
Willa Klug Baum

Berkeley
1961
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Claude Burton Hutchison:

Geneticist and agronomist, successively chief administrative officer of the College of Agriculture, first for its Davis campus, and later at Berkeley for all its agencies and activities throughout the state. Convincing advocate of the application of scientific methods to the solution of the problems of agriculture, and persuasive recruiter of scholars of the highest academic standards, he made the Division of Agricultural Sciences an integral part of the University, respected throughout the scholarly world. Thoroughly conversant with agriculture as an art, and deeply understanding of the needs of the farmer, he won California farm leaders to the support of his program and their college, which stands today as a monument to his ability, his energy, and above all, his humanity.

Citation by Robert Gordon Sproul
Commencement
Berkeley
19 June 1953
INTRODUCTION

The administrative career of Claude B. Hutchison, Dean of the College of Agriculture of the University of California from 1930 to 1952, spanned a period during which, despite the United States' greatest depression, World War II, and the great readjustments of the post-war years, the budget of the College of Agriculture was trebled from $3,500,000 to ten or eleven million dollars. Most significant, to Dean Hutchison's way of thinking, was the fact that agriculture, which had not yet won its place in the academic world in 1930, had by 1952 been admitted to full academic fellowship.

Born in Missouri of agricultural people, Hutchison intended to follow in his father's footsteps as a farmer and therefore studied agriculture at the University of Missouri during what he describes as the most sterile period of agricultural education. By almost happenstance -- his older brother took over the farm -- he continued in college work as an instructor, took graduate work at Cornell and Harvard, and became, instead of a farmer, a professor of plant breeding. In 1922 he received from Dean Thomas F. Hunt of the University of California's College of Agriculture an extremely attractive invitation to become Director of the Northern Branch of the College of Agriculture at Davis. Hutchison again reconsidered
his career, then shifted from teaching to administration, a switch which permitted him most effectively to further his interest in agriculture and rural people.

Two years as Director of the Northern Branch, followed by four years with the Rockefeller Foundation surveying agricultural education in Europe (1924-1928), and two years as Director of the newly-established Giannini Foundation of Agricultural Economics, proved excellent background for his subsequent appointment as Dean of the College of Agriculture in 1930. His administrative duties included directorship of the California Agricultural Experiment Station and of the Agricultural Extension Service as well as of resident instruction on the University campuses at Berkeley, Davis, Los Angeles, and Riverside.

Throughout the story of Claude Hutchison's career in agriculture run the basic tenets that the scientific side of agriculture must be strengthened, that the calibre of agricultural teaching must be equal to that in other university subjects, and that the only place for a great college of agriculture is as a part of a great university. The story of how he kept working toward the implementation of these principles is related in the interview.

In 1952 Hutchison retired as Dean of the College of Agriculture and Vice-President of the University, emeritus, but his retirement was short. After a brief sojourn as Dean of the College of Agriculture at the University of Nevada, he was
persuaded by his fellow Berkeley residents to run for mayor of Berkeley, an office he was holding for the second term at the time of the interviews.

The interviews were begun in April of 1959 and continued until December on an every-Monday-afternoon basis, with some time out for vacations. They were held in the Hutchison home in North Berkeley, a Spanish-style stucco complete with walled courtyard and pots of blooming plants at the entrance. Dean Hutchison's study, where we recorded in cool weather, was furnished with a large desk, several easy chairs, and bookshelves full of a few new and many old books. The walls were decorated with photographs of some of his outstanding teachers and colleagues, and with diplomas and honorary citations. As the weather grew warmer we moved to a small, enclosed sitting room adjoining the Dean's study and which opened onto the back lawn. Wicker and metal furniture with brightly-flowered cushions and a tile floor contributed to the cool, informal character of the room, and always a vase of tastefully-arranged flowers reminded one of the presence of Mrs. Hutchison.

Dean Hutchison, a tall, solidly-built man whose vigorous manner, firm step, and thick, white hair belied his 74 years, spoke easily and with the self-assurance that comes from a complete and well-considered scheme of life. From his
conservative sports clothes to the ever-present pipe, he looked the picture of the capable, reliable, moderate administrator, comfortable in every situation. He was exceedingly cooperative about making time for the interviews, and while his duties as mayor prevented his doing much prior research, an occasional apology for forgetting a name only emphasized his usual clear recall. Mrs. Hutchison, a small, active lady with a precise British accent, sometimes stopped in for a few words, and once in a while the phone rang with some pressing city matter, but ordinarily the afternoon was devoted to the recording and to planning for the next interview.

After transcription, the interviews were edited by the interviewer for chronology and topical continuity, and then sent to Dean Hutchison, who went over them with great care, checking names and details, and adding considerable new material.

The interview was conducted by the Regional Cultural History Project at the request of Professor Walton E. Bean as a part of a series on the history of the University of California. The Project, a unit of the General Library under the administrative supervision of Assistant Librarian Julian Michel, is engaged in tape-recording and preserving the accounts of persons who have been influential in shaping the history of Northern California.

Willa Klug Baum, Head
Regional Cultural History Project

May 1962
General Library
University of California at Berkeley
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Section III Personal Life and Political Career

PERSONAL LIFE

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PARTIAL INDEX

NOTE: Bound into that copy of the manuscript which is deposited in the General Library of the University of California at Berkeley are the following speeches by Claude B. Hutchison: "The Liberal Education of the 'Industrial Classes,'" address to the 58th annual convention of the Association of Land-Grant Colleges and Universities, Chicago, Illinois, October 1944; "A Quarter of a Century of Agricultural Progress," address to the Farm and Home Conference, Davis, California, January 1956; "Some Reflections and Reminiscences of a University Administrator," address to the annual meeting of the Technical Committee for W-1 Beef Cattle Breeding Project, Davis, California, July 1956; "Agriculture in a Free Economy," address to the Berkeley City Commons Club, January 1959.
Claude Burton Hutchison

Born, 1885, and reared on a Livingston County, Missouri, farm near Chillicothe.

Graduated from Chillicothe High School, 1904. Entered University that fall and graduated, B.S.A., in 1908.

Graduate study Cornell, M.S. 1913; Harvard, M.S. 1917; LL.D., University of Missouri, 1937; D. Agr. H.c., University of Sofia, Bulgaria, 1939; LL.D., University of California, 1953.

Served as Assistant in Agronomy, Instructor, and Assistant Professor Agronomy, University of Missouri, 1908-13; Professor of Farm Crops and Chairman of Department, same, 1913-16.

Professor of Plant Breeding, Cornell University, 1916-22.

Professor of Plant Breeding and Director of the Branch of the College of Agriculture at Davis, University of California, 1922-24.

Associate Director of Agricultural Education for Europe, International Education Board (Rockefeller Foundation) 1924-26. Director, same, 1926-28.

Returned to the University of California in 1928 to organize and develop its Giannini Foundation of Agricultural Economics, serving as the Foundation's first director until 1931.

Professor of Agriculture and Dean of the College of Agriculture, 1930-52; Director of the Agricultural Experiment Station, 1930-49. Vice President of the University 1945-52.

Dean of Agriculture, University of Nevada, 1952-54.

President, Association of Land-Grant Colleges and Universities, 1943-44.
Chairman, California State Soil Conservation Commission, 1940-48.

Member, California State Board of Agriculture, 1944-52.

Member, Agricultural Board, National Research Council, 1944-48.

Chairman, Agricultural Mission to China, U.S. Departments of State and Agriculture, 1946.

Member, Board of Trustees, China Foundation for the Promotion of Education and Culture, since 1947; Vice Chairman of the Board since 1952.

Member, Board of Governors, Commonwealth Club of California, 1950-52.

Presently, Professor of Agriculture, Emeritus
Dean of the College of Agriculture, Emeritus
Vice President of the University of California, Emeritus

Elected Mayor of the City of Berkeley May 1, 1955.

Reelected May 1, 1959.
Section I  Background and Early Years, 1885–1930
CHILDHOOD AND FAMILY

WKB: First, where and when were you born?
CBH: On a livestock farm in northwest Missouri, Livingston County, near Chillicothe, April 9th, 1885.
WKB: Could you tell me something about how your family happened to be there in Missouri?
CBH: My grandfather was born in Kentucky in 1815 and died in 1914, three months past his ninety-ninth birthday. As a young man he came to Missouri, stopped in Howard County for awhile, fell in love with a girl there, married her, and moved to Livingston County in 1839, where he settled on a farm. He brought some slaves with him. He built a log house, later put siding on it and otherwise improved it over the years. As a lad I remember the old cabins in the rear of the house where the slaves had lived. My father was born there in 1850. And incidentally, he died in 1948, missing his ninety-eighth birthday by six weeks. He lived almost a full century in one community.
WKB: You come from a long-lived family.
CBH: I tell my friends that they’ve got to put up with me for a long time yet.

My father, when he was twenty-six, married my mother who lived in the town of Chillicothe. Her father was a harness-maker. She had been born in Macon County, Missouri, a few counties east of Livingston, and had moved to Chillicothe where I assume Dad met her in their church connections.
WKB: Getting back to your grandfather, do you know where his family came from originally?
CBH: Yes. As nearly as I can make out, our ancestors, Scotch-Irish, came from North Ireland and settled in Pennsylvania. Then they moved down to Maryland where Grandad's brother Thomas was born. My grandfather's name was James. The family moved from Maryland to Virginia and then to Kentucky, where Grandfather was born. There were other boys and one or two girls. They didn't keep very accurate vital statistics in those days. So the family came down the trail from Ulster to Pennsylvania, Maryland, Virginia, Kentucky and Missouri, where I joined it.
They sound like a typical pioneer family. What were your
grandfather's sympathies during the Civil War?

His sympathies were with the South, but of course Missouri
didn't secede. My only uncle, who was a few years older than
Dad, was in the Confederate forces, rather a young man. Uncle
Preston must have been born along about 1845, I would think;
he was sixteen or so when the war broke out. In that part of
Missouri there was only skirmishing, no important battles.
Uncle Pres was involved in some of those skirmishes.

On my maternal side, my mother was Pennsylvania Dutch. Her
father had come into Missouri and married, let's see, a South-
ern girl. I think my maternal grandmother was from the South.
So their sympathies were in general with the South.

Was your father's family Southern Democrat?

Yes.

What was their religious background?

Protestant. My grandfather helped establish in Chillicothe a
church known here as the Christian Church, I think it's official
name is "Disciples of Christ," and Grandfather was a charter
member of that church in Chillicothe. As far back as I can re-
member he was an elder in that church, and my father was a dea-
con. Dad ultimately became an elder, too, but I remember him
as a deacon in the church.

I well remember going to Sunday school, my brother and I
riding horses—sometimes the two of us on the same horse—from
the farm into town. Dad and Mother came later in the family
carriage. We boys had to stay over and listen to a sermon.
Sometimes it would be entirely too long and complex for the
minds of youngsters. Mother put one of us on one side of her
and one on the other, and we had to sit through the sermon
quietly as well brought up young gentlemen should.

I take it your mother came from a religious family, also?

Oh yes, yes indeed they were.

Was the Christian Church a major denomination in the county?

Yes, yes, one of the major denominations. It still is in that
community. The church that my grandfather helped found is still
in existence, although in my lifetime it has been housed in three
CBH: different buildings.

WKB: About what size was your farm?

CBH: Two hundred and forty acres. The farming enterprises were cattle, hogs, and sheep. Dad produced as much of the feed for the livestock as he could, sold nothing from the farm except livestock—beef, pork, mutton—together with wool and surplus eggs, butter, etc., which the family did not need.

WKB: Was two hundred and forty acres a large farm for that day or for that type of economy?

CBH: It was a typically family-sized farm for that era and that region. Grandfather had more than that, and when the children grew up and married he gave each of them eighty acres of land, or its value in money, to the boys and the girls as well, four of them, I believe. Then Dad settled on that eighty acres and in his lifetime acquired one hundred and sixty acres more. He built up his farm in that way, as he accumulated enough money to buy another forty acres at a time.

WKB: Then your uncles and aunts must have lived around you?

CBH: Yes. One of them, an aunt, immediately adjoined our farm. I grew up with a cousin who was just within three months of my age. We played together, went to school together, went to high school together.

WKB: Did you have big family gatherings on holidays?

CBH: Yes, big family gatherings on holidays. Visiting was a very nice custom in that neighborhood during the wintertime because there was a lot of snow and there were no farming activities, save feeding and caring for the livestock, in the winter. Frequently our family, after the livestock had been cared for in the morning, at about ten or eleven o'clock would get into a big bobsled and drive over to our aunt's for dinner and spend the day with them. The day, of course, consisted only from, say, roughly eleven o'clock in the morning until three or three-thirty in the afternoon because we had to get home and take care of the livestock in the late afternoon, feeding and watering and caring for them. That was custom. We went to visit neighbors wholly unrelated to us and also to the families around who were parts of our granddad's family.
I went to a one-room school. Our school term was divided five months in the winter, which would run from, oh, roughly the first of September to the first of February, or last of January. Then in February and March the weather was so bad that we would close the school and open again on the first of April for a three months' term. We had eight months all told, but divided into five months and then three months.

And how did you get to school?

Walked. The school was right on the corner of the farm, only a quarter of a mile, and usually I just cut across the field. I remember one winter that it was particularly cold going to school across that field, the wind blowing from the northwest so severely that I had frozen my nose and two little spots on each cheek. When I got to school the teacher saw what had happened to me and advised me to pick up a handful of snow, which I did, and held onto that to thaw it out.

Did you get a good education in that little school?

I got a good start, I think. The ages of the youngsters ranged all the way from six or seven up to eighteen or twenty. I started when I was seven years of age and I continued until I was fifteen.

Did the teacher board around with different families?

Yes, yes. The teachers usually boarded either with my aunt, whose house was just a few hundred yards away from the school building, or with my own family, which was probably a quarter of a mile, maybe a little bit more.

The summer I was fifteen—it was the year 1900—I said to my father one day, "I think I've gone about as far as I can up the educational ladder in this institution of learning over here on the corner of the farm. I'd like to go to high school downtown next fall."

"All right, son," he said, "that's a laudable ambition, and we'll go down to see the principal sometime and ask him if he will admit you."

In that community it was customary for farm people to do their weekly shopping in town on Saturdays. They called it "trading" because often they would take farm products to the grocer—milk, butter; maybe a bushel of apples or a few heads of cabbage, or some potatoes—and trade for groceries, the groceries being
CBH: chiefly coffee, salt, and other condiments, things that weren't grown on their farms.

So one afternoon after Dad and Mother had finished their shopping, Dad took me down to the office of the principal. He was not only principal of the high school, but he had a little coal-distributing business which he employed someone to run while he was in the high school. On Saturday afternoons he was apt to be around that coal yard. So we went down to see him, and I explained to him my ambitions and he made a similar statement to that which Father had about "encouraging this young fellow to continue his education." He said, "Come on down the first day school opens in September. Come down and see what you can do." And that was all the entrance requirements. There were no grades. There was nothing that I had to do in the way of examinations to gain entrance into that high school.

During the four-year high school period I rode back and forth from the farm. Usually I would get up in the morning, water, curry, saddle and feed my horse, milk two or three cows, and then go into the house and have breakfast and change my clothing and get aboard my horse and ride four miles to high school, carrying my lunch in a little box or paper bag. When high school was finished for the day, at three or three-thirty in the afternoon, I would ride the reverse, getting home and getting the chores done, and then I would do my homework after supper under a coal oil lamp. But it wasn't a hardship. I had no sense of feeling in any way that that was a hardship. It was a privilege to me.

WKB: I suppose there were only a certain number of courses you could take.

CBH: Yes, the curriculum as I recall was fairly well-fixed, although there were some electives. Primarily we had English, one foreign language—I studied German—mathematics through trigonometry, science, biology, physics, and chemistry. I took a classical course because in those days I thought I had an ambition to become a lawyer. By the way, I had Latin, all four years, as well as German and English.
WKB: Did some of the students take a vocational course?

CBH: Oh, no. This was long before the idea of vocational education was developed. They might elect science—physics, chemistry—but all took mathematics. As I recall, I had a beginning course in botany, but I didn't take physics or chemistry in high school.

WKB: Were the science courses good?

CBH: Oh, I would say not too good as measured by modern standards, but it was a beginning. I don't quite know what is good and what isn't. If the teacher can arouse the interest of the student in any subject it seems to me that's good.

WKB: Would you judge your teachers as good teachers?

CBH: Yes, excellent teachers. We had excellent high school teachers.

WKB: About how many teachers were there in this high school?

CBH: Not over half a dozen. But it was a small high school. When we graduated there were only fifteen or sixteen graduates, maybe thirty to thirty-five to begin with, because in those days a lot of youngsters didn't even finish high school.

WKB: Oh, that's what I was wondering. Did most of the students from your little one-room school go on to high school?

CBH: Only two of us at that time.

WKB: They all finished with grammar school? That was the end?

CBH: Yes, for most country boys and girls. My cousin and I went on to high school, however. My own sister and brother, who were older than I, had gone through this same country school. In those days there was a private normal school in town. My sister graduated from that and immediately married. My brother went to a business school instead of a high school.

WKB: How many brothers and sisters did you have?

CBH: I had two sisters, Maude and Blanche, and one brother, James. My elder sister is still living in Oklahoma. And my brother has passed on. He was two years older than I. The youngest of the family, another sister, seven years my junior, is no longer living. So my elder sister and I are all that is left of our immediate family.

WKB: One sister and your brother were older than you and one sister was younger.
CBH: Yes. I was the younger brother, and the older brother in those days, should I say, had a bit of an advantage because he seemed to get all the nice things to do on the farm. He would help Dad in the fields. And he learned to handle horses. I had to do the, let's say, less glamorous type of thing. I used to do the milking and help Mother around the house. I helped her with washing. We had a washing machine, you know, one of these hand-propelled things, and it was my job to run that washing machine every Monday. Monday was wash day and, except when I was going to school, I would help Mother with the washing. I learned to mop the floors in the wash room and on the outside porches, and I was quite a handyman around the house.

WKB: Did your older brother become a farmer?

CBH: For a time. And that's an interesting thing to me. He wanted to become a business man and ultimately did. When I went to college I fully intended to become a farmer, but when I graduated he had come back to the farm. He was running it with Father. It wasn't large enough for both of us and I thought, well, maybe I'd better give him that opportunity since he was established, and I would look elsewhere. But later on he decided to leave the farm and become associated with the John Deere plow company at Omaha, and he was in that firm for the rest of his life.

WKB: Did you feel when you were young that your older brother was rather the favored member of the family?

CBH: Yes. [Laughter.] But I could never prove it!

WKB: It sounds that way, a little bit.

CBH: When we were teenagers, my brother and I, Dad got a one-seated buggy—those were in the "horse and buggy days"—and for some reason he didn't make it too clear to my older brother that this was to be a joint property between him and me. So I had to get his permission to use that buggy when I wanted to take an attractive young girl for a buggy ride! And that never seemed to me to be quite fair. I just accepted it, I suppose, and I'm sure it didn't have an adverse effect upon me. But as
CBH: I look back on it I can remember that I just questioned the equitableness of that arrangement.

WKB: Did your father favor either the boys or the girls in your family?

CBH: I don't think so. And I'm sure Mother didn't. Mother was very careful never to indicate that any one of us meant more to her than the other. I think, despite the unclear ownership of the buggy, we were a well-adjusted and happy group. Each had his own chores to do, his own responsibilities to discharge. Each knew he was a member of the family team and was expected to pull his part of the load. I must confess, however, that at times it would seem to me to be much more fun to be out there driving a team of horses in the field than it was to be pushing that washing machine. But I never questioned it.

Then another thing about my brother Jim—this is really amusing—another thing in which I always thought Jim had the advantage over me: We used only wood for fuel in this farmhouse. And for some reason or other, the woodcutting job was divided between my brother and me on the basis that he would see to it there was always plenty of wood for the heating stoves in the house, and my task was providing the firewood for the cooking stove. Well, in the summertime in Missouri you don't need to use the heating stoves. So he didn't have to cut wood all the year round. But the cook stove was used every day in the year and I had to see to it that there was plenty of firewood for it. I've often heard my mother say that I was able to figure out to the exact stick how many sticks of wood she would need from Saturday noon until Monday morning, because there was to be no woodcutting on Sunday. We went to church on Sunday. And Saturday afternoons, if I had the supply of wood for the weekend accumulated, I could go hunting or anything I wanted to do. That was the playtime of the week, but I couldn't play until the wood supply was provided for the cookstove. In the summertime, to be sure, I got a little bit of relief because we would cut cookstove wood down in the woodlot enough to last through the summer. So this cutting the wood for the cookstove
CBH: during the summer wasn't quite as bad as I have made out.
WKB: Did your sisters have any manual chores to perform?
CBH: Only around the house.
WKB: They had housework duties.
CBH: Oh yes. We seldom had any help either on the farm or in the house. The exception was during harvest season. Then there would be extra help, what we would call in California "itinerant laborers," only it wasn't itinerant, they came from just around the neighborhood—sons, young boys, and even some of the men themselves, who would come in and help Father with the harvesting.
WKB: Did you do any of that work for your neighbors?
CBH: Yes. There was an exchange of labor, particularly in harvesting the hay crop and in harvesting the grain crops. Oats and wheat were the primary cereals, and at harvest time—
WKB: This would be for your own livestock?
CBH: Yes.

My father and his brother cooperated in harvesting the hay crop. Both were livestock farmers, and each grew considerable acreage of hay, primarily timothy and clover, a mixture of forage for livestock feed. They would fill the barns on each of the farms first, and then the rest of the hay to be stacked out in the fields was done. In that harvesting my uncle would do the mowing. He used a mowing machine which they both owned together. He would cut the hay. After it was cured we would stack it in the field, bringing it with big drag rakes onto what was called a "ricker" that would lift the hay up and dump it over into a stack or "rick." Father and another man would be on the rick and stack the hay in a uniform manner. When I was eight years old I was put aboard a horse hitched to one end of this drag rake and an older boy on another horse on the other end, and we worked together raking the hay into the ricker. He was large enough so that when I turned my horse around, if he stepped over the trace, my partner could climb down and rearrange my horse's trace. I worked for fifty cents a day for ten days between my father and uncle. I made five dollars, the first money I ever earned.
The following fall I bought two ewes from another uncle. The next spring one of the ewes produced two lambs, the other produced one, and I was in the sheep business.

WKB: This was when you were just a little over eight?

CBH: Yes. I was eight years old when I earned that money. I earned more later, doing the same thing the next summer.

My brother, who had preceded me in the hay-raking business by two years, invested his money, the first money he ever made, in a calf. Dad put this calf in with his herd of calves which had been produced on the farm that year. When these calves were two years old he sold them to someone who fed them and fattened them and shipped them to market. The customary price for a five-or six-month-old calf in the fall was around eight or ten dollars, so I suppose Jim had two years' accumulation from his haying income to invest. The customary price for a two-year-old feeder steer was $25, so by the time his calf was grown and was two years old he sold it for $25. I, in the meantime, had got my sheep business started. Jim then invested his $25 in some other sheep and we went into business together.

WKB: So you had your own private 4-H club there.

CBH: That's right. I've often told this story to youngsters in our 4-H clubs, saying that I was a member of a 4-H club when I was about eight, and that there were just two members of the club, my brother and I, and the leader was Dad. This, of course, was long before anyone had thought of 4-H clubs.

The income which we derived from that flock of sheep, which we ultimately built up to maybe 150 head of breeding ewes—we could sell the wool each year and all of the male lambs and occasionally we'd cull out an old ewe, and in that way build up the flock—that was our spending money. When the flock was small it was just for spending money, but after the flock became a certain size and the income that we were deriving reached a certain magnitude, Dad thought that was too much money for kids to be just frittering away.

He said, "From now on you buy your own clothing." And
CBH: during my high school days I bought all of my own clothing. By the time I was ready to go to college the flock represented an investment of sufficient magnitude to pay my entire way through college, but I hasten to say that it didn't cost nearly as much to go to college in those days as it does now. I frequently tell my own son that he spends as much in a year as I did for the entire four years of undergraduate work.

WKB: Were you close to your sisters?

CBH: Well, I've always been rather close to my elder sister, closer I'm sure than I was to the younger sister. Again I don't know why.

WKB: Did she care for you?

CBH: Well, she was older, of course, and as a youngster, certainly, she took care of me and played with me. I can well remember playing with my older sister around the house and barns and haylofts and things. And one time she almost scared the wits out of me by pretending she was a bogey up in the hayloft. [Laughter]

WKB: You say she took teacher training later, but got married and didn't teach?

CBH: That's right, she didn't teach. But the curricula of normal schools in those days had much more substance than "teaching methods."

WKB: Did your younger sister take teaching courses too?

CBH: No. She only went to high school. At that time Mother was ill, nothing to keep her confined to bed, but—well, I don't want to use the word "invalid" because her spirit was so strong—but she was unable to do as much as she had been used to doing and my younger sister was rather close as the baby of the family and so when she finished her high school work she went right back home to the farm and lived there as long as Mother lived. When Mother passed away, Dad sold the farm and moved to town and my younger sister took care of him until his death in 1948.

WKB: What did you do for recreation?
CBH: Primarily recreation in the country school was a type of baseball. It wasn’t really baseball. We had our own rules and regulations that we developed. We played that and some other games in the mornings. We tried to get to school just as early as possible and have a game before the nine o’clock bell rang. And then we were let out for about fifteen minutes of exercise called "recess" in the middle of the forenoon and we knocked the ball around again, then at noon gulped our food down as quickly as possible so we could get in about forty minutes, playing again for fifteen minutes at "recess" in the afternoon.

WKB: What did you do around the house?

CBH: At home the recreation was primarily hunting. There was no fishing in the area so hunting was the recreation. Saturday afternoons, particularly in the autumn, quail, doves, rabbits, etc., were plentiful in the fields. In the spring there were squirrels to be hunted down in the woodlot, and young rabbits along the hedgerows, and in the wintertime there were quail and rabbits and occasionally ducks along the river and lakes, ponds, in the river region.

WKB: Mostly outdoor activities.

CBH: All outdoor.

WKB: What did your family do in the evenings? I imagine you had to get up very early.

CBH: Yes, fairly early, and we got to bed fairly early too. During school period, particularly in high school period, my evenings were all spent in study, unless there was some party downtown with my classmates. There were parties of that sort, dances and so on.

WKB: Were there community activities in which your family participated?

CBH: Not in the country.

WKB: You were too far separated?

CBH: Yes, yes. Our social contacts were primarily through the church in the town— I speak of the family now— the church and the town and our school contacts. There was no athletic program in the high school. The high school didn’t even have a gymnasium.

WKB: Straight study.
CBH: Straight study.

WKB: Was your family well-off in comparison with the rest of the community, or about average?

CBH: Oh, I think better than average in the country neighborhood. But we didn't need much money in those days. We produced practically all of our food on the farm—vegetables, beef, pork, mutton, poultry, eggs, milk, even flour—and we needed a little money, of course, to pay taxes and doctor bills occasionally, and clothing. That's about all.

WKB: How was the market for the livestock? Was there a pretty steady demand?

CBH: No, there were ups and downs, good years and bad, droughts occasionally. But it was a good life.

WKB: Were the farmers around your home interested in politics?

CBH: Not much, I would say.

WKB: Did the "downs" like the depression of 1893 seriously affect the people around you?

CBH: I can't recall them. It probably meant that they didn't have as much income, of course, at that time. But it didn't affect their living very much because as I say they were so self-sufficient and, above all, resourceful and self-reliant. Now it might well have affected some who were, as my father was, still buying land. But he bought it from his father, and his father knew the difficulty so he didn't press him for payment.

WKB: Oh, I see.

CBH: Just as soon as he could, he paid off that last forty. (He bought it for $40 an acre.) It took him several years to get the $1600 to pay for that last forty acres of land he bought.

WKB: I suppose those who hadn't bought from their family or a friend might lose...

CBH: Yes, but I can't recall in our immediate neighborhood ever hearing of a mortgage foreclosure. It was a pretty stable neighborhood so far as finances were concerned. No one was wealthy, but they had enough to live on. They helped one another in the fields and barns, in sickness and in death.
CBH: Goodness, as I look back—I suppose in one's boyhood days things always seem greener—but I was never hungry, there was always plenty to eat, good wholesome food, including homemade ice cream in summer and the privilege of licking the freezer paddle.

WKB: Enough clothing?

CBH: And enough clothing, yes. Oh yes, always warm and useful, if not always pretty.

WKB: What did your father look like? Oh, is this a family portrait?

CBH: This is a family portrait right here. This is the young man you are speaking to when he was about, oh, I guess ten or eleven.

WKB: Is this your son in these other pictures?

CBH: Yes.

WKB: Well, he looks quite a bit like you then, doesn't he?

CBH: Yes, his mother says so. This is Father and Mother, my elder sister, my younger sister, my brother and my elder sister's husband when they were young. He was a businessman in Oklahoma City. They went to Oklahoma City right at the turn of the century when Oklahoma City had, oh, eight or nine thousand people, and she's still living there.

WKB: Your brother looks quite a bit like you. How would you describe your father's personality?

CBH: Well, he was a bit reserved, quiet, highly regarded by his contemporaries, and he lived practically a century in the same community, up until he was roughly seventy, on the farm and the rest of his life in town. That's his photograph when he was about ninety-five.

And this is Granddad. That must have been taken about Granddad's ninety-fifth birthday. So they both lived long lives and in the same community.

WKB: Your father was rather quiet and solemn, or was he?

CBH: No, I wouldn't call him solemn. He had a keen sense of humor, liked to tease us kids a bit, and we just adored him. But he
CBH: was not, let's say, much of a conversationalist.

WKB: Was he a strict disciplinarian with the children?

CBH: Well, not too strict. I don't have any feeling of restrictiveness, but I well remember him saying to me, "If you ever get a licking at school you're going to get another one when you get home." We were taught to obey. We were taught to assume responsibility, and I've often said to him that the two things I learned that have been most valuable to me in life I learned very early on the farm: one was to make decisions, the other was to assume responsibility because the family's welfare depended on what everybody did, how well we worked together. And there was no discordant element in it. And when Mother said, "You make sure that woodbox is filled with enough wood to last over the weekend," it never occurred to me to question it no matter how much I wanted to go hunting. I just worked all the faster and harder to get the job done, and then I went hunting with her full blessing.

WKB: Your recreation came after you finished your work.

CBH: That's right. And I never thought of it as a hardship.

WKB: Your family was quite religious. Did this impose restrictions on the children, such as no playing on Sunday?

CBH: Yes. We couldn't play very much on Sunday. We certainly could not play ball. That was taboo. And I'm confident that there was never a deck of cards in the house except in my suitcase when I went home from college once in a while. (Laughter) Yes, they were rather strict, but as I look back on it all today the only thing that ever seemed to me disagreeable was to have to sit there for an hour in church with somebody talking and I didn't know what he was talking about, and I was restless, you see.

WKB: Was your family's religion one that made you feel afraid if you transgressed?

CBH: I suppose I did, yes, because in those days fear, if not a part of religion, was nevertheless a part of the mechanics the church used to promote religious behavior. One was often afraid to be bad.
WKB: Well, hell was a pretty fearful place in those days.

CBH: Oh, yes, hell and damnation and brimstone and all that sort of thing, you know. And I don't remember—I suppose maybe I didn't think too much about it until I got to college, then I began to question a lot of this. And it's true that religion—I wouldn't call it religion, but what's the word I want to use? the practice of theology—was a practice that made you fear to be bad because you feared the consequences, you see. Well, I ultimately reached a point where it just didn't make sense to me, and maybe that's why I don't go to church very much now. But I still think I'm somewhat of a religious man.

WKB: What was your mother like?

CBH: Best person that ever lived. She had a physical ailment that bothered her for twenty-five years. Most people would just give up. She struggled on by will power. (In those days you never went to a hospital to be cured; you went to the hospital to die.) This developed after my youngest sister was born—an internal tumor, not malignant. Finally it got to the point where she had to have an operation but it was too late. With current medical science it could easily have been corrected. But she kept putting it off, putting it off, carrying that load herself, never complaining, always a smile on her face when you could see, when you knew, she was suffering. There was nothing I, as a youngster, could do about it. That community, as I say, was not supplied with good hospital care. There were some hospitals, one or two in town, but no one went there except as a last resort and usually it was too late.

WKB: Was she a strong disciplinarian?

CBH: Well, in a very loving way. None of us, I'm sure, ever thought of disobeying her. And in my own case all I asked was approba-
tion from her. And she could get me to do things just by talk-
ing to me, persuading me, and if I didn't a scolding was the worst thing she could possibly do to me. Once in a while Dad would take me out to the woodshed. That was simple. That was easy. That didn't hurt. It would smart a little bit, but I
CBH: must say it was effective. But the worst thing to me, the worst punishing that I've ever had, was a scolding and a feeling that I had disappointed them.

WKB: Was your family much concerned about national affairs?

CBH: No. The only thing that I ever remember hearing my parents talk about, aside from local and national election and politics, was the Civil War.

WKB: Oh, they still talked about the Civil War?

CBH: Yes, that was the big event that affected their entire lives. Dad was by nature a conservative, but politically a lifelong Democrat, a southern Democrat. But he too, like many southern people, couldn't forget the Civil War. His whole nature, his philosophy of life, was conservative. If the Civil War had not occurred, or if he could have forgotten it, he could easily have been a Republican like his younger son to whom he used to refer good-naturedly as the "political black sheep" of his family.
Life as a Student

WKB: In our interview last week I believe we'd gotten you through high school in Chillicothe and you were ready to go to the university. I was wondering first of all how you happened to decide to go to the university? Was this common in your family?

CBH: No, I think I was the first member of my immediate family, and Father's family, to go to college. Well, I suppose my general interest in an education prompted me to go on. If it is not too immodest to say, I graduated at the top of my high school class. It wasn't a very large class, I have to admit. [Laughter]

WKB: Did the principal encourage you to go on?

CBH: Well, I remember that some of my teachers did. I had a lovely little teacher, Jacobina Brandenberger, not over five feet tall, who was my teacher of German, and she encouraged me. I had a teacher of English, too, Josephine Norville. Both of them took some special interest and possibly saw what they regarded as some intellectual potentiality, and they encouraged me to go on. Now I can't remember ever having debated with myself or anyone whether I would go. It seems to me I hadn't been in high school very long until it just came about naturally that I was looking forward to going to the university.

WKB: Did your family expect you to go on or did they think that was very unusual?

CBH: Well, they thought it was a bit unusual I am sure but they encouraged me all the time, stimulated me in every way that they could to go to college, especially Mother.

WKB: In 1904, when you started to college, was it socially accepted to go into agriculture?

CBH: Oh, yes. Well, I'll have to temper that just a little bit. It was acceptable, yes. But when I got to college I found that it wasn't too acceptable from the social point of view. The colleges of agriculture hadn't progressed very well and were on the
CBH: campus and even locally and out in the state referred to often as the "cow college." So it wasn't, even in those days, completely accepted in the academic world. College of agriculture faculties hadn't yet been received into full academic fellowship, let's put it that way.

WXB: Did you feel that among your student friends?

CBH: No, no, no, no, because I was rather fortunate. The class of 1908, which was my class at the University of Missouri, for some strange reason included some rather able youngsters, serious-minded, earnest. That one class tended to set some new standards in the student body not only in the college of agriculture but generally throughout the university.

And we did a number of things, extracurricular activities. For example, we discovered during our freshman year that we weren't very well known on the campus. So we decided in the spring of 1905 that we were going to do something to attract attention to the college of agriculture and to the students in it. So we went to work on the problem and decided we'd have a parade. We all met out on the college farm, which is right at the edge of the town, dressed in overalls, picked up some shovels and rakes and pitchforks and other things, made an arrangement with the professors in the college to get some horses and hitch them up to farming implements, plows, hay rakes, and mowing machines, and maybe we had a self-binder or two, and other things, and we paraded downtown, walking along with our pitchforks and other paraphernalia, and ended up on the campus. We had made arrangements with the professor of English, who was in charge of university assemblies—we had them every day for about a half an hour—and he had prepared a special speech with some agricultural implications in it for us. We appeared in the auditorium of the main building dressed up in these things, but we had unfortunately not informed the president of the university. (I should interrupt to say we had informed the professors of the college of agriculture that there weren't to be any classes that day. We just sent each of them a formal note that there would be no classes.)
CBH: But when we stepped into the auditorium armed with pitchforks and hoe handles, etc., the president came down off the rostrum greatly disturbed and told us to go home and disrobe ourselves. And that broke up the assembly. We were perfectly quiet and didn’t intend to start anything and we were astounded as much as the president was when it turned in this direction. So we left the room and went out to the front of the building where he proceeded to give us a very stern lecture, calling our attention to the fact that the legislature was in session at the capitol a few miles away, that when the legislature heard of this disreputable event that was taking place on the campus it might seriously affect the university appropriations, and therefore affect our education. And we were greatly concerned over that. After all, we were there not just to have fun, but if possible to get an education.

But it turned out all right after all. The legislature didn’t cut the appropriations and everybody had a good time, and from that day on the student body realized that there was a college of agriculture and a group of imaginative students there. The engineers had had their celebration on St. Patrick’s Day for a number of years; the lawyers had had some annual "day." But agriculture students hadn’t done it and we thought we were about as good as anyone else, if not more so.

The next year we hit upon the idea of putting on what we called a "country fair," with sideshows, stunts, races, etc. That country fair was held the first time in 1906, and except during 1918, when we were at war in the first world war, that country fair was put on by students of the college of agriculture continuously for fifty years. It was discontinued only a few years ago.

WKB: I don’t think we put into the record what college. It was the University of Missouri, wasn’t it?

CBH: Yes, the University of Missouri, at Columbia, Missouri.

WKB: And what was the size of the student body at that time?
CBH: Oh, when I entered there were less than two thousand students. I well remember the day during my undergraduate days—I must have been either a sophomore or a junior—when we had quite a little celebration of the fact that today we've got two thousand students who have registered this year. Now, like all other educational institutions, it's grown. I suppose the student enrolment now is fourteen or fifteen thousand.

WKB: Where did you live while you were attending the university?

CBH: Well, there are some interesting things about that. I rooed the first year I was in college with a lad, a sophomore, from my home town. I well remember we got the room for $10, $5 a month each, and we boarded at the university dining hall.

WKB: Was this in a private house?

CBH: Yes, the room was in a private house just across the street from the main campus, and in the home, by the way, of a man who was president, I think, of what they called a "bible college." Some church had established a college or religious seminary where the students take most of their work in the university and then have some theological instruction in the college itself.

Someplace in your notes you asked something about how I financed my educational work and I told you about the flock of sheep, and that was my chief source of income. But I didn't require much income.

WKB: Five dollars a month for your rent.

CBH: Yes, and $2.75 a week for board my first year. And a little for laundry.

WKB: Did the sheep pay for this or did you have to work part-time too?

CBH: No, the sheep paid for that until—well, they paid for it all the way along, with just a little help from me from time to time. By the time I was a sophomore I'd established myself well enough in the mind of one of my freshman professors, a botany professor, that he said, "The university's given me a little money for an assistant, and I need somebody to mount plants in the herbarium on sheets, and to wash dishes and bottles of various sorts." He said, "I can't pay you very much, but I'll pay $50 for the year."
CBH: I did what the job called for, but that $50 was quite a lot of money and it helped me through my sophomore year. In my freshman year the regular professor of botany was on a sabbatical leave, and he had a substitute. The man who substituted for him and gave me this $50-a-year job was Dr. Howard S. Reed, who later on came to the Citrus Experiment Station at Riverside and was on the staff there. During my active period as dean I brought him to Berkeley and he was in our department of botany here for many years. He was the man who gave me that $50-a-year job.

WKB: You had an opportunity to reciprocate.

CBH: Yes. The regular professor of botany was B.M. Duggar, one of the outstanding plant physiologists of America. He went on from Missouri to the Shaw Botanical Gardens in St. Louis, and from there to Cornell, or maybe he went from Missouri to Cornell and back to Shaw, but he was connected with those two, and ultimately ended his career at the University of Wisconsin, a very distinguished botanist. Dr. Duggar gave me a well-paid job in my junior year. I had a student assistantship that paid me $150 a year for the nine months helping in the laboratory and just as a general student assistant, going around and looking in the microscopes, helping the kids in their laboratory work find and record what they were supposed to see.

By my senior year I was given another student assistantship, this in animal husbandry by the professor of animal husbandry, because my interests were basically agronomy and animal husbandry. That was the type of farming that I'd grown up with and my interests were in that field. I had another student assistantship. And then the university had some scholarships, again $50 scholarships, six of them in the university, and one of them was set aside for agriculture, and that was awarded me at the end of my junior year as the student who had made the highest scholastic record. So there was two $50s, and two $150s, altogether $400, and the sheep provided the rest of it for my entire college course.
WKB: Did you continue to live in the private home you described?

CBH: No. During the freshman year there were about half a dozen of us who decided it would be a nice thing to live together. We didn't want to join fraternities, couldn't have gotten all of us into a single one, anyway, and we wanted to be together.

WKB: There were fraternities there?

CBH: Oh yes. Fraternities, and I had invitations from two or three, but the agricultural students who were fraternity men were those who—most of them—either had too much money or something. They didn't take life very seriously and they hadn't done so well in other parts of the university, so they came over to what was called a "cow college," easy to get through if you planned well. Well, let's not say it was too easy to get through, but perhaps it didn't require quite the mental strain necessary in engineering, or law, or medicine. So these students didn't have a very good intellectual reputation.

And when an invitation came to me one time—the first one—to join a fraternity, I was a bit impressed, as a youngster, until I began to think about it seriously. And I just had to make up my mind on one question and I had the answer. Do you want to go on, continue to work with this gang that you've been growing up with in the college of agriculture, who were running things, were doing things, or these others? And there was no question. I wanted to be associated with these kids who were doing things.

Let me give you an illustration of another thing that this famous class of '08 did. About the time we were sophomores, I guess, the college of agriculture built a beef cattle barn. So some among us determined it would be a nice thing to "warm" that barn. It was customary in that part of the country when you built a new house on the farm, or a new barn, to have a warming, house-warming, barn-warming, or what have you. It generally took the form of a country dance, you know. People came in and had plenty to eat and a general good time, just a social gathering to celebrate the event. So we thought we'd better "warm"
this barn. Now that first barn-warming must have taken place around 1905 or 1906 and we "warmed" that barn every year as long as I was an undergraduate.

During my senior year one of my classmates and I—we'd had the barn-warming in the autumn, along about October, usually before the weather was too cold, but that year an early cold spell came after we had set the date and made all the plans, and we didn't know how we were going really to warm the barn for this dance—this lad and I, again without saying anything to the professor of agricultural engineering, went over to the laboratory which was right close to the barn, pulled off the wall a big radiator made with steam pipes, hung that up in the loft of the barn, ran a pipe from it down to the group, backed up a J.I. Case steam tractor, fired that tractor, and piped steam up into the loft to heat the barn, especially for the girls.

That barn-warming, that stunt which my class started, still continues as the annual dance, now held in the university gymnasium, but it's the annual dance of the college of agriculture in that university up to this day. So you see, this class of mine had some imagination. The lad who with me worked out the scheme of heating the loft of the barn later became dean of agriculture at the University of Illinois.

WKB: Who was that?

GBH: Henry Rusk was his name. Another one of my classmates, and a roommate, was Howard Doane. Doane later on developed one of the most successful agricultural consulting services in America. It still exists and Doane is still living, but he's chairman of the board now.

Now, let's go back to the story.

WKB: That's right. We were speaking of where you lived.

GBH: Where I lived. Six of us: Henry Rusk; Howard Doane; Earl Rusk, Henry's brother; Bob Howard, who was the brother of W.L. Howard who succeeded me as director of the Branch of the College of Agriculture at Davis when I went to Europe in 1924; and Henry Krusekopf, "Kruse," who later became professor of soils and spent
CBH: his entire life at the University of Missouri. He just retired a year or so ago. Well, there were the six of us, all told, who decided it would be nice to live together. There was an older man in the college of agriculture, named Long, C.M. Long, who was a class or two ahead of us, who was married at the time, and under his guidance and his help these six lads rented a house. We didn't have any money but we rented a house, hired a cook, and ran the thing. We took in some other students, accepting them not as members of our group but as roomers and boarders to help keep the enterprise solvent.

We started there what we called the "Farmhouse," a good agricultural term, as a boarding and rooming club. We struggled through that year and made it. By that time we were more than ever convinced that this was a good idea, so we began to enlarge our membership and actually elected students to this club.

Now I told you why I didn't become a fraternity man. The rest of them felt the same way about it so we formed this club. It is now known as the Farmhouse Fraternity, a national professional social fraternity. Mr. Howard, Bob Howard, went to the University of Nebraska upon graduation in 1908 in horticulture. Henry Rusk went to the University of Illinois. They both found there groups of students just like we were, farm boys, but serious-minded, and encouraged them to form similar clubs, and they called them the Farmhouse, also in Lincoln, Nebraska, and at Urbana, Illinois. Those three clubs existed independently until about 1920 whereupon somebody thought it would be a good thing to bring them together, form some sort of connecting link between the three of them. Accordingly we set up a national organization and I was the first national president of it.

WKB: So they had the alumni association too.

CBH: That's right. We refused to call ourselves a fraternity up until the early 1920s. If Woodrow Wilson had to abolish fraternities at Princeton, they must be wrong, we reasoned. Now Farmhouse differs from other fraternities only in its unique name.

WKB: You don't have any Greek letters?
CBH: Not a Greek letter in it. And it's carried that name, Farmhouse, right from the beginning back there in the fall of 1905.

WKB: About how many chapters does the fraternity have now?

CBH: It now is spread throughout the Middle West. I think there are fourteen or fifteen chapters now. It has one distinction which we founders are still very proud of. Wherever it exists it more often than not, and by that I mean in ninety per cent of the cases, leads the entire student body in scholarship.

As I look back on it now, there's just one handicap. Although I helped start this thing and have been in it all these years, I really don't think subject-matter fraternities are a good thing.

WKB: Too narrowing.

CBH: Well, it certainly isn't broadening.

WKB: Do you still participate in its affairs?

CBH: No. No, I went back to Columbia last June for the 50th reunion of my class. Howard Doane and Henry Krusekopf were there. They took me out to see the house where the chapter now lives. It was commencement time and most of the undergraduates had left. No, I have rather lost track of it.

When I was at Cornell I served as the national president for two or three years. When I came to California I gave up the presidency of it. Also at the same time I was the national president of the fraternity of Alpha Zeta. That's an agricultural honor society. I served as the national officer, called the high chancellor, of that for about ten years.

Agricultural Education at the Turn of the Century

WKB: What was the curriculum like at the University of Missouri?

CBH: Well, I think to understand the agricultural curriculum in those days we ought to go back for a moment to the Land Grant College Act, the Morrill Act of the Congress. The Morrill Act set aside a certain portion of the public domain, 30,000 acres for each senator and each congressman, the proceeds from the sale of which were to provide—it's quoted right here—"the endowment, support
and maintenance of at least one college in each state where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

This act was the first expression of the government of this nation in the promotion of education for the industrial classes. It was also the first example of public support, at the federal level, of higher education. The industrial classes in those days meant primarily agriculture, plus artisans, mechanics, people whose only opportunity for education beyond secondary school was through an apprenticeship. The Land Grant College Act started out colleges of agriculture and what has turned out later on to be our schools of engineering.

All right. With that as a background, the colleges of agriculture started out to teach agriculture, but there wasn't much to teach. There was little scientific basis. The first teachings were, so far as agriculture is concerned, empirical teachings, farm practice, things of that sort. Then in 1887 Congress took the next step, a very important step, in building what we now have by the passage of the Hatch Act which established agricultural experiment stations in the colleges of agriculture that had been started before. And that was the first nationwide step toward scientific research in the field of agriculture.

Now, roughly up to the turn of the century the colleges of agriculture didn't have very many students and they didn't have much of agriculture science to teach. So they turned to the basic sciences, that is, to the physical sciences, physics, chemistry, and the biological sciences, botany, zoology, things of that sort, with a little agriculture, which wasn't too bad, because they were dealing with the sciences that are basic to agriculture, which provide a pretty good foundation.

Now, what happens in this: by the turn of the century, the
CBH: first decade, let's say, of the 1900s, they had the agricultural experiment stations going which developed a certain amount of knowledge that hadn't existed before, available for teaching. But then the pendulum swung too far. They began to teach agronomy, horticulture, animal husbandry, dairy husbandry, poultry husbandry, etc. But they hadn't gone far enough by that time to lay a very firm scientific basis for that, so the agronomy that was taught, and the animal husbandry, was more or less practice. And that took up a lot of time, with little left for more basic studies. Interesting to us students, of course.

WKB: Wasn't it valuable to those who were going back to the farm? Or did they already know a lot of that?

CBH: Well, yes, they knew some of it, and it was interesting. Yes, it was valuable in a way, but it didn't provide that mental discipline that a youngster ought to have in a university.

WKB: It wasn't meaty enough for a college curriculum?

CBH: No, no. Therefore I submit, and I've said so publicly many times, that my generation of agriculture school students were the poorest-educated students that America had produced in the field of agriculture. The colleges of agriculture also suffered from another handicap. Too many of them measured their success and the success of their teachings by the percentages of students who went back to the farm. They were criticized very severely: "Why don't you serve the nation, the states, by setting up these colleges of agriculture for the students? You're educating them away from the farm." And that stung just a little bit. So they went overboard in trying to interest their students in going back to the farm, let's say, and sent them back less well-educated men and women than they would have been with a stronger curriculum.

Now today we have brought science back and have developed through agricultural experiment station activities research to strengthen our body of scientific knowledge in relation to agriculture, so students in agriculture now get a much better-balanced curriculum. In my undergraduate days the curriculum was pretty well prescribed. We had to take agriculture courses in animal husbandry and in agronomy, in soils and horticulture, in dairying, and so on.
WKB: Did you have to take things like English?

CBH: Oh yes.

WKB: You had the regular college requirements?

CBH: The regular college requirements in English and chemistry, and some work in physics. But there was no work required in history or even in foreign language, although I had had four years of Latin in the high school and two years of German. I didn't go any farther. There was no mathematics required and certainly no philosophy.

WKB: Was this detrimental to you, do you think?

CBH: Yes, yes, I think so.

WKB: In your future career?

CBH: Well, I've tried to make up for it to some degree. I would insist that no one, and I often told my students so, no one should assume he is an educated person by the attainment of any degree, that education is a lifelong process. I have perhaps during life had to do certain things in fields of interest that if they had been opened up to me as an undergraduate I might have gone farther into and certainly enjoyed things more.

WKB: Do you recall any professors of yours that you felt were outstanding or who influenced you greatly?

CBH: Yes, a few. I'll tell you first about the chemistry professor, and I was afraid of him. I was so scared that I was going to flunk, because he had the reputation on campus of being a particularly hard teacher for engineers and agriculture students. I took a course in chemistry every semester of my undergraduate career except one, and yet because I didn't get the right sort of basis, I never could have become a chemist. And yet I think I've got intelligence enough to grasp the principles had we had a chemistry teacher like Joel Hildebrand in my freshman year. I had had no chemistry in high school and I jumped into that new field and I was just afraid. I boned and studied and probably tried to memorize things too much, as I look back on it now as a teacher.

Later on when I got into my own field of scholarship, genetics,
CBH: I found much the same kind of reasoning, you see, and knew that students couldn't memorize it. I used to tell my students at the end of the term to bring all their notebooks and textbooks they wanted to to an examination. I didn't care what they did. I said, "I'll ask you questions which will prove to me whether you have grasped the fundamentals here."

And that's what I think is good teaching, to stimulate the students' interest and curiosity.

WKB: In other words, you feel that this chemistry teacher was not a good teacher.

CBH: No.

WKB: I think that's the way chemistry is often taught, by memorizing formulas, and so on.

CBH: Yes, whereas you want to get the principle of the thing, you see. I later on went into the field of genetics, and I think one of the things that stimulated that interest was a course I had in animal breeding by Professor Mumford, who was the professor of animal husbandry, F.B. Mumford, who later on became dean of the college of agriculture at the University of Missouri. I knew him for many years and counted him a very close personal friend. In his course of animal breeding, as I look back on it now, there was very little science. It was based on superstitious beliefs and practices and animal improvement, and I knew that a lot of that couldn't be true, and I was going to find out if it was true or not; it stimulated my interest.

WKB: Any other professors that you recall?

CBH: Well, here's one of my first, Professor M.F. Miller, in the photograph here. I had many contacts with him. He gave me my first academic job, so I've always had a warm spot in my heart for him. When I graduated, in fact before I graduated, he gave me my first employment in the educational world as an assistant in agronomy, at the munificent salary of $800 per annum.

Henry Jackson Waters was dean of the college of agriculture of the University of Missouri during my undergraduate days. He left the University of Missouri to become president of what is
now Kansas State College at Manhattan during the summer of 1908, right after my graduation. Well, Waters was a dynamic individual, quite an able man. He had studied briefly in Germany as many agricultural teachers of his generation did because there was no graduate work offered in agriculture in this country at that time. Had he turned to and devoted his attention to scientific research he could have become a great scientist, but he grew up on a farm and he was interested in agriculture and rural life and rural people. And as a very young man, even younger than I, he got lured into the administrative work and so he was dean of agriculture at that time. For some reason or other, I don't know why, but for which I shall be eternally grateful, he seemed to take a special interest in this green country lad that he found among his students, and we became, well, fairly close friends, as close perhaps as a youngster and a man, in those days twice my age, could be. And I formed the habit of consulting him as long as he lived, whenever I was about to make a change in my career. I remember when the invitation came for me to go to Cornell, talking it over with him before I finally made up my mind.

But the one that I remember most was when the invitation came to come to California from Cornell. Waters, at that time, had left the presidency of Kansas State and had joined Mr. Nelson, who was owner and publisher of the Kansas City Star and Times. Waters was editor of an agricultural publication owned by the Kansas City Star. I remember calling on him in his office in Kansas City, talking to him about this, and he advised me to accept this invitation from the University of California. Then we visited and finally, when I had taken up as much of his time as I should, and I got up to leave, he said, "Wait a minute." He spoke rather rapidly. "Hutchison, you've done pretty well so far." (By the way, I had attained a full professorship at the University of Missouri when I was about twenty-eight, and one at Cornell by the time I was thirty-one.) He said, "You've done pretty well so far, but you're a youngster yet and you've
CBH: got a lot to learn. When you go out to California you'll find a lot of things you don't like. You'll want to stop and throw up your hands and say, 'Now, this can't go any farther.' You'll be tempted to do it, but don't do it." He said, "When you go out there, you jump into the stream and swim with the others, but you swim like the devil"—those were his very words—"so that when you get down here where the stream turns you can be in the lead and turn them in the way you want to go."

I was thirty-seven years of age when I took this responsibility at Davis, and this was awfully good advice for a youngster, and I've had occasion to use it many times. I was very fond of him.

WKB: Did he teach you when you were at the University of Missouri?

CBH: No. I can't remember ever having classes with him. I don't think he did. He might have had some seminars or given a few lectures.

I also recall Professor Whitten who later came to California. I had left to go to Cornell when he was still at Missouri. Then Dean Hunt brought him out from Missouri, and he was here when I came. He died within a few months after I came. He was not a great scientist but a fine teacher, and one of the most gentlemanly of men I have ever known any place. He used to be someone I would visit often in his office, when I was an undergraduate. He smoked as much as I do and he would ask me to be seated, and take out his pipe, and start to fill it, and he would say, "Will you excuse me if I light my pipe?" A mature man talking to a youngster—charming, charming fellow.
Claude B. Hutchison, Senior Class President, University of Missouri
TEACHING AND GRADUATE WORK

WKB: When you were attending the university, did you intend to go back to your farm?

CBH: Yes. I fully expected to, but my older brother, whom I spoke of the other day, returned to the farm. The farm wasn't large enough for both of us, so I decided to accept this position offered to me, which was to look after a whole string of field experiment stations, soil trials, crop variety tests, and things like that scattered all over the state. First I was an assistant and then an instructor of agronomy. The first work I had was at these field stations in the summertime and then I would teach in the regular university session.

WKB: You were teaching?

CBH: Oh yes. The department of agronomy included field crops and Professor Miller turned over the field crops to me. I was beginning to get into plant breeding, improvement of crops, as part of the concern with what I was doing. That continued to about 1912. I had always expected to return to farming but by that time I was slipping a bit on that idea. This early work in the academic field was most interesting. Finally I began to think that after all I might have a richer and more useful life in academic work than in farming. If so, then I needed more educational preparation and began to plan for some graduate study.

Graduate Work at Cornell

CBH: At that time one of the leading centers of plant breeding was at Cornell. Professor H.J. Webber, who later came to California as director of the Citrus Experiment Station at Riverside, was head of the department. Professor B.M. Duggar, for whom I had served as student assistant at Missouri, was professor of plant physiology at Cornell. Professor E.G. Montgomery, whom I had met at the University of Nebraska, a distinguished
CBH: cereal crops plant breeder, had also gone to Cornell. It was with these three men—Webber, Duggar, and Montgomery—that I wanted to study.

Duggar, who had known me at Missouri, was interested in me and instrumental in getting a fellowship for me, and the University of Missouri granted me a leave of absence on part salary, so I was on my way. But, after making all the arrangements to study with them, Webber came out here to the University of California as director of the Citrus Experiment Station that fall and Duggar, I believe, went to St. Louis to direct the Shaw Botanical Gardens at Washington University. So I missed those two.

I left the University of Missouri in the fall of 1912 with the rank of assistant professor and I came back the next June with the rank of professor—jumped one whole rank. Potential agricultural scientists were not too numerous in those days.

WKB: And you got your master's in agriculture at Cornell?

CBH: That's right, at Cornell in 1913.

WKB: Why did you decide on plant breeding?

CBH: That crazy course in animal breeding, I guess. No, not altogether. It was also my interest in improving field crop production in my native state of Missouri and my curiosity about the mechanisms of heredity.

The year at Cornell was not too satisfactory. Dr. Webber was in the process of closing up his work at Cornell and moving to California and I had little contact with him. There was little strength in instruction in plant breeding left and practically none in genetics, its underlying biological science. Duggar had left for St. Louis, but his course in plant physiology was handled by Lewis Knudson, an undergraduate classmate of mine at Missouri, who had accompanied Duggar as a graduate student to Cornell, and by O.F. Curtis—both men later on professors at Cornell.

My work with Montgomery was both interesting and stimulating
though since I had but one year it was of necessity largely lib-
rary research.

Teaching, University of Missouri

At the close of the year at Cornell (1912-1913) I returned to Missouri as professor of farm crops. The department of agrono-
my of which I was a member had been divided during my absence into a department of soils, in charge of Professor Miller, and a department of farm crops, of which I was put in charge.

The three years (1913-1916) at Missouri were rather un-
eventful and somewhat unproductive. Equipment and facilities were meager, the staff small, and teaching, both resident and extension, was the main function of the department. These were the years of the beginning instruction in agriculture at the high school level, culminating in the Smith-Hughes Act of Con-
gress in 1917 providing federal support for vocational agricul-
ture and home economics education in high school. They also brought the Smith-Lever Act of Congress in 1914 establishing the agricultural extension services in the U.S. Department of Agriculture and the several land grant colleges and universities in the various states. To prepare high school teachers of ag-
riculture and extension teachers in the university I taught courses in agronomy in the summer session frequently. Thus there was little opportunity for research.

Graduate Work at Harvard

Sometime during the spring or early summer of 1916 there came an invitation from Professor R.A. Emerson, who had succeeded H.J. Webber as head of the department of plant breeding at Cor-
nell, to join his department as professor of plant breeding, and take charge of the entire program of instruction in genetics and plant breeding. He assured me that my own teaching load would
not be heavy and that I would have a satisfactory amount of time for research. This was indeed a challenging opportunity and I accepted, with the condition that the appointment be made effective with the beginning of the 1916-17 academic year, with a leave of absence without salary to permit me to spend the year at Harvard studying with E.M. East and W.E. Castle, two of America's leading geneticists of that day.

This decision aroused some concern among my friends and my superior officers at Missouri. I well remember my conversations with my good friend, Professor Mumford, who was then dean of the college of agriculture, and with the president of the University of Missouri, A. Ross Hill, who had been dean of the college of arts and sciences at Cornell before he became president of the University of Missouri—both of them thought I was making a very serious mistake to give up my own department at Missouri to become a full professor, of course, but second, not even second even, about fourth, let's say, in line at Cornell, but it was, as subsequent events have proved, one of the wisest moves I ever made.

WKB: Had you talked this over with Dean Waters before making that move?

CBH: Yes. He had left Missouri, so he was unbiased, and he thought it was a good thing to do.

WKB: Sounds like a wise move.

CBH: The year at Harvard was delightful—altogether the most stimulating of all my years as a student anywhere. It was spent in study especially with Professors East and Castle. Dr. Castle was an unusually inspiring teacher, and the course I had with him dealing principally with the physical basis of heredity provided many of the basic concepts I used later at Cornell in my own introductory course in genetics.

Incidentally, many years later, after I had become dean of the College of Agriculture at California, E.B. Wilson, a distinguished biometrician in Harvard's school of public health, who had been in California as a Hitchcock professor the year
before, wrote to me that Castle was retiring at Harvard that year and that he didn't want to stay in Cambridge. He wanted to get into a new environment and was interested in coming to California. When Wilson said it wouldn't cost us much because Castle had his retirement income from Harvard and a grant from the Carnegie people would pay all his research expenses and that all we had to do was to provide him with a desk and some cages for his experimental animals, I jumped at the chance and brought him out as a member of our genetics group. He still lives in Berkeley on Spruce Street. He's no longer active, but for more than fifteen years he was a full and active member of our department of genetics. He had his ninetieth birthday only a few months ago. So I added a distinguished geneticist to our group at very little expense to the University. He was happy, productive, and liked it here.

WKB: Well, that's the way to do it.

CBH: Another good example of the fallacy of retirement.

WKB: What was your research on?

CBH: My research was in the field of the genetics of the maize plant. You see, East and Emerson had worked together for several years. Emerson was professor of horticulture at the University of Nebraska, but became more interested in genetics than he was in horticulture. Nebraska wasn't a horticulture state, anyway, but they had a department of horticulture. He became interested in maize and worked in this field for several years at Nebraska before going to Cornell. So, East and Emerson had worked and published together and when I got to Cornell I joined in Emerson's group and continued my maize researches with him.

Teaching at Cornell

CBH: Now the post that I accepted at Cornell also called for my taking charge of all the teaching work there in the field of genetics. I had some other people associated with me, but it was my responsibility to develop the instructional program, both graduate
and undergraduate, so far as courses were concerned at Cornell. I had a nice arrangement. I gave only two courses myself. One was in the fall, an introductory course, and I scheduled my lectures for eight o'clock on Tuesdays, Thursdays, and Saturday mornings. I had the rest of the day for research, you see. The nights before—Monday, Wednesday, and Friday evenings—I would reserve in my home and I never went out on those nights but I would be preparing for the lecture the next morning. Then I had a very able assistant who took charge of the laboratory work, you see, and I didn't have to bother with that.

The second semester I gave a graduate course which took practically all my time in preparation. That was pretty strenuous, let's say, because I had lots of reading to do in preparing my lectures and keeping up with class papers and other assignments.

And that's what I was doing for six years at Cornell, happy and content with my lot, when suddenly one morning I reached my office to find on my desk a telegram from Dean Hunt: "Will you meet me in Washington" (on a certain date) "to talk over the possibility of coming to California as director of the Northern Branch of the College of Agriculture at Davis."

WKB: Your teaching at Cornell was both graduate and undergraduate.

CBH: Yes, both. I had an introductory course open to juniors and seniors and graduate students, and one restricted entirely to graduate students. The first course was given in the first semester each year. My excellent associate looked after the laboratory work and I just gave the lectures and quizzes and so forth. And then in the second semester, the graduate course, in which we reviewed contemporary literature and research, and that took an awful lot of time and work to keep ahead of. I didn't do much in the way of research at that time. I would have time to get my maize cultures ready to plant in the spring, and to actually plant them before the semester was over, but most of the time was devoted to that one course and the seminars.
Personal Life and Fraternal Life

WKB: At our last interview you told about Cornell and Harvard and you were just about ready to come to Davis when we stopped. But I thought maybe we ought to go back and pick up what had been happening in your personal affairs. I have a note that you were married in 1908. That was about the time you graduated.

CBH: It was in Missouri, yes, the December after graduation.

WKB: Was your wife a fellow student at the university?

CBH: No, a home-town girl. She didn't go to the university.

WKB: I see. Did you have any children?

CBH: Yes, we had four daughters. The eldest daughter, Helen, was born in 1910, and Ruth in 1912, Betty in 1915, and Lucille in 1919. The first three were born in Columbia, Missouri; Lucille was born in Ithaca, New York, when I was at Cornell.

WKB: So you've had a full household.

CBH: A full household of four girls, yes. And Grandmother, the first Mrs. Hutchison's mother, lived with us.

WKB: I also have you listed as a member and president of Alpha Zeta, an honorary agriculture society.

CBH: Yes, I was a charter member of the Missouri chapter of Alpha Zeta, which was established in 1907. I became high chancellor—that's the national president—of Alpha Zeta when the fraternity's biennial conclave met at Columbia, Missouri, at the University of Missouri, in the summer of 1914. And I served in that office for approximately ten years, until I came to Davis. At the first conclave after my coming to Davis, held, I believe, in 1923, I asked to be replaced.

Then after World War I was over the chapters were revived again, but I'd like to give you a little of the history of that group. The Alpha Zeta fraternity was established at Ohio State University in 1898 in an environment and for reasons similar to those at Missouri in which the Farmhouse fraternity was born. It was a professional social fraternity in which a group of
CBH: Similarly interested students could live and work together. The first few chapters established, Cornell, Penn State, Minnesota, for example, as well as the mother chapter at Ohio State, all maintain chapter houses. Elsewhere across the country Alpha Zeta is a professional honorary society.

During World War I all chapters became inactive. I assembled and kept in my study in our house in Ithaca the central files, records, etc. This fraternity was dormant through the academic years 1916-17 and 1917-18. And, as I've said, after the war it was revived and the fraternity began expanding into other universities. We employed a general secretary and set up national headquarters in a little town in Illinois where he lived. He was a country newspaperman. We maintained the offices there as long as I was active on the high council. Later on they were moved to Washington, D.C., where the national headquarters are still maintained.

WKB: What does the fraternity do?

CBH: Well, it attempts to promote scholarship and encourages the development of leadership among agricultural students and through them everything good for rural life, including the advancement of agricultural education and research.

WKB: What did your duties include, aside from keeping the whole fraternity going during the war?

CBH: Well, in those days we kept in touch with the various chapters. I visited many of the chapters in the country myself during that period and encouraged the lads to keep their local chapters active on their respective campuses, and doing something of importance to promote scholarship and leadership, important campus activities and all the good things that organizations of that sort attempt to do to promote character, integrity, ability, and other qualities in the development of young men.

The fraternity today has chapters in almost every state in the Union, at first confined to the land grant colleges and land grant universities. Here in the University of California the California chapter was established in Berkeley. Another chapter was established later at UCLA and ultimately a third chapter was established at Davis. So for a while we had three chapters within
CBH: the University of California. Presently the chapter at Berkeley has become dormant or perhaps suspended due to the fact that agricultural students are now at Davis.

WKB: Was this before you came out here or after?

CBH: The first chapter in California was established several years before I came to the University. I well remember visiting the California chapter as high chancellor in 1915. That was the first time I had ever been to California. I came back and visited the chapter again in 1918.

Decision to Go into Administrative Work at the University of California

CBH: So I formed some friendships in the University of California on those two occasions, one of them being Dean Hunt. He was here at that time. But I first met Dean Hunt at the old graduate school of agriculture held at the University of Missouri during the summer of 1914. Over a period of roughly twenty years this graduate school of agriculture was held every second summer at some important agricultural college or university. This began at about the turn of the century. The program consisted of lectures and demonstrations on prominent agricultural subjects, in the agricultural sciences, given by distinguished scientists from at home and abroad. That was long before there was much formally organized graduate study in the agricultural sciences in American universities. Here and there, to be sure, there were at that time some small beginnings of graduate instruction in the agricultural sciences, but they were not of great significance.

WKB: So this was a kind of post graduate work.

CBH: That's right. It was post graduate work; it wasn't given for credit or for a degree, however it served a useful purpose by bringing leading researchers and teachers in agriculture together to advance agricultural science. Today we would doubtless call it a refresher course. But it was more than a refresher course. To many, perhaps most, it was something quite new.
WKB: Under whose auspices was this graduate school held?

CBH: It was always conducted under the auspices of the office of agricul-
tural experiment stations of the United States Department of
Agriculture. And Dr. A.C. True was the first director of that off-
lice that I knew. He organized and directed this school and ran
the show for many years. He was called the dean of this school.

WKB: How long did that run?

CBH: Oh, I think something less than twenty years, from roughly 1900 up
to about World War I. I am quite sure it was never held again af-
ter that war.

WKB: Now, when did you meet Dean Hunt?

CBH: As I have said, I met him first at that meeting in 1914 at the Uni-
versity of Missouri. He had just come to California the year before
from Pennsylvania State College. He was back east that summer for
that graduate school, an assembly of agricultural college adminis-
trators as well as professors.

WKB: What did you think of Dean Hunt?

CBH: I was very fond of him. He was one of America's leading agricul-
tural educators of his generation, highly respected by his contem-
poraries. There was only one — maybe this is the place where one
ought to be a little careful — but there was one bit of education-
al philosophy which Dean Hunt had that I couldn't subscribe to.
I've told you that in those days there was little formal graduate
work offered in the agricultural sciences, and most young men of
those times entering agricultural teaching and research didn't do
much graduate work. Up until the turn of the century it was cus-
tomary for American scientists to go to Germany for graduate study.
Quite a few people over the years did that in agriculture, because
Germany had organized her educational and research work in agricul-
ture on a higher level than we had; we were just beginning. So it
was customary to go abroad for advanced work, and especially to
Germany. But gradually instruction in agriculture at the graduate
level was inaugurated in the United States. But it struggled for a
while, for quality and substance, and for acceptance. Dean Hunt
and others too seemed to have the philosophy that a youngster who
I: couldn't get a good job right after he had attained his bachelor's degree wasn't too much of a heavyweight anyway. They seemed to think that only those who couldn't get a good job were the ones who went on to graduate study.

There was a little element of truth in this, of course, but it was a very short-sighted policy because what happened was that many of the young men of my and preceding generations following such advice lost the opportunity of a rigorous period of graduate study to prepare us adequately for academic work. In other words, under the demand for men then existing, many young men were assigned to take on important responsibilities before they were educationally prepared for them. And it took agricultural educators of this nation several years, perhaps two or three decades, to realize that, but once they did realize it then we began to encourage graduate work on the part of agricultural students, and ultimately advanced the academic standards of all agricultural colleges.

At the time I became dean of this College of Agriculture in January, 1930, there probably weren't more than a dozen men on our entire staff with a Ph.D. degree. Long before I retired in 1952, we had established the rule that we would not appoint anyone even to an instructorship in most fields without the doctorate. So we changed here in about three decades.

I would say, from a situation that Dean Hunt fostered, of taking able young fellows who had made good records as undergraduates and putting them immediately into responsibility beyond their current capacity, we changed to a plan which required a period of thorough-going graduate study, evidenced by the attainment of the doctorate, before we would even give them an instructorship. This, I am happy to say, is the usual practice today in most other American agricultural colleges. I like to believe that California has helped bring this about.

And I don't place this criticism particularly on Dean Hunt; I mean to say that this was the philosophy that was held in agricultural education circles generally throughout the country. There were some exceptions, to be sure, here and there in other
institutions, particularly I think noted was Wisconsin in that respect. A former dean there, a bacteriologist, Dr. H. R. Russell, was a particularly outstanding leader in developing and maintaining instruction and research programs in agriculture on a high academic level. He set high standards for others of us to emulate. He did more in his time, I think, to bring science into agriculture and make it useful, to use scientific methods and the techniques of the basic sciences to study agricultural problems than anyone else among his contemporaries.

WKB: Well now, I understand that Dean Hunt sort of stiffened up the agricultural courses here.

CBH: Yes, oh yes, he did. There's no question about that. He strengthened the curriculum very markedly, and made many other improvements in the College of Agriculture. In fact it is now generally forgotten that Hunt was brought to California by Benjamin Ide Wheeler very definitely to do some "housecleaning." That was not an easy task even in those days, much less today. Possibly the firmness required by this task was the reason Hunt was regarded as a czar in some parts of the University. Hunt, too, did a good deal to bring science into agriculture, but Russell of Wisconsin probably did more than anyone else of that generation of agricultural college deans to establish his college of agriculture on a sound scientific basis. And this, by the way, is perhaps a good spot to answer the question, why'd I come to Davis.

I had left the University of Missouri where my interests, both emotional and scientific, were in agriculture. I was then at Cornell. My title was professor of plant breeding, but I was really professor of genetics. I was teaching theoretical genetics in that university and devoting all the time I could spare from my classroom work to research in theoretical genetics using the maize plant as my material. I was rather removed from agriculture, certainly in the sense I had been close to it at Missouri and later in California.

And one morning when I got to the office for an eight o'clock lecture I found on my desk a telegram from Dean Hunt: "Will you
meet me in Washington to discuss the possibility of coming to Davis to be director" of what he called in that telegram "the northern branch of the College of Agriculture." Now I was happy and content at Cornell doing what I wanted to do, and having a lot of fun out of it. I liked to teach, and I was getting started pretty well in a research program, with all the time and more than I could reasonably ask, for research. My teaching load was relatively light. Three of my colleagues, fine professors, had no formal teaching duties at all. They were research professors, though not called such. I didn't envy them, however, for I liked working and my contacts with students.

So here I was faced with a problem, a decision to make that might bring quite a change in my life. I was inclined at first to brush it aside, not taking Dean Hunt's proposal too seriously because, as I say, I was perfectly happy, and California was a long ways. I had visited Davis. I knew that it was a small place and not much development there. But finally, after a day or so reflection, I concluded that at least I ought to show Dean Hunt the courtesy of traveling down to Washington, at his expense [laughter], to talk with him about it, and I did so.

I found him a rather persuasive individual, and interesting. Like so many migrants to California, he was a good salesman. And I suppose there was still in the back of my mind that emotional interest in agriculture and rural people.

And yet I had matured far enough to realize that even though I had broken away for two years of graduate study, I hadn't had quite what I thought an agricultural researcher, or even a theoretical geneticist should have had to devote his life with success to that career. And I hadn't had even that training, you see, at the proper age. I was, frankly, a little too old in 1922 to get into basic research, because I've always thought if a young man doesn't do something of importance -- have some important research accomplishment by the time he's thirty, he seldom or never does. I perhaps could have gone along, filling in little gaps here and there, but new, broad ideas, new fields, are opened up, it's my
observation, by young people.

In other words, you felt your talents were not especially towards research?

Well, yes.

Or your opportunities?

No, I had all the opportunity one could ask. I can't say that.

Well, did you enjoy research?

Yes, very much, oh yes, no question about that, and I love teaching. I love youngsters. And that's been one of the great regrets of my life, that I can't point to a group of students who I've helped train. I tried in another way to help in some young men's advancement by finding them, adding them to one of our departments, and giving them an opportunity for growth in teaching and research. And over the years when some young lad I had helped bring to the University did something of more than passing importance, won a special fellowship, a special award or membership in some learned society, or the National Academy of Sciences, I was as thrilled as any proud father could possibly be.

So knowing, or at least appraising as dispassionately and objectively as I could, my own limitations, I thought I saw in this California situation another opportunity that attracted me. I had long realized that agriculture, after all, was not something in itself. It was merely a field in which to apply and use science as tools to study agricultural problems. I recognized that agriculture research, generally speaking throughout America, with a few exceptions here and there, did not have a sound scientific basis. Too much of the work of the agricultural experiment stations was empirical in nature, conducted by trial and error methods just trying to find out something that might be useful on American farms. And I thought, "Well, maybe your contribution in this world is going to be found in an institution that believes as you do, and gives you the opportunity to gather around you a group of able young men, to encourage them and help them make the scientific contributions. In other words, your contribution to science hereafter will not be done out there in the plant-breeding garden or in the laboratory,
but it will be made indirectly through the assembling of a well-trained and able group of men to be encouraged, supported, and if necessary defended, not necessarily directed, to explore the frontiers of knowledge on their own."

So I think it's fair to say that it was that challenge, the realization that much of the work of the agricultural colleges and agricultural experiment stations of America was not well-founded scientifically, that challenged me to take over an important administrative post when I was only thirty-seven. No wonder Dean Waters could say to me, "You're a youngster yet, and you've got a lot to learn."

WKB: How did the salary that was offered to you compare to the one that you were getting at Cornell?

CBH: That was the biggest single increase in salary that I've ever had in my life. A fifty per cent increase in salary was what I got by coming to California from Cornell.

WKB: Was your family interested in moving to California?

CBH: Not much, not too much. The kiddies liked it but Mrs. Hutchison was very unhappy at Davis.

WKB: Well, what did Dean Hunt think of establishing the college on a more scientific basis? Did that go along with his ideas?

CBH: Oh yes, I'm sure it did. But he was an older man, more experienced and doubtless more conservative. I had the exuberance of youth and hadn't yet discovered there are so many things in this world which can't be done.
DIRECTOR OF THE NORTHERN BRANCH OF THE COLLEGE OF AGRICULTURE, DAVIS, 1922-1924

Beginnings of the University of California and the College of Agriculture

CBH: Let's stop now and approach Davis. I've told you something of my personal life. I've been talking rather personally here, you see. Now let's talk about the College of Agriculture and the University of California, including Davis and everything, its early beginnings.

The University of California was chartered in 1868, you'll recall. The first constitution of the state of California -- the state was admitted in 1850 -- provided for a state university. Those old rough miners and farmers who fought their way across the plains and settled this state, many of them had little or no education themselves, but they were able people and they realized the importance of education. After California's admission to the union there was a period of eighteen years, from 1850 to 1868, when there were here and there small attempts; the best one, the largest and most significant one, was the College of California, with their small attempts to provide what we would now call liberal arts education. The College of California, I'm told, was organized, and staffed and developed by the ministers, church people from New England.

There was a movement started, I can't be quite certain of the date, but let's say roughly in the early sixties, to establish a college of agriculture and mining in California. Those were the two important industries of the state at that time. An act was passed by the legislature to this effect, and I think the governor had appointed a board of trustees for the college. Then the Morrill Act of 1862 was passed by Congress. This is called the Land Grant College Act, which sets aside a certain area of the public domain, the proceeds from the sale of which were to be used to establish in each state or territory the kind of a college that I
described the other day.

So the trustees of the College of California said to the legislature -- in effect -- "We will offer our college as the first element in this new university if you will combine, second, the proposal to establish a state college of agriculture and mining, and third, this new land grant college, with its federal support -- if you will combine all three of these elements to form the university." And that's the way the University got started.

The regents of the University took over the campus site that the College of California had purchased, and they built three new buildings, including South Hall and North Hall. Bacon Hall was later. Now, agriculture was to be an important element in the University, and the only building still remaining, the old South Hall (North Hall has long since gone, it was not as well built; South Hall was built permanently), was being used for it and if you look under the ivy there at the motifs under the cornices, friezes, windows, etc., you will see all sorts of agricultural products: fruit, pumpkins, sheaves of corn, sheaves of grain. I'm told in a few cases there are even bananas, which shows the imagination and determination of these people who certainly believed in their new state of California. They were even going to grow bananas some day!

Well, the trustees of the College of California picked out a delightful place in which to live and work in all other things which the University was going to do, but they didn't pick out a very good place for agriculture. The Berkeley area wasn't typical of the agricultural areas of the state. But even that wasn't too bad for the early years of the University, say roughly up to the turn of the century, because agriculture in California up to that time was of a pastoral type, the production of livestock and livestock feed. It didn't make much difference where the College of Agriculture was placed physically.

WKB: It didn't matter where you had it.

CBH: No, it didn't matter where you had it, so long as it was an integral part of the University. So the College of Agriculture was established
here along with the rest of the University, very properly so and very wisely so. Thus right from the beginning agriculture has been an important function of the University and, so far as the land grant act is concerned, the land grant university of the state of California. About half the states, when the Land Grant College Act was passed by Congress, set up their "college of agriculture and mechanic arts" separate from their state university, and about half of them attached them to their universities. Thus here in the West Nevada, Arizona, California, and Idaho attached their college of agriculture to the university, but New Mexico, Utah, Oregon, Washington, and Montana set theirs up as a separate institution. Thus here in the West Nevada, Arizona, California, and Idaho attached their college of agriculture to the university, but New Mexico, Utah, Oregon, Washington, and Montana set theirs up as a separate institution.

Oh, with a separate administration.

Separate administration, separate board of trustees, separate institution. Therefore you have today in the state of Washington the University of Washington at Seattle and you have Washington State College over in Pullman. In Oregon you have the university at Eugene, and the land grant college at Corvallis.

The state college was the college of agriculture?

That's right. They were first called state colleges of agriculture and mechanic arts. You've heard of the term "A&M" college, Texas A&M College, and Oklahoma used it up until just recently, Oklahoma Agriculture and Mechanical College. Utah, I think, called it "the Utah State College of Agriculture," as contrasted to their University of Utah.

Now, the farmers of those states apparently were afraid to entrust agriculture to the rest of the university. Call it an inferiority complex, if you will, of the rural people. Maybe it was. But they were suspicious of the city people and well they might have been, in some cases, for it is recorded that in some of the universities, in the early days, sly attempts were made to divert some of federal funds appropriated by the Congress for support of agriculture to what the presidents and trustees thought were more important uses. The story goes that even here in the University of California although South Hall was designed and built for the use
of the professor of agriculture he ended up with one room in the basement. I am sure the professor was perturbed and possibly angry at this treatment. But if he could come back today and see the magnificent developments the University has made in agriculture he would agree with me that even that was a small price to pay, if it was necessary to keep the College of Agriculture in the University.

Well, what turned out was this. In many of the states the population was so small for many years and the income for the support of higher education so meager, they couldn't maintain two universities, each on a truly university level, whereas they could have had one. Under these circumstances the land grant colleges, generally speaking, trailed in educational quality the universities.

Now California, my own alma mater the University of Missouri, Cornell, Minnesota, Wisconsin, Illinois, the principal and leading agricultural colleges of America, were all originally established as parts of a university. And the same thing is true in Europe and in Great Britain as I learned during the four years I was on the European staff of the Rockefeller Foundation. They have separate agricultural institutions -- the Germans call them "landverschaftliche hochschulen," and then they have their Universitet Landverschaftschulen, so the same pattern is found there. And if you study, as I did, the contributions which those European institutions have made to the advancement of agriculture science in their respective countries, you'll find the duplicate of what has occurred here in America, namely, that those which have been parts of great universities are the ones that have contributed most to agricultural science, and ultimately to the advancement of agriculture practices. Generally speaking, the independent institutions both here and abroad were too much directed toward the training of farmers, per se, instead of educating men and women.

I take it you strongly approve of keeping the college of agriculture associated with the university.

Oh, absolutely.
All right, now that was the situation up until comparatively recent times, until World War II, although I must admit that many of the independent land grant colleges here in America had begun to rise scientifically even before that time. But what has happened? Those independent colleges of agriculture have now become the second state university in their respective states and many of them are calling themselves so.

All right now, that's the general picture. Now let's get back to California. The University was established in 1868 right here in the San Francisco Bay Area on the periphery, so to speak, of the great agricultural areas of the state. There was a small agricultural staff in the University and in the Experiment Station and they didn't have much money, and meager facilities, and yet the people out in the interior valleys and everybody else in California began to realize that those were the areas where agriculture was going to be important in California. So the University, trying to meet that public demand, established a whole string of one-man, one-horse experiment stations over the state in an attempt to study, more or less empirically, the agriculture of these several areas. There was no scientific "atmosphere," no academic associations for these men. No wonder their efforts bore little fruit; and no wonder the University soon abandoned this approach. But I'll discuss these early attempts at agricultural research later when we talk about the Experiment Station.

Another more wisely-conceived approach to research in agriculture in these -- to the University -- outlying, but important agricultural areas, came when the growers of some of California's highly-specialized fruit, nut, and vegetable crops began to see the need of science. Among the first of these were the citrus growers in Southern California. They prevailed upon the regents to establish what was called the Citrus Experiment Station. At first it was a small affair located at Whittier and concerned largely with studies of insect pests and diseases of oranges and lemons. It was later moved to the Rubidoux site in Riverside and still later to the Box Spring site. Today it is a part of the
greatly enlarged Riverside campus of the University.

Establishment of the Davis Farm School

About the same time, and I think a part of the general awakening of California farmers to the fact that the University was not well located so far as agriculture is concerned, a movement got started in and around Sacramento and in the legislature, led by Judge Peter J. Shields, one of Governor Pardee's secretaries, to establish a dairy school. They got a bill through the legislature and an appropriation, but Governor Pardee vetoed it. And the governor said, when he vetoed it, "If you'll come back two years from now, and enlarge your vision here, and put something through the legislature that will enable the state to do what you want to do, not just in dairying, but in other agricultural fields, I'll approve it."

So the second time it came before the governor at the next session of the legislature -- they had biennial sessions -- it went through and the governor signed with an appropriation to purchase a university farm. President Wheeler -- he was the leader, of course, president of the University and the regents supported him -- didn't like this.

They were very classically oriented, weren't they?

It wasn't so much that they were classically oriented, but the fact that they were pleading for holding the College of Agriculture to the University, and on the campus, and in the environment of the University. And they were dead right in that. Here was an attempt on the part of the state to set up something so far away that the president thought it would be very difficult to administer it, and that it might go off on a tangent some way.

But when it finally passed the legislature the regents accepted the responsibility and set up a commission to select this University farm, and they finally chose, after much study and deliberation, a farm that had been characterized by the California
CBH: State Agricultural Society as a model farm. A farmer by the name of Jerome Davis had, where the Southern Pacific Railroad branches, one line going to Sacramento, the other north to Portland, a beautiful farm of seven hundred and some odd acres adjoining the little town of Davis, and known among farmers throughout the state of California as an unusually good farm. One of the reasons, the main reason I suppose, is that it was a piece of the best soil that God ever made.

So they bought the farm, and opened it for instruction in 1905, I believe. It was called the University Farm School and has often been referred to as "the farm that became a college." The academic senate of the University authorized the department of agriculture to give instruction at the high school level in the field of agriculture, including animal husbandry, poultry husbandry, dairy industry, horticulture, viticulture, soils, irrigation practice, farm mechanics, etc.

Now my knowledge is faulty, and I'm not certain whether this was before or after the state established at San Luis Obispo what is now called the California Polytechnic College. This was first called the California Polytechnic School and operated also at a high school level, teaching mechanic arts and agriculture. This institution has evolved over the years into a general state college now. But instruction in vocational agriculture has remained its primary function.

The various agricultural departments at Berkeley soon began to realize that Davis was a good place for experiments, too, so they began to develop research there in their respective fields. And then they saw that when you have good facilities for research you have facilities which can be used for teaching. And so for years regular University students in agriculture would be registered here at Berkeley, take their first two years in the supporting sciences, the physical-biological supporting sciences, and then these students would transfer to Davis for one or two or three or maybe even four semesters of their upper division work, depending
CBH: upon their major. All these people would be registered down here and transferred up there. So you had a mixture on the Davis campus of University students and Farm School students.

WKB: Did they work together?

CBH: Yes, but not in the same classes. There was some trouble among the student body from time to time, but they managed to get along together pretty well in play and other extra-curricular activities.

WKB: Were the Farm School students younger?

CBH: No, not necessarily. Some of them had already been farming, or otherwise working a while. The University set up, as I recall, an age limit. They had to be eighteen years of age. Maybe at first they accepted them at an earlier age, but in my time they had to be eighteen years of age, at least, or high school graduates. Some of them had had some college work elsewhere, and some hadn't had any. Some had had considerable experience working on the farm, some had had little of that. So you had a student body of varying ages and varying educational preparation.

**Efforts to Separate the College of Agriculture from the University of California, 1920**

CBH: Now, all of this wasn't very satisfactory, not really a good pattern to cling to in building a college of agriculture adequate to serve the educational and research needs of such a complex and diverse agriculture as California's. The farmers of the state were still unhappy, so unhappy about it, because they saw so many of their own sons, or the sons of their fellow farmers, going to Oregon for college work, or going back to Iowa; some indeed, I suppose, crossed the country to Cornell and to other institutions in the East. And they said, "Why can't we have right here in California a first-class college of agriculture?"

The students didn't like this transfer business either. They entered at Berkeley, formed social and other connections, only to
be made to break their connections to go to Davis.

One of the handicaps, and one of the reasons why all this evolution came so slowly, was that President Wheeler and his faculty, and of course the regents following along with them, clung tenaciously to the fact that they wanted their agriculture college to continue to be a real part of the University. And it took them an awful long time to realize that they could not use the pattern that Cornell and Wisconsin and Minnesota and Illinois and other institutions in the Middle West and the East had used. Berkeley was not in a good agricultural area. The University had to create a new pattern. And once California accepted this fact and admitted that everything in agriculture didn't necessarily have to be done in Berkeley, that it was possible to develop educational and research work of quality on an outlying campus, a new pattern for the College of Agriculture began to evolve which has attracted generous support of farmers as well as the legislature, and enabled the college to attain its present eminence in the state, the nation, and indeed, the world.

The criticism of the people of the state, especially farmers, of what they regarded as bad planning for and inadequate support of the College of Agriculture, had gone so far that a bill was introduced into the 1919 session of the legislature to take the College of Agriculture not away from Berkeley alone, but away from the University. A new state college of agriculture was proposed, to be built at Davis under the control and jurisdiction of a new and independent board of trustees. Well, that would have been disastrous. So Mr. Sproul, who was the comptroller and the legislative representative of the regents at the time, when he discovered that bill in the legislature was able to persuade the legislature to kill that bill, and in its stead authorize and set up an agricultural commission to study the whole field of higher agricultural education in America, with the hope of learning something from other institutions, what their faculties and administrators thought and were doing that might help California solve her problem.
CBH: All right. The commission made its journey eastward visiting several agriculture colleges, both independent and university, and they came back. I'm told that one of the most ardent proponents of separation on the commission didn't even complete the tour. He saw that he was wrong, dropped out, and came home saying he was convinced that we must never take the College of Agriculture away from the University.

WKB: Oh, he saw what had happened in the other states.

CBH: Surely. Liberty Hyde Bailey of Cornell's college of agriculture went so far as to tell them that he'd rather teach agriculture in a flower pot in a greenhouse than off the campus of Cornell.

WKB: Who said that?

CBH: Liberty Hyde Bailey, one of the most distinguished deans of agriculture America has ever known, and a member of Teddy Roosevelt's rural life commission in the early years of this century, and a very prominent and able educator.

WKB: I was wondering, was the faculty of the University of California opposed to the College of Agriculture being a part of the University?

CBH: Oh, no, not in agriculture, or elsewhere in the University.

WKB: They wanted to retain the College of Agriculture.

CBH: Yes, indeed, but they wanted one of academic quality, one worthy of membership in the distinguished University of California that was emerging. On the other hand, the University didn't have funds or maybe vision enough, at that time, to proceed on their own to develop a college adequate to meet the needs of the state. I think it's fair to say that the University -- faculty, administration, regents -- followed the leadership of this group of very able farmers in California, warmly welcomed their interest and gladly accepted their support in the legislature for increased appropriations to make possible the improvements everyone wanted.

So this commission came home and recommended to the regents that they strengthen the work at Davis, strengthen the curriculum, the facilities, and build a college of agriculture in California adequate to meet the needs of the state, recognizing frankly that this could not possibly be done at only one location. It took the
CBH: state and the University and the people of California a long time
to realize that, but once they did and began to build their own
pattern, then the college went ahead.

Strengthening the Curriculum at Davis

CBH: I have often said that I came to California on the crest of the
wave. The first step taken by the University was to put in lower
division work at Davis so students could enter the College of Ag-
riculture at Davis and spend their full four years of undergradu-
ate work there. So courses in botany, zoology, chemistry, physics,
mathematics and English all were started immediately at Davis.
And in September, 1921, regular University freshman students were
admitted at Davis for the first time. There were some struggles
at first. Some in the University and some even in the College of
Agriculture weren't quite ready to accept this. They felt that
the state had sort of forced it onto them. They still encouraged
some students, as many as they could, to register at Berkeley and
transfer. They were abetted by some parents -- the Old Blues, so
to speak -- who remembered that in their days there was little of
quality at Davis and who wanted their sons and daughters, even if
they were studying agriculture, to have at least some of the ad-
vantages afforded by a year or two of student life at Berkeley.

These faculty people used to say, even after I came to Da-
vis, in the spring of 1922, that they hoped the students would
not spend their full four years up there, but either beginning, or
sometime during their stay in the University, would come down to
Berkeley to get a little of the great educational environment and
culture to be found only in this part of the University. Well,
that was wishful thinking because agricultural students, like all
other students, make their friendships in college. They join fra-
ternities or clubs. They get a job to help their way through
school and so forth. They don't want to just pull up and leave.
So the students kept struggling against the situation, the faculty
struggling on the other side, until finally the faculty made up their collective mind that that was not the way to continue. So we began to enlarge the work in chemistry and physics and mathematics. We introduced history, languages, enlarged the offerings in English, and economics. I got our first history professor, by the way, Dr. Lawrence Kinnaird, with the help of Professor Bolton. Kinnaird was the first history professor out there, and Dr. Walton Bean succeeded him. I well remember when I went to Bolton and told him my problem: I wanted to introduce the next year some courses in history at Davis. I said, "I'm not an historian and I know very few historians but I want you to find a man for me in whom you have complete confidence, one who would be an addition to your own department here at Berkeley."

He immediately expressed interest and offered me his full cooperation, saying he would like to think about the matter for a while. Later on he said, "I've found the man you want; he's over in San Francisco State." (Maybe it was the University of San Francisco, I don't remember.) Anyway he said, "I think so well of him that I predict that he's going to be my successor here someday."

"Bolton, that's good enough for me. I'll take him and when you tell me that you are going to retire," (because Bolton was always a relatively young-looking man and I thought of this as a good bet) "I won't stand in the way." Well, Kinnaird hadn't been up at Davis more than a couple of years when Bolton came and said, "I want him. I'm not retiring, but we need him down here, now." So I lost Kinnaird and then Bolton helped me find Dr. Walton Bean. And the same thing happened again. The war came on, we had to close instruction at Davis temporarily for the U.S. Army's Western Signal Corps School, and Bean didn't come back. Then we put through the same feelers again to find another man -- Professor Vernon J. Puryear is still up there. Anyway, that's how I got history started at Davis. They have a rather substantial department now.

Over the years I developed within the structure of the College of Agriculture a segment of a college of letters and science. Again, you see, holding onto those disciplines in the University that we can't get along without. I've often described my position as something like that of a fisherman who ties a rope around a tree and the
CBH: other end around his waist and edges out into the stream with his pole to get over here where the fish are biting, but holding onto that base as tightly as he can, because he knows that if he once gets loose from that base he'd be lost.

WKB: That base is the University?

CBH: Yes, and that's true in agricultural education. In the story I've been telling you this afternoon, prominent all through everything that I've said is the tenet that the place for a great college of agriculture is on the campus of a great university. One time I said to Mr. Sproul, "You can have a great university without a college of agriculture -- witness Harvard, Yale, Columbia, Johns Hopkins, Stanford, etc. -- but you can't have a great college of agriculture without a great university."

Support from the Agricultural Legislative Committee

CBH: About the same time that the University was revamping and strengthening its work at Davis and elsewhere in response to the demands for these improvements by the agricultural people of California, there was organized by some of the farm leaders of the state, to help the University and especially to persuade the legislature to provide a more adequate basis of support for the College of Agriculture, what was known as the Agricultural Legislative Committee. Some of the leaders in this movement were Mr. C.C. Teague, who later on became a regent and was for a time president of the state chamber of commerce; Mr. A.C. Hardison, who was associated with Mr. Teague; Arthur J. McFadden, president of the California Walnut Growers Association, later president of the state chamber of commerce, president of the state board of agriculture and, as such, an ex-officio regent of the University; and several other men of that caliber representing other phases of California agriculture. They organized this committee for two broad purposes. One was to watch proposed legislation in the legislature, to support what these men thought was good legislation, not alone for
CBH: agriculture, but for the state, and to oppose legislation which they thought was not in the best interests of the state of California. It was one of the early lobbies at Sacramento.

WKB: Who paid for that?

CBH: The members and the farm organizations they represented. It was made up of farmers, right from the beginning, who were interested in cooperative marketing. For example, Mr. Teague had established the "Sunkist" California Fruit Growers Association, which is now known as the Sunkist Association, and he established the Walnut Growers Association, both of which were outstanding successes as agricultural marketing cooperatives. Indeed, I would say he set the pattern for the United States. And other farm cooperatives were in this too, the Prune and Apricot Growers Association, the Wool Growers Association, the Poultry Producers of Central California, and other fruit, livestock and dairy groups. These cooperatives financed this Agricultural Legislative Committee and employed one of our county agents, who was in the Extension Service, Mr. E.N. Wilson, as its executive secretary. Mr. Wilson served in that capacity for a number of years, leaving to become the first director of the agricultural department of the state chamber of commerce. He in turn was succeeded by Ralph Taylor, at one time a member of the faculty of the department of pomology in the College of Agriculture.

WKB: Did they remain in their previous positions while they handled this? They resigned?

CBH: Both of them left the University and devoted their full time, Mr. Wilson for a period of six or eight years, and Mr. Taylor served for some twenty-five years. He just retired a couple of years ago. They were both able men, knew the College of Agriculture well, its faculty and its operations and aspirations. They likewise knew California agriculture and its educational and research needs and over the years they were very helpful to both interests. While the immediate concerns of this group centered in the college, I can recall no incident when these interests were ever advanced at the
expense of any other part or function of the University. They, of course, frequently asked the legislature for increased appropriations for the College of Agriculture, but never suggested that the needed funds might be found through diversion from other University purposes.

The other broad purpose of this Agricultural Legislative Committee was to help build up the two public agencies serving agriculture, 1) the College of Agriculture, and 2) the state department of agriculture at Sacramento. They tried earnestly to help these agencies. Every two years they would come in and meet with the dean and faculty of the College of Agriculture and talk about our programs. We would outline to them the things we were doing, others that we would like to be doing in the way of research, education, extension. They in turn would tell us some of the more pressing problems that California agriculture was faced with at the time. And we would all agree in a general way on what additional funds were needed. For years, John Lawler, general manager of the Poultry Producers of Central California, served as chairman of this review committee.

Then when the legislature was in session they would go to Sacramento and support the University's budget for agriculture, as well as the rest of the University. They did the same thing for the state department of agriculture. And over the years they have been strong advocates of what is good for agriculture, and still are. (Well, they were; I really should speak in the past tense; I am not well-informed what's going on now.) But I think it can be said without fear of contradiction that with the help and support of these men the state has built at Sacramento the greatest department of agriculture in America, and I would like to think that the same is true of the College of Agriculture. I personally know that they were very helpful to us. You can't have strong public agencies without strong public support.

By the way, the name of this group was later changed to the Agricultural Council of California, an organization of agricultural cooperatives. Over the years the California Farm Bureau
CBH: Federation grew up, and it joined with the Agricultural Council of California in supporting good legislation and the two agricultural agencies.

Before closing this section of these rather rambling and, I fear, somewhat disconnected reminiscences, let me record here what some present-day University members may not know, or may have forgotten, that to the best of my knowledge the Agricultural Legislative Committee was the first voluntarily but formally organized group of California citizens formed to encourage and support the University in some segment of its work. The idea has since spread into other parts of the University structure in the form of advisory committees of citizens to the several schools and colleges.

Administration of Dean Thomas Forsythe Hunt, 1912-1923

CBH: Dean Hunt was here at the time all this was happening. He came in 1913. He was brought to the University not only to do a bit of "house-cleaning" but to build the college further. And it was growing rapidly. I suppose in those days it was growing more rapidly than most any other part of the University, and this was due not only to increased federal funds for research but when the Smith-Lever Act establishing the Agricultural Extension Service was passed, more funds came into the University. He very naturally enlarged his staff.

Dean Hunt, I think it's fair to say, was the first man in the United States to set up a formal organization in his own college to administer the three main functions of the college -- resident instruction, research, and extension. He formed a tripartite organization with a director for each of the three functions. He thought of the College of Agriculture as a sort of institution itself. True, it was a part of the University, but it was fairly complete in itself and to some degree autonomous, because of its relation to the U.S. Department of Agriculture, within the University structure.
CBH: That caused him a little difficulty. I mean it was difficult for other people in the University to accept this autonomy, and he had some particular difficulty with the academic senate when he wanted to give academic titles to Extension people. And he did just that at first.

WKB: Why did he want to give academic titles to them?

CBH: Well, he was thinking of Extension work as a part of the University, and part of the instruction work of the college. In fact, the Smith-Lever Act itself refers to this work as "instruction in agriculture and home economics" for those people of the state who cannot come to the University as enrolled students.

WKB: Did he feel they would command more respect, the Extension workers, if they were called "professor," for instance?

CBH: Yes, he thought the people of the state would have more respect for them. It wasn't such a bad idea either, for in many universities the title of "extension professor" is an accepted use. But it went counter to what the rest of the University people regarded as proper use of academic titles.

WKB: I suppose these men didn't have advanced degrees either.

CBH: Only a few. Even today the agricultural extension services of the nation do not require as vigorous academic preparation as I have myself advocated, and as I believe they should. Progress is being made in that direction, however, by some institutions.

There's another factor in all this that I think ought to be mentioned which I'm convinced was a factor in Dean Hunt's situation. Benjamin Ide Wheeler brought Thomas Forst the Hunt to California to clean up a bit of a mess in the College of Agriculture, so far away and so remote from the president's office that the president couldn't handle it himself. He wanted a strong man as the dean of the College of Agriculture, and gave him not only a lot of responsibility but also a lot of authority. When Hunt first came to the University there was no agricultural extension service as such. Professors in the department of agriculture were not employed to render advice and serve as consultants to farmers. They were employed to teach and do research. They often sold their services as
CBH: consultants to farmers, especially during the summers. And some of
them made far more money on the outside in a consulting service or
in practicing veterinary medicine than their meager salaries paid.
Salaries were low, I suppose, throughout the University. They were
certainly low in agriculture, and as a result a lot of people were
spending more time out in the field practicing veterinary medicine
or consulting with the farmers than they were in the classroom and
the research laboratory, and things were, as I said, a bit messy.

So President Wheeler brought Dr. Hunt out from Pennsylvania
-- he was then dean of agriculture at Pennsylvania State College --
and told him to clean these things up. Hunt, with Wheeler's approval,
immediately raised salaries and stopped all consulting work on the
outside for pay.

WKB: So Hunt had to be a strong man because of the situation. That's what
he was expected to be.

CBH: Now, perhaps he went too far, not just in this but in other ways. I
think a lot of people on the faculty -- I've heard them say this, al-
though I didn't see any of it for the two years that I was with him
-- regarded him as a bit of a dictator. And I couldn't, myself, be
a dictator. That's where I would differ with Hunt. I'm a persuader.
I like to promote teamwork, full cooperation, and attain what I want
to attain through persuasion rather than direction. I think that
fits into a University environment much better than the other. But
in those early days, and in the situation then, maybe persuasive
efforts would have failed.

WKB: Did this struggle over separating Davis from the University in 1920
have anything to do with your being appointed the new director at
Davis?

CBH: Well, only indirectly. Of course, a new director had to be found
to administer the new University program there in contrast to the
old University Farm School. I don't know exactly how Dean Hunt
found me. I had visited the University on two occasions, 1915 and
1918, and I knew a few people in the University. I was in the field
of genetics at Cornell, and I and something of my work were known by
Professor Babcock. He was close to Dean Hunt. I know that Dean Hunt
had a little group advising him in his search for director of the
branch of the College of Agriculture. And I had known Professor Edwin Voorhies; I've always had a sneaking notion that Ed played more of a role in the search than he would admit to me. My predecessor at Davis, Mr. Van Norman, who was dean of the old University Farm School, left the University and they had to replace him. By the way, I have forgotten to say that the regents of the University abolished the University Farm School at that time and set up what was called for years the "non-degree curriculum," in the College of Agriculture on the Davis campus. Instruction at the beginning was on the same level as that of the old farm school, although over the years it grew a little better in quality and approached university work. Indeed, before it was abolished some two or three years ago it was practically at the university level, although it was still called "non-degree" work.

WKB: I've heard that when Dean Hunt picked you out for director you were being groomed to succeed him, that he felt he was getting along in years and would soon be retiring, and he wanted to pick out someone who he felt could succeed him as dean of the College of Agriculture.

CBH: He didn't tell me that.

WKB: That wasn't part of your agreement at all?

CBH: Well, I thought of it. [Laughter] So one morning after I had been at Davis oh, about a year, I think, he came into my office and told me that he was retiring from the deanship at the end of that fiscal year. I was shocked, to say the least, because I had hoped that he would stay on -- you see, I was an ambitious youngster -- until I had had time enough to establish myself in the University community to a point where some other people besides myself would recognize my great administrative potential!

WKB: Does that mean that Dean Hunt retired before the compulsory age?

CBH: Yes, he chose to give up the deanship.

WKB: Why?

CBH: He still retained his professorship. I suppose he just got tired of the struggle.

WKB: He wanted to give more time to teaching?
I think it was a little more than that. He had difficulties with the academic senate.

Was it Charles Lipman, dean of the graduate division, who had criticized...

Yes, there were four people — I guess I might as well mention it, two of them are dead — in the College of Agriculture, who did not work with Dean Hunt, or he with them, as well as people ought to work together. I'm not trying to assess the merits of the case, but those were Dr. Lipman, Dr. John Bird, Dr. A.R. Davis, who later became dean of letters and science, and Dr. Roy E. Clausen. Clausen and Davis were younger people. The others were a bit older, but younger than Dr. Hunt.

Now, why did that occur? I think it is fair to say that, aside from some personality factors, these men too were struggling to strengthen the scientific basis of agriculture education and research that I've been talking about, and felt that Dean Hunt was either not doing it rapidly enough or that he was not interested in doing it. I don't know which.

They thought he was too public service minded?

Perhaps, or at least that he wasn't building the College of Agriculture on as firm a scientific basis as was needed; I myself must recognize that in some parts of the college, at least, he hadn't done it.

These men had a good deal of influence in the academic senate, and they joined with others in the University, and Dean Hunt had some, let's say, unpleasantness, at least some difficulties that caused him some concern. And I think he just decided that he would like to spend the rest of his period of activity in teaching. As I recall, the administrative retirement age in those days was sixty-five, and I think he was sixty when he dropped out of the deanship, and he proposed to spend the last five or so years as a professor. He had been a professor of agronomy in two other institutions, and he had been dean at one of them: at Cal and at Penn State he had been dean, professor at Cornell. And he wanted to get back into teaching.

Well, it startled me. I didn't have any inkling that he was going to drop out so quickly, and he did it ahead of my schedule.
KB: I suppose you were not well-established by that time, and perhaps they looked on you with suspicion as being hand-picked by Dean Hunt.

BH: If there was any of the latter, I don't know. It's certainly true that I was not well-established in the University at that time among the faculty. If I do say it, I think I was pretty well established with President Barrows, and even with President Campbell, because he was disturbed when I called upon him to tell him, one day in the summer of 1924, soon after he became president, that I was going to Europe. He urged me to take a leave of absence, because he apparently had heard some good things about how things were going at Davis, and so forth. But I didn't think that would be wise from the University's point of view. Of course, it would have been nice for me personally to have kept a bridge.

KB: Did you attend the academic senate often, or did you get down from Davis?

BH: Yes, as I recall I went to the meetings rather regularly, usually with Dean Hunt.

President David Prescott Barrows

KB: Did you find it easy to work with President Barrows?

BH: Yes. President Barrows was president when I came to the University, but in the subordinate position which I held my contacts with him were not too frequent. I well remember the first time Dean Hunt took me over to meet President Barrows in California Hall. He was very dynamic and rather handsome. He reminded me so much of Dean Waters back in Missouri, who was my ideal; I saw so much resemblance there that I immediately formed a very warm attachment, maybe even an affection for President Barrows, and this was strengthened in later years when I was to know him better.

He was an army man, you know, interested in horses, so he had a special interest in agriculture, and we got along very well. But he left the presidency about a year or fifteen months after I came, and
CBH: William Wallace Campbell succeeded him. Dr. Campbell, I believe, took office the first of July, 1923, and it was either in July or August of the following year that I had an invitation from the Rockefeller group to go to Europe.

WKB: What about considerations of why Barrows resigned? Do you have any opinions on that? I believe he said he wanted to return to teaching.

CBH: That was the publicly announced reason. I can't speak with too great definiteness and I don't think I would want to, even if I could. But Barrows had some difficulties with some of the regents and some difficulties with some of the faculty. And he wasn't sufficiently interested in administration as such, I suspect, to feel that he wanted to continue with the fight.

WKB: Wasn't his power substantially reduced by the academic senate?

CBH: Yes, you see, the academic senate revoluted a bit, and the regents even in those days were still dabbling a bit, at times, in the administration of the University. President Wheeler hadn't quite gotten them out of the habit and there were some difficulties.

WKB: I suppose Barrows, as an army man, was not as tactful as he might have been with his academic...

CBH: That might have been. There was no evidence of it, however, from my point of view. So far as agriculture was concerned -- as I look back on it now -- as I say, it was only about two years experience that I had with him -- he relied very heavily on Dean Hunt, and Dean Hunt ran the show. And that, to an army man, I think would be a rather acceptable chain of command. It worked all right.

WKB: Did you have much contact with Barrows, or were you expected to contact him through Dean Hunt?

CBH: I had little direct contact with him.

WKB: You went through Dean Hunt.

CBH: Of course. Dean Hunt was my immediate superior officer and I would not think of doing otherwise. He was the man that I was responsible to. If I could help him with any problem in the president's office, or if he had something concerning Davis to talk to the president about, or if I wanted to talk to the president, why, he'd take
CBH: me along, of course. We all believed in teamwork, had confidence in and respect for each other. We maintained proper administrative channels and chains of command, although no one tried to chart them. I can't ever remember receiving a "directive" from either the deans or the president's office. Of course, the University was much smaller and less complex in those days. We lived rather simply -- administratively.

Dean E.D. Merrill and Tom Tavernetti

WKB: President Barrows resigned on June 30, 1923, and was succeeded by President William Wallace Campbell. Dean Hunt retired at the same time, and after an interim in which Dr. H.J. Webber served as acting dean, Dr. Merrill became dean of the College of Agriculture. Merrill was not an agricultural man, was he?

CBH: No, he was a botanist, and a good one, one of the world's outstanding taxonomists, but he was not much interested in agriculture. Merrill came in with President Campbell. Campbell was a distinguished astronomer. He lived up there on top of Mt. Hamilton for many years. He wasn't very close to the people of California, but he was selected by the regents as a great scientist, which he was. In my opinion, Campbell's primary contribution to the University was the strengthening of research and scholarship throughout the whole University. As to agriculture, here too he was interested in research and in strengthening our scholarship. He was just the type of a man that I could get along with. Unfortunately, I didn't see much of him during that one year. Davis was a minor, outlying campus and there were other more important matters to occupy the president's attention.

Now, Dr. Merrill was a distinguished botanist, a taxonomist. He had spent about twenty years in the Philippine Islands, and was at that time director of the Philippine Bureau of Science, the chief scientific government organization of the Philippine Islands
during the period of our occupation of the Philippines, and during the period in which we were training the Filipinos for independence themselves. Merrill had been over there in the tropics for twenty years and he wanted to get back to the United States. I've always thought that Professor Setchell, who was professor of botany here on this campus, had more to do than anyone else with the bringing of Merrill in as dean, because he knew him as a botanist, had great respect for him, and properly so. But he didn't know much about agriculture, had had no experience in it, and frankly not a great deal of interest in it.

WKB: That's what I've heard.

CBH: The University's purposes, of course, were good, namely, to structure the College of Agriculture academically. But all great scientists are not necessarily good administrators. So, during the six years that Merrill served as dean of the College of Agriculture, every hour that he could find he spent over in the herbarium. He would do the paper work in the College of Agriculture and get out to meetings and all that sort of thing, but he was never happy in that field, I don't think. His interest and happiness lay over there in the herbarium, and the department of botany, but not too much for agriculture.

Now let's go back for a moment. Fortunately for me, for the College of Agriculture, and for the University itself, I had a very wise young man as my assistant at Davis, Tom Tavernetti. Tom was a graduate of the College of Agriculture, who immediately upon graduation Dean Hunt had picked as a promising young man and sent to Davis as an assistant to the man who preceded me there, whose title was dean of the University Farm School, H.E. Van Norman. When Dean Hunt came as dean in 1913, he brought along Van Norman from Pennsylvania State College and put him in charge of the farm school. But Van Norman was not too well fitted by training and temperament for directing the new program at Davis in 1921, and he finally left. Tom Tavernetti was made active director of the branch until I came.

I well remember many an hour, many an afternoon, when Tom and I
CH: would sit in my office and just talk about what we needed to do to strengthen the work at Davis, especially that of animal husbandry and poultry husbandry, which was particularly weak in that it had little scientific basis in other departments. And let me say right in this connection, these fields needed strengthening not only in the University of California, but throughout the nation. In those days there was very little real science in the animal fields. The plant departments, agronomy, horticulture, etc., had done much better.

All right, when Dr. Merrill was made dean of the College of Agriculture, he asked me whom he should bring into his office as his immediate assistant here at Berkeley. And I said, "As much as I hate to give him up, there is just one man in this whole College of Agriculture that you ought to have, and that's Tom Tavernetti." And Tom Tavernetti was the man he picked as his immediate assistant.

KB: Oh, he was the acting dean.

CH: He was really an acting dean, although his title was assistant to the dean, and it was a splendid opportunity for Tom. And after the two years plus we had together at Davis talking these things over, I would like to think that I had stimulated him to direct his efforts and influence in the college to continue developing the things that we talked about at Davis and were planning to do there. Certainly we were in full accord in our philosophy of education in agriculture.

For these reasons Tom made a very important contribution to the College of Agriculture at a very critical time in its history. There had been criticism of Dean Hunt because he hadn't strengthened the scientific side as well as it ought to have been strengthened, and some other things came into the picture. So when Merrill came in, recognized as I say by everybody as a distinguished scientist, Tom Tavernetti, knowing agriculture and believing in the philosophy that he and I had discussed so many times at Davis, was able to put a lot of these things into operation.

KB: So you're giving Tom Tavernetti a good bit of credit for strengthening the scientific side of agriculture.
CBH: Yes, at that time. And that, of course, helped improve the relationships between the College of Agriculture and the rest of the University in a rather substantial manner.

WKB: What became of him?

CBH: He served for several years as my assistant when I became dean in 1930. He died, unfortunately, a few years later, as a relatively young man. I have never ceased to miss him.

Duties as Director

Building a Staff

WKB: As the new director, your job was to build up Davis into a first-rate agricultural college.

CBH: Yes. The University finally, after accepting the fact that the University farm could not be contiguous to the Berkeley campus, began to develop Davis with still some apprehension, fearing, I think, that it would be difficult to get able, qualified teachers to go out to such an isolated place.

WKB: Was this just the agricultural teachers, or the teachers who would be needed in the other fields as well?

CBH: We were thinking first, of course, of agricultural teachers, but they knew that they had to have good teachers in other subjects too. The whole thing was a question of the quality of the faculty that the University might expect to attract and retain in a somewhat intellectually isolated area with poor laboratory facilities, library facilities, etc.

WKB: What segments of the faculty were apprehensive? Was it the agricultural faculty or the other?

CBH: Both, but perhaps more in the rest of the University. The people in the other parts of the University were, of course, jealous of the University's good name, and its scientific and intellectual standing in the academic world. And they couldn't quite conceive of it being possible for the University to do something in the field of
CBH: agriculture in such an isolated situation of credit to the University. It was recognized, of course, that from the standpoint of public relations in the state it was desirable for the University to have this farm school, but they weren't too much interested in it, and they left it, in broad terms, as a responsibility of the department of agriculture.

WKB: Did the faculty have confidence in the whole discipline of agriculture, as a science, or were they a little suspicious of it?

CBH: Well, they were still a bit doubtful, if not suspicious, because agriculture, generally speaking, hadn't won its place yet in the academic world.

WKB: It was a little too vocational, probably.

CBH: Yes, yes. It was something important -- for we all eat -- not yet to be accepted into full academic fellowship in the University. And that was sometimes reflected in the attitude of the faculties of the various departments in the other parts of the University to those in agriculture.

Now, a part of this apprehension of the faculty in these early days was quite justified because it was difficult to find people of proper educational caliber to undertake this pioneering work. Even I soon discovered when I came in 1922 that some people in the University thought that there must be something radically wrong with anyone who would have anything to do with Davis.

WKB: Had Dean Hunt made it quite clear to you what difficulties you were going to have?

CBH: Oh, I knew, in a general way, yes, because I had heard of some of the difficulties the College of Agriculture was having. But I thought I saw a challenge there. If science could not be brought into agricultural teaching and research in an institution of the standing of the University of California, and if the techniques of science cannot be directed to the problems of such a diverse agriculture as California has, where, pray, could it be done? It seemed to me that the University's Davis campus was an especially promising place to attempt such an undertaking.
WKB: How did you go about doing it. How could you establish the reputation of a place that didn't have much of a reputation really, before you began?

C3H: Well, the first great need, of course, was physical facilities, and the University had determined to do that and had made the decision before I arrived. The old horticulture building and the dairy industry building were in the process of construction on the Davis campus. Every other structure on that campus was a wooden frame building, and the erection of these two buildings was the first physical evidence that the University had given that they now proposed to develop that campus.

Then it was a question merely of bringing together additional members of the staff and, to the best of my ability, attract the right kind of people.

WKB: How did you go about that? Being at Davis, you naturally would have to make an attractive proposition, I imagine. It was far away from the cultural center of the Bay Area.

C3H: Well, mind you, we didn't do this in a year. I'm talking about the accomplishments that took two or three decades; it was slow at first. But I was able to find some able people, not only in agriculture, but in the basic sciences. The initial start had been made during the year of 1921–22, when lower division work in chemistry and mathematics and zoology and botany was inaugurated for the first time at Davis. And the professorships in chemistry and zoology had been filled before I arrived. The first task I had was to find a professor of botany. I was very fortunate in finding Professor Wilfred W. Robbins, who over the years developed at Davis one of the nation's most outstanding departments of botany from the standpoint of botany per se. And at the same time he made botany available for horticulture, viticulture, agronomy, truck crops, and other plant industries, as few botanists have. He made a great contribution to the agriculture of the state through botany.

WKB: How much did Dean Hunt permit you to look for your own faculty and how much did he try to keep the appointments in his own hands?

C3H: Well, he gave me virtually carte blanche. I consulted with him, of
course, and with others, but I can't recall of any recommendation that he declined to approve, with one exception, and that involved the transfer of a field of activity from one department to another, and he preferred to give the first department another chance. But he asked me to find a new man to take charge of the work and approved for appointment the man I selected. So I was given authority as well as responsibility.

WKB: Did you have any duties on other campuses? Did you make suggestions about faculty elsewhere?

C3H: No. During my first two and a half years in the University my responsibilities were exclusively at Davis.

WKB: What could you offer people you were asking to come to Davis? Were the salaries good?

C3H: Yes. The salaries in those days compared to those of other agricultural colleges were very good. I had the allure of California, of course, but the one thing I had to offer that I was convinced would be true was real opportunity and encouragement from a scientific point of view.

WKB: Oh, you brought in scientists who wanted to continue their research under strong support?

C3H: That's right. They didn't want or need direction. Later on when I became director of the Experiment Station I used to say that I was doubtless the poorest director of an agricultural experiment station in America because I never attempted to direct people. I wanted to get all the best people that I could find, and then all I would have to do was to encourage them and find funds and facilities, and "turn 'em loose!"

WKB: Was this not done in other agricultural institutions, or done to a lesser extent?

C3H: Of course, but we emphasized it here. In those early days in agriculture research generally speaking there was much direction. Well, I have to admit that in many instances some people they were using in it needed direction, but that was not the way I wanted to go about it.

WKB: You wanted to get people who could go on their own.
CBH: Yes.
WKB: Did the University of California offer more research facilities and less of a teaching load than other institutions?
CBH: No, I don't think I could say that because, goodness, when I was at Cornell I had a very light teaching load. And we had some people in my own department who did no teaching at all, save direct the work of a few graduate students. No, I don't think so.

Developing the Department of Animal Husbandry

CBH: The main thing I think I accomplished, not only at Davis but later for the whole college, in those two and a half years, was to emphasize the importance of the role of the physical, biological, and social sciences in agriculture teaching and research. For example, it had been recognized throughout the nation that botany, sciences, genetics, plant pathology, plant physiology, and the like had much to contribute to agronomy, horticulture, viticulture, and vegetable crops. That was not true at that time of zoology. That relationship did not exist then between the animal sciences, animal husbandry, poultry husbandry, dairy husbandry, with zoology. Zoology had found its outlets and its applications more through medicine than it had through agriculture.

And yet I was convinced that the zoological sciences were just as necessary and had just as much to contribute to animal husbandry and the animal sciences as the botanical sciences had to offer to the agricultural plant sciences. And that was the text of my sermon for the two and a half years that I was at Davis.

All right. Now at Davis, at that time, the animal husbandry work consisted largely of the promotion of the purebred livestock business, particularly cattle breeding, the showing of animals at fairs and expositions, and a few feeding trials, trial and error attempts to determine the best kinds of feeds to use in the fattening of livestock, and so forth, and that was about all. There was little real scientific work being done. So Tom Tavernetti and
and I talked a lot about how we could find someone with an emotional interest in animal husbandry but equipped with good, sound, scientific training and with a knowledge of the various zoological sciences that could be made useful in the field of animal husbandry, just as had been done on the plant side. We finally hit upon the notion that maybe we would have to explore the field of veterinary medicine to find someone that was interested in farm animals—growing animals, better animals, healthy animals, as well as the diseases of animals. I remember well one afternoon we both agreed that Dr. George H. Hart, who was then professor of veterinary medicine here at Berkeley in our veterinary science division of the Agricultural Experiment Station—there was no instruction in veterinary medicine in those days—that he was the type of man, at least, that might well be put in charge of animal husbandry at Davis. About that time I went to Europe.

Well, Tom came down to Berkeley as Dean Merrill's assistant. He soon began to tell Merrill of our ideas and convinced him that this would be a very good thing to do. Mr. Merrill was rather impetuous at times and made decisions quickly. If he decided this is what ought to be done today, tomorrow was the day he put it into effect. So he sent Dr. Hart to Davis. The man in charge of animal husbandry there, Professor Gordon True, whose great interest had been in showing livestock at fairs and expositions, had done very well with that. He had bred and fed and developed steers and taken them back to the international livestock show at Chicago and they had won prizes and attracted a lot of attention among the livestock breeders and the stock men of California. That sort of thing, though, didn't do the livestock men a bit of good, save promote their pride. That didn't help the livestock industry in any substantial way.

Well, Dr. Hart just changed that whole picture in a relatively short time. Not only did he change it in California, but he set up a pattern of education and research in animal husbandry that has been emulated generally throughout the United States. And here
CBH: is one field in which the University of California has made a very great contribution to agricultural education in America.

WKB: In animal husbandry?

CBH: Yes, by the use of the basic biological sciences. So Dr. Hart immediately began to strengthen the staff of the department of animal husbandry by bringing in animal physiologists, animal geneticists, animal nutritionists, and the like, and started work along those lines, working with the several animal specialists, men in cattle, both beef and dairy, in sheep and swine, and they have contributed much to the promotion and the welfare of the livestock industry in California.

Professor Regan and the Department of Dairy Husbandry

CBH: This is an interesting story. I brought Professor Regan out from Rutgers University, New Jersey. The department of dairy husbandry had charge of the dairy production work, while the processing of dairy products was the function of the department of dairy industry. Dairy industry's field is to take milk and process it into cheese, butter, ice cream, and all the various other dairy products. The breeding, feeding, management and the improvement of dairy cattle were functions of the department of dairy husbandry.

I had been a student of Professor C.H. Eckles at the University of Missouri in my undergraduate days. He had left Missouri a little later than I did, to go to Minnesota. Professor Eckles in his time was generally regarded as the leading teacher in dairy husbandry work in America. He trained more people, and more of his students have come to occupy important posts in that industry than I suppose of any other man.

Talk about vision! I was imaginative in those days! And when I found upon arrival at Davis this post of dairy production vacant in animal husbandry I went to Dean Hunt and said, "What would you think of combining dairy husbandry and dairy industry into a department of dairying?" That's the way it had operated at Missouri, for
example, or Minnesota. And I had seen what Eckles had done in it. And I even proposed that we see if we could attract Professor Eckles away from the University of Minnesota to come out here to do this job. I'm not so sure but what I could have gotten him to.

Well, I said a moment ago that I couldn't think of a recommendation that Dean Hunt had disapproved; here's one he did. Professor True and Dean Hunt were good friends as well as colleagues and both of them were considerably more mature men than I was. I was "still a youngster" as Dean Waters had said, "and had a lot to learn." I think I had the confidence of both of them, but still Professor True wanted another trial at dairy production. He realized that the man he had had in charge of this field at that time hadn't been very successful, but he thought he could find someone else that would, and he disliked, I suppose, to see a portion of animal husbandry taken away from the department and put over in another department. So he prevailed upon Dean Hunt to keep dairy production in animal husbandry, and then we had to fill that position.

That brings to mind an interesting question that I have to stop and ask myself. Normally, you would expect that the head of the department would make the search and recommendation for filling that position, but I did it myself, and how I persuaded Professor True to go along I don't remember. Maybe he asked me to do it. And maybe Dean Hunt wanted to see what "the youngster" could do.

Anyway, we worked it out some way and Professor Regan was invited to come. Regan and I were undergraduates at the same time at the University of Missouri, so I knew him personally. And when I wrote to Eckles to suggest someone to me, he recommended Professor Regan. Knowing both Eckles and Regan as I did it sounded to me like a good suggestion, and I began to negotiate with Regan. He finally said, "Yes, I'll come to California if you will permit me to bring my herd of dairy cattle with me."

So then I had the task of persuading Dean Hunt to provide thirty thousand dollars or so to buy a herd of dairy cattle from
the New Jersey Agricultural Experiment Station. The reason that
Regan wanted to bring his herd was that he had started at Rutgers
a long-time experiment in in-breeding in cattle and he didn't want
to have to start it all over again. He had a herd of Jersey cat-
tle and a herd of Holstein cattle. He was willing to leave the
Holsteins in New Jersey, but he wanted to bring those Jerseys with
him.

Well, I'm sure Dean Hunt thought, "Well, maybe I'd better con-
tinue to encourage this young fellow Hutchison. This may be a cra-
yz idea, but I'll take a bet on him." And he provided the funds to
buy Regan's cows. So Regan came, bringing his breeding herd entirely
across the continent.

About how many animals were there?

Well, I'd say fifteen or twenty, though I don't quite remember.

That brought into California not only a good scientist but it
brought some very good Jersey cattle. Over the years the bulls
that were produced in this herd were loaned to dairy breeders over
the state with the understanding that those dairy breeders would
keep a record of the milk production of the daughters from those
bulls. So we tested the transmission of high-dairy production
through those bulls to their daughters, and that experiment is
still running, one of the first attempts in the United States of
the now widespread "proven sire" practice. It has contributed
greatly to the advancement of dairy animal breeding and to the im-
provement of the Jersey breed in California.

I also found at Davis an opportunity to strengthen not only our
work in animal husbandry but also in poultry husbandry. I brought
Professor William Lippincott from Kansas State College to Davis
and made him head of the division of poultry husbandry. At that
time Lippincott was probably the leading poultry scientist in the
country, a geneticist. That was an accomplishment of far-reaching
CBH: significance of my two and a half years at Davis.

WKB: How were you able to obtain his services?

CBH: By convincing him that he had a better opportunity at the University of California than he had at Kansas State College.

WKB: Was this better facilities or better salary?

CBH: Well, I suppose both, although our facilities at that time were not too good. I imagine there was some increase in salary, but I think what brought him here was the reputation of the University, the standing of California's poultry industry in the nation, and the opportunity for sound research.

WKB: I was just wondering what factors cause a leader like that to move from one school to another, what he's looking for.

CBH: Well, he's looking for, generally speaking, a stronger and better-developed university. He was in Kansas State College which in those days was not an important educational and research center. Furthermore, Kansas was not an important poultry-producing area.

WKB: So it was partly a prestige factor.

CBH: Yes, prestige counts a lot in attracting people from the smaller and less well-known institutions. But I think it is even more basic than that. It is what I like to call the scientific and scholarly atmosphere of the place. If the library facilities at Davis were not too good, we had the great University Library here. If the physical facilities were not too good, we had every reason to believe they could and would be improved. The general scientific and intellectual reputation of the University was certainly a factor in Lippincott's decision. And he had confidence in me as an administrative officer, and that again is always a factor in building a staff.

WKB: They want to know they can work with the people in charge.

CBH: That's right. They want to know and they want to feel that they are going to have the support of the administrative officer. That was one of the handicaps that the Davis campus had prior to that time because the man in charge didn't enjoy the confidence of the staff.

WKB: When you say "support" do you mean support in getting research facilities?
CBK: Yes, support in every way, encouragement, and then support by doing everything possible to get better facilities, library, laboratory and other facilities which a man needs in his work. The man who goes into university work is most interested in the opportunity, the freedom that he has to do what he wants to do, and the encouragement that he wants to feel that he can have from his administrative superiors.

Soon after Lippincott arrived I decided to leave Davis and go to Europe with the Rockefeller group and I think that disturbed Lippincott a bit more than it should because I had been the one responsible for bringing him here. So he made up his mind that he wanted to come to Berkeley and asked that the headquarters of the department be transferred here. This was prior to the University's decision to transfer Dr. Hart to Davis. Had Lippincott stayed on at Davis until Hart got there I think his feelings might have been tempered and he would have been happy to stay there. But he persuaded Dean Merrill and the University people to permit him to come to Berkeley. Then he ran into all sorts of difficulties. The University bought about thirty-five acres of land here, vacant land in those days, just west of Sacramento Street between Cedar and Rose Streets in West Berkeley and announced its intention to develop a poultry experimental plant there. Well, the neighbors got excited! They didn't want a chicken farm right at their back doors, in the city. They raised so much fuss that the president and the regents were persuaded that that was not a good thing to do.

So they then turned to the Strawberry Canyon and built the poultry plant on the side of the hill there on a series of terraces. In those times this was a rather expensive development, relatively speaking, all of which could have been avoided had the poultry department remained at Davis where it should have been, and it would have avoided the bone of contention which raged for many years among the coastal versus valley poultry producers of the state over the location of the department.

Well, the unfortunate thing in all this was that Professor Lippincott's health failed a few years after he came, a factor in the situation which no one could have anticipated. Certainly I knew
nothing about it and I don't think he had any idea that this would happen. This was very unfortunate and I mention it only to indicate that it was a handicap in the step we took in the two and a half years I was at Davis toward strengthening poultry science by bringing in a man of high standing, well regarded in the field of animal genetics, and who was making use of that science in the improvement of poultry husbandry.

When Lippincott's health failed there was another young man in the department that he had brought to the University himself, whose name escapes me at the moment, who was made chairman of the department. He was a Scandinavian, quite well trained and an able man, but he had difficulty in his personal relations with his colleagues and the public. This caused us some concern. Finally this poor chap died and Providence solved that problem for me. I was back in the University by that time, in fact I had become dean. And then we turned to Professor Lewis W. Taylor, a geneticist, and made him chairman of the department. We had brought in another man at Davis, in the time between. So we operated two poultry husbandry centers, one at Berkeley and one at Davis.

Then a few years ago Professor Taylor came to me one day and said that his physician had advised him to slow down and that one of the things that he would like me to do was to relieve him of the chairmanship of the department. I brought Dr. George F. Stewart from Iowa State College and made him chairman of the department. Without saying anything to anybody I told him headquarters were to be at Davis, and I changed the headquarters of the department from Berkeley back to Davis where it should, in my opinion, have been all the time. Things have moved on nicely.

In the meantime the facilities have been strengthened greatly at Davis and that is now the primary center for poultry husbandry. A small section has remained here. It is now in charge of Professor Michael I. Lerner and has largely become an adjunct to the department of genetics, as such. He still uses poultry as his material in which to study theoretical genetic matters. Thus has poultry husbandry in the University of California evolved and evolved over the years.
The Department of Agricultural Engineering

CBH: Another milestone, I think, in the development of the college, was set firmly along the path of time after I had gone to Europe when they brought Professor Harry B. Walker out, again from Kansas State College, and put him in charge of the agricultural engineering department at Davis. Prior to that, and during my time at Davis, Professor Leonard J. Fletcher was in charge. I tried to encourage him also to bring in science and to do more basic research work in the field of agricultural engineering, but my efforts were not fruitful. But when Fletcher left the University to join the Caterpillar Company and they brought Professor Walker in, a great step forward was made, and over the years Professor Walker built without doubt the greatest department of agricultural engineering here in America, at Davis.

WKB: You've mentioned two men who came from Kansas State College. Was that an especially good training college, or was it just chance?

CBH: Circumstance. Professor Walker had his professional university educational experience at Iowa State College. He was a general engineer, not an agricultural engineer, but since Iowa State was predominantly an agricultural institution -- likewise Kansas State, both of them land grant colleges -- there was an agricultural atmosphere there, let's say, and he became interested in its engineering problems. But he was a well-trained engineer and a very wise man. He saw here in California a great opportunity to use engineering skills and techniques in agriculture and, in my opinion, and I'm sure other people would share that, to build here a department of agricultural engineering of real stature and quality. So well did he do this that a few years ago when Cornell was searching for a man to revamp and rehabilitate their agricultural engineering they set as their first requirement a "Walker man."

Under Professor Walker's able leadership the department was firmly built. It has continued to grow under Professor Roy Bainer's direction. It has recently become the nucleus of the University's third College of Engineering. Thus do mighty oaks from small acorns grow -- if properly guided and nourished.
CBH: During the years I was abroad [1924-1928] the developments in animal husbandry, poultry husbandry and agricultural engineering, which I have described, together with similar strengthening in the other departments, though perhaps less spectacular because those departments were already better, attracted much favorable public attention. The University had responded well to the public demand that it do better by agriculture, particularly at Davis. Funds were appropriated for a new and permanent animal science building, a new engineering building, and for the purchase of the Armstrong Tract, the first of several additions which over the years have been added to the original 770-odd acres purchased in 1905 to establish the University farm.

WKB: I was looking through an old 1922 catalogue, and there was a long list of agricultural professors, I think a much larger list than other departments had.

CBH: Yes, because we had the Agricultural Experiment Station and the Agricultural Extension Service, with the two outlying campuses, Davis and Riverside. In fact, up until World War II the College of Agriculture represented, in terms of staff and dollars and cents, about twenty to twenty-five per cent of the total University development. That's, of course, no longer true because in recent years the University has expanded so rapidly and so extensively in other fields in response to population growth and to urbanization.

WKB: Did agriculture get an especially heavy appropriation out of the University budget?

CBH: Well, we got a generous one. And I told you the other day about the Agricultural Legislative Committee and the support that we got from the farmers of the state who aided us in getting appropriations through the legislature, not only for agriculture, but for the whole University. In those days, you must remember, the College of Agriculture was the part of the University that was closest to the people of the state. Agriculture was the dominant industry, you see, in the state, and therefore carried a good deal of weight in Sacramento.
WKB: Did you assist the whole University's budget by going up to Sacramento ever when they were working on a...

CBH: Whenever I could be of help I always responded. I never went on my own. I always responded to invitation either from committees of the legislature or from the University's representative.

WKB: Was this a major part of your work, to support the University in this way, or to win popular support in other ways?

CBH: Not a major part, but I knew how important the University of California's total work was to that part of it in my hands. I still believe this to be true. I was eager to do anything I could to aid any other part, or all, of the University as well as my own. And if I could be of help to anyone, the president, the regents, or their legislative representative, I was only too happy to do it.

WKB: Well, I should think your position would carry with it a lot of public relations responsibility just because of the favorable position agriculture was in at that time.

CBH: Yes, that could well be. And I think we, the people of agriculture, recognized our responsibility for the whole University in the field of public relations. As I have often said, we had our feet on the ground. We were close to men of affairs. We were in a position to help create public understanding of the University and some of the other things the University had to do. I like to think that over the years the College of Agriculture has been able to help the rest of the University not only in attaining public funds but in other ways as well. Above all, I like to think we have merited their acceptance into full academic fellowship in the University; this has finally come to us.
EUROPE WITH THE ROCKEFELLER FOUNDATION, 1924-1928

WKB: Now, why did you leave? Why didn't you want to keep on as director at Davis?

CBH: That's an interesting question. I had a personal problem that was troublesome and which influenced my decision to some extent, but I think it was more the challenge of broader fields. An invitation came to me in the summer of 1924 from my superior officer and friend at Cornell, A.R. Mann, whose picture is up there on the wall. He was dean of the New York State College of Agriculture at Cornell University while I was on the staff there and we formed a mutual friendship, even in those days. When I went over to his office to tell him, early one day in the year of 1922, that the University of California was inviting me to come to California, I well remember him saying to me, "Well, that probably is an exciting thing for you to do, but we don't want you to leave Cornell. And I want to say to you right now that Cornell will do everything in its power to keep you here."

So I left that kind of an environment and support to come to California. Then after two and a half years Dr. Mann was invited by the Rockefeller group to go to Europe to explore the possibility of the group getting back into agriculture. He wrote to me and said, "Come to Europe with me." He told me what he was going to do. He was committed for two years. He said, "I want somebody to go with me, someone who will be willing to think seriously about staying longer, because I can't get away from Cornell for more than two years."

WKB: Someone to succeed him.

CBH: Yes, and he painted quite a picture! In the meantime, one of their staff members had visited me in Davis and told me something of what the Rockefeller people were thinking about in the field of agriculture, and it was rather alluring. So I decided to go.

WKB: And what was the Rockefeller group planning to do?

CBH: Let's go back to John D. Rockefeller, Sr.'s time when, after making
CBH: a huge fortune in the petroleum field, he began to browse around and think about how that huge fortune might be directed toward human welfare. In those days, in our own country, the Deep South was regarded as something of an economic problem. Indeed, President Franklin Roosevelt later called the South the nation's number one economic problem. And Mr. Rockefeller was interested in the South and he was interested in education and he wondered if through better education the South's economic situation could be improved. He sent Dr. Wallace Buttrick, who I think was pastor of the New York Baptist Church, of which Mr. Rockefeller was a member, to the South to study and explore, with private funds, the possibility of stimulating education in that area. Well, Dr. Buttrick soon found it wasn't a lack of interest in education on the part of the southern people. He came to the conclusion that it was an economic problem.

The economy of the South in those days was very largely based on agriculture. And he found working in the rural areas of the South Dr. Seaman A. Knapp, who had been sent there by the United States Department of Agriculture — I think James Wilson was secretary of agriculture at the time — and who was operating what were called demonstration farms. Dr. Knapp would make arrangements with some farmer in a particular neighborhood to run a part of his farm as Dr. Knapp advised, guaranteeing him against any loss which might result from his use of these new-fangled farming methods.

Dr. Buttrick thought, and so recommended to Mr. Rockefeller, that some money might well be spent to support Dr. Knapp's work. (The Department of Agriculture was putting a little money into it but Congress wasn't much interested in those things in those days.) It was Dr. Buttrick's thought that if through Dr. Knapp's work in the improvement of agriculture the southern people could improve their total economy, they'd have more money to spend on education. For a year Mr. Rockefeller was putting more money into that farm demonstration work in the South than the federal government was putting in.

That was not only the first project of Mr. Rockefeller's group
in the field of education — which ultimately developed into the General Education Board which Mr. Rockefeller established and endowed later — but of greater significance, this farm demonstration work of Dr. Knapp's in the South was the forerunner of what we now call the agriculture extension service in America, which has done so much to teach farmers how to use science in their work and made them the most efficient in the world.

Then a very peculiar thing happened when, in 1914, the Congress was considering the establishment of the agriculture extension services in all of the land grant colleges and not any provision was being made for the appropriation of public funds. In the debate in Congress, Mr. Rockefeller's contribution was not only depreciated, but some rather unfortunate things were said in the debate against this "tainted" money, which Mr. Rockefeller had amassed through what some people thought were maybe unscrupulous business procedures.

So the Rockefeller group said, "All right, if there's no place for us to help the southern people in this agricultural field, we will just give it up and go into some other activities." So they chose the medical field, establishing the International Health Board, among other things, which I think it is fair to say was the beginning of the foundation's reputation in the field of medicine both at home and abroad.

Both Wallace Buttrick and Mr. Rockefeller, Sr., were still living at the time I went to Europe. They had never lost their interest in agriculture. And in the meantime, the man who had built the International Health Board, Wycliffe Rose, was interested in agriculture, too. After their experience with the International Health Board in foreign countries, they wanted to extend abroad activities similar to those that the General Education Board was conducting in the field of general science and agriculture in America.

The General Education Board was operating under a federal charter and instead of going to Congress to get that charter
changed, they set up another board called the International Education Board and John D., Jr., endowed it with twenty million dollars. That board took upon itself the responsibility of attempting to strengthen general science abroad. And the board picked up agriculture again, and they asked Dean Mann of Cornell to go abroad for two years and explore, particularly in Europe, the field of agricultural science to see if there was something that might be done in that area that would be an important contribution to the welfare of Europe and its people. They asked Augustus Trowbridge, who was then dean of the graduate school at Princeton, to go abroad at the same time to make similar explorations in the field of general science.

So Mann asked me to go with him. We didn't know how long this would last, but it was a rather intriguing opportunity to me. In the first place, I hadn't been to Europe. The opportunities for foreign travel and study were not so numerous as today. Scientists didn't travel around as much as they do nowadays, so a European trip was something not to be minimized. So I accepted Dr. Mann's proposal, got on the train and went to New York to be interviewed by Dr. Rose, and decided to go to Europe. And that was what took me there.

Now, my chief interest in our work in Europe was again to see how we could strengthen, not only in this country but also abroad, the scientific basis for agriculture, which has always been my prime purpose in life. Now, what did we do in Europe? Well, we visited in every country in Western Europe, the continent, and the British Isles, every educational and research institution dealing with agriculture, veterinary medicine, and forestry; every country, save Albania, from Greece north through Poland, the little Baltic states, Lithuania, Estonia, and Latvia; Finland and the Scandinavian countries; all of Europe save Russia.

WKB: And you were welcome?

CBH: Yes. Now, as Dr. Rose said, we had to have some excuse for going around here and there and asking all sorts of questions. And the
CBH: The excuse he invented was a fellowship program, an international fellowship program. We would go into a country and say to the ministry of education and, as soon as we learned who they were, to the leading professors in these fields that I spoke of, "We are prepared to provide a fellowship for a few of your outstanding and most promising young scientists who have gone as far as they can up the educational ladder in your own country, but who would benefit from going abroad to study for a time under the guidance of a master teacher, and then return to his homeland, the better prepared to continue a scientific and educational career in one of your own institutions."

Then we would ask these youngsters to tell us not only what they wanted to study, and not only the institutions that they wanted to attend, but the professors under whom they wanted to work, and to get for us their acceptance by the professor in whatever university they wanted to study in. So it wasn't the university they were going to; they were going to study with professors of whom they had already heard and knew something about the professor's work, you see, and with their own interest paralleling that, they would, naturally, want to go to study with this professor. And we'd send them to France or Germany or England, the Scandinavian countries, any place they wanted to go. In my field of agriculture we sent the bulk of them to the United States.

Now it happened in those days in such fields as entomology, plant pathology, genetics, and to some degree even in soil science, America was leading the world, and these youngsters knew about it, so they would say, "We want to go to America." And I always had to try to figure out with them whether it was America which was attracting their attention because it was so far away, or whether it was Professor Jones at some university, let's say, that they knew about and with whom they wanted to study.

WKB: In other words, were they just on an adventure, or were they on a serious study trip.

CBH: Yes, that was always the question.
The interesting thing to me is and always has been that in those days there were four universities in America -- oh, there were a few others, but there were four primary institutions -- where most of these youngsters wanted to work. And those, to begin in the East Coast, were Cornell, Wisconsin, Minnesota, and California. Oh, here and there would be a young fellow who wanted to go to Iowa State, Michigan State, Missouri, or even to Harvard, but not very many went to Harvard because Harvard was not regarded as an agricultural institution. They had important work in entomology and genetics to be sure, but not much in the other agricultural sciences.

Why those four, though? Because there were professors at those four institutions that had international reputations.

Including the University of California.

Oh, yes. Once in a while we would discover that some applicant hadn't made the wisest choice, and we would advise with them about other places. Of course, we had the final say because we recommended to the board in New York that the fellowship be granted, or that it not be granted. So it was our responsibility to sort these youngsters out, screen them with the help of local men in various countries who knew them, and to forward their applications with our recommendations to New York.

Take the little country of Bulgaria, for example. Most of our fellows came from the more scientifically-advanced countries of Central, Northern, and Western Europe, but I remember we granted fellowships over the period of time I was there to some ten or twelve people, and by so doing helped train an agricultural faculty for the University of Sofia.

Now, let's go back a little bit. Dr. Rose had made a trip around Europe before they decided to establish this program in Europe, and had visited Bulgaria where he met Professor Molov at the University of Sofia, who was at that time the minister of agriculture for Bulgaria as well, and he learned that the University of Sofia was attempting to establish a faculty of agriculture. In
many universities in Europe, particularly on the continent and in
the eastern countries, their faculties of agriculture are separate
from their universities. They have a dual system there, too, of
independent agricultural institutions and university colleges of
agriculture, similar in structure to our independent land grant col-
leges.

Well, Bulgaria, although an agricultural country, had always
depended upon other European countries to train agricultural teach-
ers for its lower schools, and experts for its experiment stations
and other government activities. Following World War I they de-
cided to build a faculty of agriculture of their own, and they used
the pattern of a university faculty in the only university in the
nation, that of Sofia, and that had attracted Dr. Rose's attention.
So one of the first countries that I visited was Bulgaria. One
time later when I was in Sofia the minister told me that they were
finding difficulty in the development of their faculty. In the
first place they had no buildings, so the government had commandeer-
ed a theological seminary. They took this building away from the
church and set that up as their university agricultural building.
The church vigorously opposed it, and ultimately the government
and the university were forced by public opinion to return it to
the church. So they started to build their own building to house
the faculty of agriculture.

At that time Bulgaria was paying heavy war reparations from
World War I, and she could pay those reparations only if she could
sell abroad some wheat and tobacco. At the time of this visit to
Sofia, the minister told me that the government had stopped construc-
tion on every public building in the whole nation save this building,
so important they believed it to be. He said, "Do you suppose your
board would be interested in helping us complete that building?"

And I said to him, "I don't know, Mr. Molov, but I'd certain-
ly be glad to communicate your request to New York." And the board
made an appropriation of around $135,000 to help the University of
Sofia complete that building.
Now, the ironic part of this story is that a member of my own staff in the College of Agriculture of the University of California — Professor Percy M. Barr in forestry — who was a member of the 11th Air Force stationed at Berra, Italy, during World War II, destroyed the building which I had helped Bulgaria build, because the Germans had come in and had taken it over, using it for military purposes.

Now, let's see, was it 1939 that Bulgaria awarded you an honorary doctorate for your work there?

Yes, they wanted to show their appreciation. They couldn't very well decorate or give an honorary degree to a foundation, so they gave it to me.

During the course of those four years we did some other things. You see, that was right after World War I and European finances in many countries were meager. We developed not a very large but a bit of a rehabilitation program where we would make modest contributions to universities to strengthen their facilities and equipment, furnish them some more modern and urgently-needed laboratory equipment. Certainly in their libraries they were short of current literature, particularly journals, and particularly American journals. We provided in a few cases subscriptions to journals so scientists could have access to modern up-to-date literature.

I well remember visiting one institution in Austria where because of the shortage of funds they had to close up most of the laboratories because they couldn't afford to heat them in the wintertime. When I would talk to those professors about their greatest need, they would say, "literature," when it looked to me like they needed about ten tons of coal more than anything else. Yet they felt isolated; they didn't know what was going on in the scientific world and particularly in America, because they didn't have enough income to subscribe to these journals.

Was your delegation working only in the agricultural field?

Well, I worked in the fields of agriculture, forestry, and veterinary medicine, but Dr. Trowbridge was doing the same thing in the
general sciences. I was in the sciences too, especially the physical and biological sciences that had some bearing or were basic to these broad fields of agriculture, forestry, and veterinary medicine. I remember that we equipped an x-ray laboratory for the veterinary college in Vienna which was established by Maria Theresa in the latter part of the 18th century.

Then we developed one or two rather good-sized projects. The largest one, perhaps the most important one that I had to deal with, was a substantial development at Cambridge University for strengthening the biological sciences in general, including animal nutrition and animal physiology, entomology, biochemistry, and some other things. The total spread over into agriculture on the one hand, and into the basic physical sciences, on the other. They were concerned in one part of this program with what we were beginning to call, in America, bio-physics, but which the conservative people of Cambridge weren't ready to use. They preferred to call it colloidal physics. But it was among the early developments in bringing biology and physics together. Well, that was a substantial program, involving as I recall, a contribution of something like three and a half or four million dollars from the Rockefeller group to Cambridge University.

The foundation in those days, in my days with them, and with Dr. Rose, was always interested in planting what he called "germinal ideas." He would find some professor, let's say, working on something new, and he would like to make that man a grant, to give him more assistance, or to help him buy some new equipment, or to strengthen his library facilities, or do something to help him develop that idea in science with the hope that it would thrive and grow.

D3: Did you set up demonstration farms?

E3: No.

Dr. Rose did introduce 4-H club work into Denmark, and he got a man from the United States Department of Agriculture to go to Denmark and take charge. Neither Dr. Mann nor I had anything to do with that particular project, however; it was run directly from New
York. This, by the way, was the first 4-H club undertaking outside the United States, I believe.

Where were your headquarters while you were there?

The first year our headquarters were at the old International Institute of Agriculture at Rome which, by the way, a Californian established, or helped establish, Davis Lubin, a merchant in Sacramento. Dean Hunt was at one time an American delegate to that institute. The man who was there as the American delegate when we were there in 1924, 1925, was Asher Hobson, who later became a professor of agricultural economics at Wisconsin. We made that our headquarters, but we were traveling most of the time during the first year. Then we moved into Paris and set up headquarters with the Rockefeller Foundation that had already located its European offices in Paris. I lived in Paris for three years.

About how many men were there in your group?

At that time there were only Dean Mann and myself, and when he came back after two years I was the lone wolf.

You didn't have any assistants, American assistants?

Not regularly, but we brought over a few people for more intensive explorations in specific fields of science.

I suppose you had clerical assistants.

Oh, clerical help, yes, and the comptroller. They handled the business side of things, and that sort of thing. But we were running the main show. Dr. Trowbridge had an assistant, a young man named Tisdale.

Then in the winter of 1927-28 the Rockefeller Foundation was reorganized and the International Education Board was abolished. The remnants of its money, its endowment, was transferred to the foundation, and the International Education Board went out of existence. The division of science of the Rockefeller Foundation was established in its place. In the same manner the Laura Spelman Rockefeller Memorial, a memorial to Mr. Rockefeller, Sr.'s, wife, operating in the field of social sciences, was abolished, and its endowment and its program taken over by the foundation and
made into the division of social sciences of the foundation.

The Rockefeller Foundation, when it was reorganized, had a
division of medical science, a division of general science, and a
division of social science. What's going on now, I don't know.
The two boards which I have spoken about were abolished. But they
kept the General Education Board and so far as I know it still ex-
ists.

How did you enjoy your time spent there in Europe?

Oh, very much. It was a remarkable experience for me. I didn't
know in those days that I would ever be dean of a college of ag-
riculture, but if it had been known and I had deliberately planned
preparation for such a responsibility, I couldn't have had better
experience. I had entree to, and knew individually, many men con-
ected with the leading agricultural and research centers of Europe
and the United States.

I noticed that you returned to Davis in 1926 for a brief stay.

Yes, I was abroad four years and I came back at least once a year.
And whenever I returned to New York Dr. Rose would suggest that I
take a swing around the country. I would always visit the four
leading agricultural institutions, Cornell, Wisconsin, Minnesota,
and California -- sometimes others.

To see what was going on here with the young men you sent over?

Yes, and to see what new developments were taking place. This
knowledge was necessary if I were to help our fellows wisely in
choosing their place of study. So I kept in touch with what was
going on in America as well as Europe during those four years.

That certainly sounds like a very valuable experience. Before we
get into the Giannini Foundation, I had heard that you were offered
a position with the University of Arizona while you were still over
in Paris?

How did you discover that?

Oh, I do some snooping around. [Laughter]

Well, let's make this record truthful. [More laughter] It didn't
go that far, but I was asked by the chairman of the board of regent
if I would be interested in being considered for the presidency of
the University of Arizona. But it didn't appeal to me because Arizona was a small state, populationwise, a large state, geographically, and a small state, economically speaking. I knew some people in the agricultural part of the university and I rather guessed that their s represented the quality of scholarship throughout the university. And then I asked myself one question: "Would you accept a professorship there?" And I had my answer, because an administrator's success is largely dependent upon the quality of staff that he is able to attract and retain. I thanked my friend for his confidence, but told him there would be no point in carrying this correspondence further. I was then in Paris.
DIRECTOR OF THE GIANNINI FOUNDATION, 1928-1931

Establishment of Giannini Foundation

WKB: Could you explain the circumstances of your return to the University of California and why you decided to take over the direction of a foundation for the study of agricultural economics?

CBH: Yes. Well, let's go back first to the beginnings of the Giannini Foundation of Agricultural Economics. In February of 1928 the regents accepted a gift of one and a half million dollars from the board of directors of the Bancitaly Corporation. The Bancitaly Corporation was the forerunner of Transamerica Corporation. Sometime during the year of 1927 Mr. A.P. Giannini's share of the profits was declared, a million and a half dollars. Mr. Giannini had always maintained that he would never become a wealthy man. He built what has become the largest bank in the world, but he never amassed a large personal fortune. When he discovered that his profits were a million and a half, he didn't want it. So he and his colleagues in that corporation began to think about how to use that money.

Mr. Giannini had always been interested in agriculture. He made his first money in the produce business. He came to this country as a child and grew up on a Santa Clara County truck farm. He got into the produce business in his early years in San Francisco and accumulated, I think the story goes, about $100,000. He thought that was enough money for anyone so he retired from the produce business. But being a young and vigorous man, he simply couldn't be idle. Realizing that agricultural credit, credit for farmers, was not on a very satisfactory basis, he started in the banking business to loan money to farmers and to other people, small businesses, let's say, small entrepreneurs, whose collateral was primarily thrift, integrity, and hard work, and that was the beginning of what is now the Bank of America, first called the Bank of Italy. He was operating this during the earthquake and fire in San Francisco in 1906, and the story goes that he gathered all of his money from the vault in the
CBS: fire-threatened area, put it in a wagon, drove outside of San Fran-
cisco, and set up banking facilities.

I don't know who made the proposal, whether it was his own idea or not, but he finally decided to give that million and a half dol-
lars to the regents of the University of California to establish the Giannini Foundation of Agricultural Economics to study economic prob-
lems and to train students in the economic side of agriculture. Who-
ever wrote the provisions of the gift wrote it in very broad terms, but we have always used it in the economic side of agriculture.

All right. The gift was accepted by the University in February of 1928 and the University had the responsibility of setting up the organization. They determined to call it the Giannini Foundation of Agricultural Economics -- they weren't quite certain whether they would use the word "of" or the word "for" and I think I settled that.

Hutchison Becomes Director

CBS: Well, I came back to this country on my annual trip in April, 1928. That was the time I brought back the big Cambridge proposal, and we worked the details of that out. The board approved it and then I started out to make my annual trip around the country visiting various institutions, including California. When I reached Berkeley I heard about this Giannini Foundation of Agricultural Economics, a new thing. I talked with various people around the college -- Dr. Merrill, Tom Tavernetti -- and I guess it was Tom who said to me, "How would you like to be director of this Giannini Foundation?"

Well, I laughed and said, "Well, Tom, you know I'm not an economist." And we didn't talk very much more about it.

I finished my trip and was headed back to New York, was on the Santa Fe train some place between Los Angeles and Kansas City, when the conductor came in to deliver a telegram to me from Baldwin Woods, who was in President Campbell's office at that time. This telegram read something like this: "Will you go to Cedar Rapids at President Campbell's invitation to talk with him about the directorship of the Giannini Foundation?"
So I did, and he made the proposal to me that I come home, as he said, and set up this new enterprise. He said, "We'll give you carte blanche to do with it as you will, to organize it on whatever pattern you think best." Well, I listened to him carefully and we talked about the possibilities, etc. Finally I said to him, "But Dr. Campbell, that sounds like a job for an economist, and you know I'm not an economist."

"Well," he said, "you can get some, can't you?" So we talked on and finally the idea was developed that if I came home to do this I would "get some economists." In other words, I would assemble a staff to work on economic matters and I would then have time personally to act as a sort of director of research in the whole college and the Experiment Station, and that interested me greatly, because it was just what I had been inquiring into in Europe. And relatively speaking, let's say, I was reasonably well-informed of some of the more important things that were occurring in the field of agricultural research in America and in Europe at the time. And to come back home to not only get this new enterprise going, but also to have some opportunity to lend some influence in further strengthening the scientific side of this College of Agriculture — that appealed to me.

And there was another factor in it. I had been abroad for four years and I was getting to the point where I liked it so well I thought, "It's about time you were going home." I didn't want to become an expatriate, and four years abroad was maybe enough. So I came back to organize the foundation and got some of these economists that President Campbell thought I could.

Giannini Hall

WKB: I suppose one of your first problems was to acquire physical facilities for the foundation?

CEH: Well, the president and the regents had already decided that they would expand about a third of that gift, namely $500,000, to build
Giannini Hall. The buildings on this campus occupied by the College of Agriculture were then Agriculture Hall and Hilgard Hall. All of the activities save those in veterinary medicine and poultry husbandry were housed in those two buildings. They were all there because Giannini Hall was built the same year that the Plant Sciences Building was built, in 1930. Giannini Hall in outside dimensions is a duplicate of Hilgard Hall. It completed the agricultural center that had long been planned for the Berkeley campus.

That left a million dollars to be invested, and the income from that investment was the income of the Giannini Foundation of Agricultural Economics.

I was wondering about the building. Were the plans already made before you came or did you have a lot of hassling about it?

No. I had an opportunity to work with the architect, Professor William Hays, who was professor of architecture in the School of Architecture. I had an opportunity to help, not from an architectural point of view, but to work with the architect in designing the interior we wanted and needed.

Was there a committee assigned to that?

Oh yes, but not like we work today. We had to take care of a number of other College of Agriculture activities. The dean's office was moved over from Agriculture Hall. And the whole Agricultural Extension Service was moved in from Agriculture Hall. The department of forestry was moved into Giannini Hall from Hilgard, all of which relieved the pressure for other activities in those two buildings. So it was a great improvement in the College of Agriculture's physical facilities on the Berkeley campus.

A.P. Giannini

Did Mr. Giannini take any further interest in what the foundation did?

Oh yes, in connection with the program.

Not with the architecture of the building.

Oh no, I'm sure he didn't. This brings to mind one interesting
event. When we designed the building a niche was left in the foyer, the lower part of it at the main entrance. I thought it would be a nice thing to have an oil portrait of Mr. Giannini to place in that niche. So I got in touch with some of his immediate associates in the Bank of America and asked if they would not like to have a portrait painted of Mr. Giannini and give it to the University. Word came back that Mr. Giannini would not agree to it. But he autographed and sent to me personally that photograph of him on the wall there. I waited until his death and then I renewed my request to the directors of the Bank of America. I was invited to their main building on Montgomery Street in San Francisco, to the board room of the bank, and given my choice of two portraits of Mr. Giannini that hung in that building. I chose the one that was painted about the time that that photograph was taken, and about the time that his generous gift was made to the University.

WKB: Yes, it looks very much like it.

CBH: He was a younger man, you know, when he made this gift to the University, and that portrait is an excellent likeness of him at that time. From my point of view that niche was designed to be used for such a portrait, but his modesty delayed it.

WKB: Did Mr. Giannini have any ideas to offer as to what he thought you ought to go into?

CBH: No. He watched it with a great deal of interest... Wait a minute, he did. He, or maybe one of his associates, asked us to make one study, and that's all. They wanted a study made of the economic and marketing status of the artichoke industry. Why? Some of his Italian friends were engaged in it and he as a produce man was familiar with it. But I think that is absolutely the only request made of us, and I'm not certain that he made even that one. As I said, maybe it was some of his associates in the Bank of America. But there was never any attempt to dictate, or even suggest. At the time we were making a series of marketing studies of California fruit and vegetable industries. Artichokes being nominal in total value here was pretty well down on the list. We moved it up
and gave it a little higher priority. To the best of my knowledge that's the only request that either he or any of his associates in the Bank of America ever made to us.

But he was interested, always interested. At meetings frequently he would ask how things were going, what we were doing, and all that.

WKB: Would he come over and look around?

CBH: No, I don't think so. I can't remember him ever being in my office, even after he became a regent.

WKB: That's funny. You'd think he'd want to come over and sort of look around his building and see what was going on.

CBH: Yes, one might.

WKB: I suppose he thought that would look like pressure.

CBH: He might have placed that interpretation on it. But after all, he was a modest man, I think a great man, but a modest man. And I was quite fond of him. When he became a regent and a member of the Agriculture Committee -- he knew a lot about agriculture and his judgments were sound -- whenever the president would ask me to present some important project to the committee, when I saw Mr. Giannini's head begin to nod, I stopped talking, because I knew he had accepted it and would carry the ball, if necessary, from there on.

WKB: It was all right, it was accepted then.

CBH: That's right. I well remember one time a meeting in Los Angeles when the temperature was about a hundred degrees, the humidity at the saturation point, and it was a disagreeable smoggy day. It was in September, and we met out on the U.C.L.A. campus. I had four important projects to present. I've forgotten what they were but I well remember there were four, and the president asked me to make the presentation to the Agriculture Committee. They were all approved. After it was over Mr. Giannini came around and said, "Well, I'm glad to see you've been at work." He, like myself, believed in work.

WKB: In other words, he had a lot of influence on the committee.

CBH: Everyone had great respect for him. Yes, if you want to call it
influence, but it was respect and admiration and confidence, because he was a successful business man and he knew agriculture. He was a good supporter of the college.

Setting Up Giannini Foundation

How did you go about setting up this new organization?

Well, let's talk a little bit about the general situation in the college at that time, and the general situation in agriculture in California. I think I said to you that President Campbell gave me carte blanche to organize the foundation, set it up as I thought best. He said, "If you want to make it an independent agency within the University here, that's all right. If you want to make it a part of the College of Agriculture, that's all right." So I might have set it up at that time as a small affair with an income in those days of, let us say, $60,000 from the million dollar endowment, because the regents were able to invest endowments in those days that would return six per cent. But $60,000 would provide a small budget for something independent and important — as we hoped to make this undertaking. We were already expending in the College of Agriculture from public funds, state and federal appropriations, perhaps twice that amount in the field of agricultural economics.

So I hit upon the scheme of making the Giannini Foundation first of all a large umbrella under which we would bring together a number of things that were going on in this field in the College of Agriculture. I therefore said to the president, finally, "I would like to make this enterprise a part of the College of Agriculture, and I as director of the Giannini Foundation wish to report to and through the dean of the College of Agriculture." So we set it up in that way.

Now at that time there was considerable agricultural economics work going on in the division of agricultural economics, and quite a group had been built up in the Agriculture Extension Service dealing with agricultural economics with farmers over the state. Some
economic work had been started also in forestry, and there was some connected with irrigation — all of which were in the College of Agriculture, you see. So it didn't seem to me wise to set up another small group of people working independently in agricultural economics. The wise thing it seemed to me to do would be to capitalize on this name, Giannini, for public interest and public support, and develop our organization that I have characterized as an umbrella, the umbrella being the Giannini Foundation of Agricultural Economics, and with appropriate academic titles given to all of the people in the division of agricultural economics and the title of associate to some people in forestry, in irrigation, and the group in Agricultural Extension. So ultimately that came to be our Giannini Foundation of Agricultural Economics. I think this pattern is still used.

You made a far more significant thing out of it.

Yes, and a far more significant thing than could have been done by itself. It helped us gain public support for the work which was financed elsewhere in the budget in the name of the Giannini Foundation of Agricultural Economics.

It sounds like Giannini got quite a substantial return for his one and a half million dollars that way.

That's right. There's no question about that. Some people might say that Mr. Giannini got more credit than was due from this relatively small gift, but that doesn't bother me at all. The University has gained, by the use of that name, public support in the field of agriculture without any doubt. In those days — I'm talking about 1930, thirty years ago — we certainly didn't have as strong support from the state in the field of economics as we have today.

Wasn't agricultural economics a fairly new subject at the time of the beginning of the foundation?

Yes, it was. As a matter of fact, prior to World War I very little work had been done by colleges of agriculture in the field of agricultural economics because most of the problems of agriculture were to be found within the farmer's own farm fences. What he did was the controlling factor, and his problems were very largely those concerned with production. They involved soils, irrigation, plant
diseases, plant pests, plant improvement, things of that sort, all
directed at increasing production. The first elements of agricul-
tural economics in colleges of agriculture took the form of farm
management.

Within the confines of the farm.

Yes, and again in managing the farm enterprises in such a way as to
make them more productive. It took World War I and the world-wide
depression which followed that to stimulate interest in what we now
call agricultural economics.

I think it was in 1925 that the government first authorized that
some of their funds for agricultural scientific research could also
be devoted to agricultural economics problems. Before that, the
funds had to go for technical research.

Yes, about that time the Purnell Act — the third of the Agricul-
tural Experiment Station Acts — was passed by the Congress. It
provided for the first time funds to the state agricultural experi-
ment stations for research in the economics of agriculture.

And mind you, this gift from Mr. Giannini came just before the
economic crash in 1929 but after the agricultural depression had
been well recognized in the country, and after the Congress had set
up the old Federal Farm Board during the Hoover administration and
given it a capital of $500,000,000 — a staggering sum of money in
those days — to take off the markets the surplus of agricultural
products that had accumulated under World War I legislation and the
slogan "Food Will Win the War." The idea of the Federal Farm Board
was to buy up these surplus products to take them off the market
temporarily, and then to gradually feed them back into the market
without disrupting normal channels of trade. The thought was that
the normal channels of trade had become clogged with surplus farm
products and that if once we could get that surplus off the market
and then develop more orderly marketing procedures all would be
well again in the field of American agriculture.

So cooperative marketing was emphasized by the Federal Farm
Board. Mr. C.C. Teague, who later became a regent, the man who or-
ganized and who was for many years president of the California Fruit
Growers Association, now the Sunkist organization, who organized
the Walnut Growers Association and who was regarded nationally as
one of the most outstanding leaders in the field of agricultural cooperative marketing, was a member of that Federal Farm Board. His philosophy, like that of many other people, was to promote agricultural cooperative marketing throughout America, and once you got those surpluses out of the way through orderly cooperative marketing, which he and his associates had used so successfully in the citrus industry, everything would be lovely.

Well now, let's go back to the Giannini Foundation. You see, we were in the midst of all this difficulty, so naturally among the first things that we did was to expand our work in marketing. This was no time to set up an organization to deal with abstract and theoretical principles of economics as applied to agriculture. We had to be a little more practical, we thought. People of the state, Mr. Giannini himself, were very much concerned about the economics of California agriculture and the unfavorable economic situation that California farmers were in. The College of Agriculture was already working on some of these things, and when we set up this umbrella and got the Giannini Foundation under way we emphasized first of all marketing.

One of the first things that was done was to send Director B. H. Crocheron, director of Agricultural Extension Service, to the Orient in an attempt to survey the possibilities of increasing the sales of dried fruit, California dried fruit, in that part of the world. The dried fruit industry had never explored this area as they had Europe. He visited various Oriental countries, got in touch with our agricultural attaches in those areas, studied the marketing possibilities, and brought back the information for the raisin growers and other dried fruit processors in the Dried Fruit Association. It's hard to measure what the returns of that study were, but at least it was an attempt to see if it was possible to increase the sales of California dried fruit in that part of the world. This was useful, even though the answers were largely negative.

What I was wondering was how you determined what research to undertake. Did you get requests from people with problems?
CBH: No, I think the proper answer to that question is that the staff and I, as well as everybody else, recognized these economic problems, particularly marketing and other things before us. I did set up and maintained as long as I was director of the foundation a small advisory committee of farmers; I think there were three people. And I discussed with them and with other farmers and farm organizations some of the more pressing problems in the field of agricultural economics in planning the early program.

You see, in the foundation's charter, if one can call it that, the provision of the gift is a very broad one. Under it one can do most anything the College of Agriculture is doing, not only in economics but even in other areas. But other activities of the college were pretty well supported by public funds. The economic side of agriculture was pressing at the time. Mr. Giannini's interest was in that field. These were the chief reasons that we decided to utilize this fund strictly in the broad field of agricultural economics. The foundation then has to all intents and purposes become the University of California's department of agricultural economics. The great percentage of the total funds now used are public funds.

WKB: Yes, you wouldn't get very far with $60,000.

CBH: At one time, during the depression when the interest rates were low, we were down to, I think, $35,000.

Building a Staff

WKB: How did you get the staff? You used many of the people who were already in the department.

CBH: Yes, all of the people who were there were brought under this umbrella. Then we used the increased income, which was derived from the income from the endowment, to establish other positions.

In those days, in my judgment, the three most outstanding agriculture economists in America were, moving from the West Coast eastward: Dr. Joe Davis in the research institute at Stanford;
Dr. Edwin G. Nourse, president of the Brookings Institution of Washington; and Professor John D. Black of Harvard. I had known John D. Black when he was at the University of Minnesota during my period abroad. So I consulted these three people. In fact, I invited Professor Black to come to California as a member of the staff of the foundation. He considered it seriously, and ultimately confessed to me that if the invitation had come to him while he was at Minnesota he would have accepted it. But in the meantime he had gone to Harvard and was getting established there and he felt that he didn't want to leave Harvard. So he had something to do with helping me select the early appointments. The first appointment was Dr. George Peterson, one of Black's students, who unfortunately didn't live long after he came here.

Another of John D. Black's students was Professor James M. Tinley. He was a South African. He had studied with Black at Minnesota, got his degree at Minnesota, and had gone back to South Africa. We brought him over from South Africa, and he's still here. Another one of Black's students was Professor Murray R. Benedict who retired just a year ago. He has done some rather outstanding work in agriculture economics, and is a national figure. Another man who Black urged me to bring to California was Howard Tolley. Tolley was then in the United States Department of Agriculture. It was perfectly clear to me that Black thought very highly of Mr. Tolley, and it occurred to me if we could get Tolley to come out we might ultimately get Black too, despite his Harvard connections. Well, it turned out that he finally decided not to leave Harvard. But in the meantime Mr. Tolley came and soon afterwards we made him assistant director of the foundation because by that time we were beginning to get the staff going and I was getting a little deeper into the other things, you know. I was already visualizing Tolley as ultimately succeeding me as director of the foundation because I was expecting my responsibilities as associate director of the Experiment Station would command more and more of my time, energy, and interest.

Then I became dean of the College of Agriculture on January
CBH: 1, 1930, and director of the Agricultural Experiment Station at the same time.

WKB: So you really had only two years as director of Giannini.

CBH: Less than that. Well, wait a minute. I think I retained the title of director for a while longer.

WKB: You carried it until 1931.

CBH: Yes, another year because I was not quite certain until early 1931 that I couldn't induce either Professor Black or Nourse or Davis, each of whom I extended a personal invitation, to come to California as director of the foundation. I didn't let it go so far as to make them formal invitations from the University, but I inquired of them, and talked with them seriously from time to time. I would have been happy with any one of them because, in my opinion, at that time they were the three leading agricultural economists of America. Once I decided that no one of those men were really available, then I made Mr. Tolley director.

WKB: And what was Mr. Tolley's background? You say he'd been in government service.

CBH: Yes, he'd been in the United States Department of Agriculture for a long time. He's a graduate of some liberal arts college in the Middle West, I believe, and had attained quite a stature in the Department of Agriculture. He said to me in the course of our conversation about his coming to California, "I've concluded that the Department of Agriculture is not the place in which to grow old," meaning that he didn't want to spend the rest of his life in the Department of Agriculture. And I think he was quite sincere at the time; still he had some difficulty in adjusting himself, after that long experience in government, to an academic environment and position.

He hadn't been with us long enough to have completely made that transition when the first Roosevelt administration came on in 1933 and the Congress set up the old Agricultural Adjustment Administration, the first attempt to solve the agricultural problem in the Roosevelt regime.
Was Mr. Tolley favorable to the AAA?

Yes. Henry Wallace was President Franklin Roosevelt's first secretary of agriculture. He knew and respected Tolley and would ask him to come back from time to time to help him with some matter. There were two or three such assignments that Tolley went back to do, just for short periods, a period of a few weeks or months, extending all told over a period of perhaps two years. Finally those calls became so frequent that it just seemed to me we couldn't go on that way. We had an important job to do here. I still had every confidence in Tolley that he could do it, but he was being called back to Washington so often he couldn't settle down to the tasks here. Finally I just simply had to say, "Tolley, you've got to make up your mind as to which of these things you want to do. Do you want to continue in the academic field and devote your full time and energy to the important job we have to do here in California as director of the Giannini Foundation or would you prefer again to go back to the type of agricultural economics and research and study that the federal government is doing? You realize as well as I do that this situation at the moment is not satisfactory."

He, of course, agreed and said, "Well, I think I'll go back to Washington." And all this happened during the brief period of about three or four years.

Was Tolley's background administrative or research?

Both. He had had some administrative experience but quite a lot of research experience in the old Bureau of Agricultural Economics.

What did you do after he left?

I can't recall whether then I turned back to Joe Davis or to Carl Alsberg, both of whom were at Stanford, and both of whom were in Stanford's Food Research Institute. One reason why we were not able to attract Professor Davis from Stanford was that the Davises had a daughter whose health was not too good at the time and Mrs. Davis felt that leaving the "farm" -- they lived on the campus, in the quiet atmosphere down there -- she felt that bringing their daughter into what she called "a metropolitan area" like Berkeley was unwise. I know that was an important factor. It could have
been the controlling factor in Professor Davis's consideration.

Later on, Professor Robert Calkins, then chairman of our department of economics here, a Stanford graduate and a friend of Carl Alsberg, and I, at luncheon one day at the Faculty Club, fell to talking about Alsberg as a possibility for the directorship of the Giannini Foundation. I asked him to talk with Professor Alsberg some time at his convenience, to see whether Alsberg would be interested in such a proposal.

In the meantime there had been another step. I tried another member of our staff and made him acting director for a while. He was in many ways the best scholar we had in the Giannini Foundation up to that time but he was not an administrator and was a bit unhappy in it. It soon became evident that this would not work.

Then I turned to Alsberg. I well remember that Bob Calkins telephoned me one day saying that Alsberg was going to Europe for four months and that if I wanted to carry this thing any farther I had better talk with him myself. So I drove down to Stanford one Saturday afternoon and visited him in his home, talked the thing over with him, and found that he was really interested. He was going off to Europe early the next week, but I talked with him enough to be willing to wait until he got back for his final decision. In the meantime I went through the procedures we use here in the selection of people... A committee nominated by the budget committee at the president's request, but appointed by him to review carefully such proposed appointments. But that was easy in this case. When you present names like any of those that I have mentioned here, review committees seldom disagree. And that, parenthetically, is an important check upon any administrative judgment.

Our system of checks and consultation with the faculty here is splendid. And I think the function of the administrator, who takes his job seriously, is to do the original searching. In this case, as in others in which I have been involved, it worked well. When Professor Alsberg came back from Europe he wrote me to say that
if he was appointed he would accept. That's the way I brought him
to the University.

It might be interesting to record here perhaps the basic reasons
for his decision. A professor doesn't leave an institution like
Stanford, where he has been productive, happy, and content for a
number of years, without some good reason. Not very many people
leave Stanford to come to Cal or leave Cal to go to Stanford. For
many years, going back to Benjamin Ide Wheeler and David Starr Jor-
dan's days, there had been a sort of "gentleman's agreement" be-
tween the president of Stanford and the president of the University
of California that neither one would attempt to raid the
other's staff without substantial reason and without informing the
other. [Laughter] So before I got too far into this thing I talked
with President Sproul and had him talk with the president of Stan-
ford -- Tressider was it? — to clear my way.

But the reasons: Alsberg was sixty years of age at that time.
In those days Stanford had a rigid retirement age of sixty-five.
Alsberg's health was good, his mind still keen and alert, and he
didn't look with any favor upon compulsory retirement five years
hence. Now California had, in respect to retirement, an age limit
of sixty-five for administrators at that time, but professors could
serve on to seventy. So I was able to say to Alsberg, "If you will
come to Berkeley we will make you director of the Giannini Founda-
tion until you reach the age of sixty-five and we will assure you
a full professorship throughout the period from now until you are
seventy." So I had visions of him at the helm directing the founda-
tion's work for five years and on the staff for ten.

He came and was quite happy. He did some nice things while he
was here. He helped get the foundation on a more definite and
scholarly basis. But unfortunately he died after being here only
three years.

And then I made Dr. Harry Wellman director. He was already
here. Harry was, when I first came back from Europe to set up the
Giannini Foundation, an Agricultural Extension specialist in econ-
omy and had done some very nice work with the farmers of Calif-
ornia and had demonstrated his unusual ability. So, soon after I had returned, he came in to see me one day to ask if there was any place on the staff of the Giannini Foundation that he might occupy. I said I would keep him in mind. Upon talking to Professor Crocheron — Crocheron was Dr. Wellman's immediate superior officer — I found he had no serious objections to Wellman's transferring to the resident staff, though naturally he didn't like to lose such an able man from the Extension staff. He recognized, however, that this was an opportunity for Dr. Wellman. We brought Wellman in on the staff first, where he served under Tolley and under Alsberg. When Alsberg died I thought it was time to make Dr. Wellman director of the foundation and this was done. And from there he has gone on to being vice-president of agricultural science, succeeding me in a way, but not exactly, when I retired, and now he's vice-president of the University.

WEB: You say that Giannini was established on a more scholarly basis by Dr. Alsberg. Did it take more practical problems before? Was there any difference in the way Giannini was run earlier and later?

CEH: No. We were building, right from the start. But Alsberg added strength to the staff and intellectual quality to our work in the field of agricultural economics.

When I became director of the foundation, I had letters from two or three people in other universities in the United States saying that we would make a great mistake in this little enterprise in California if we didn't do something in the field of rural sociology. They ended their letters by intimating that they were available, and would be happy to try it. Well, I had become somewhat interested in this rather ephemeral field of rural sociology because we'd been struggling with it a little in Europe. Finally we gave it up because it was too ephemeral and we couldn't get, as Dr. Rose once time said, "our teeth into it." Yet interest in it was growing throughout the United States, and I was open to suggestions. But try as I would I couldn't find at that time anyone in the country that I thought met the University of California's standards of
scholarship working in this field. So we just set it aside as one of the things to be thought of and watched, and ultimately we might do something with it.

Well, Alsberg found a young woman. Dorothy Thomas was her name, quite a person. I asked Alsberg one time when he came in to me to talk about it with me to have her give him -- to pass on to me -- a memorandum on her conception of rural sociology, what it was. Define this field for me. What are the opportunities for study in it? How can such studies advance our understanding of human relations and contribute to the welfare of rural California? Well, I was tremendously impressed with the memorandum that she gave us. When you find someone who seems to have the same basic philosophy on something as you have you think that person's pretty good. Her statement was the most definite statement of this field and its possibilities that had yet come to my attention. I encouraged Professor Alsberg to bring her to the foundation and he did. Later on, she left us to go to the University of Pennsylvania. Whether she left before Alsberg died or not I can't remember.

One of the best things I think that she did, before leaving the University, was make a study under a Rockefeller Foundation grant of the movement of the Japanese from the Pacific Coast into concentration camps during the war. She made a fine study of that matter which I think has influenced America's thinking on the terrible thing we did to many Americans under the pressure of the war and fear of the Japanese navy attempting to land on the mainland. The Japanese who lived here, even though they were second and possibly third generation Americans, were as loyal as anyone else; we did a most unfortunate thing in rooting them up and moving them into camps. Dr. Thomas made a very careful study of all this and a fine contribution to tolerance and understanding.

WKB: In your contacts with farmers did you feel that maybe California opposition to the Japanese in the farming industry was one of the reasons to get rid of them?

CBH: No, you've got to give the army full credit for that. It was a military precaution, I am sure.
You don't think there was any collusion with farming interests?

No. The attitude of farmers was purely economic, with a little sociology in it, because some of the wives and daughters of Japanese farmers worked in the fields and that was foreign to American ideas of farming and farm life. But the primary conflict was economic.

I've read some quotations of farm bureaus in California saying in the charters that no members of the Japanese race or of Japanese ancestry can become a member of the farm bureau and so on.

That's discrimination, similar to the by-laws and practices of some labor unions and like the national charters of some of our sororities and fraternities which discriminate against non-Caucasians. There's more justification for it in a sorority or a fraternity than there would be in a commercial organization like a farm bureau. But we've had those things in organizations in these United States of America and I think we're gradually getting over it.

I'd like to believe and I do believe that we're becoming more tolerant and more understanding and more appreciative of the dignity of man regardless of his race, color, creed, or the country where he was born. But it takes time. Some people are more impatient about these things than I am. I believe in education; I believe in persuasion; I believe in that sort of approach to many things, whereas some others among us get impatient and want to force things.

It's a very difficult question, and far from Giannini.

Yes, and we have a long way yet to go. I would summarize everything I've said by this: the Giannini Foundation has become our department of agricultural economics and as I aspired to have it, one of the leading centers of agricultural economics in America. We have yet much to do, but a good start has been made. I know it has established a good reputation among other centers of agricultural economics, one which I think the University of California can be proud of. It is perhaps handicapped in one way: California's agriculture is not typical of American agriculture. It's a bit on the periphery of things, and very diverse. Its farming is highly specialized. It
therefore is not typical of eastern, midwestern, or southern general agriculture. Maybe because of our geographical location and especially our agricultural environment we can't ever expect to be typical of American agriculture. But that doesn't need to prevent us from becoming one of the outstanding educational centers of the nation. We can still do a good job educating, and in research for California and the arid and semi-arid regions of the world.
Section II  Dean of the College of Agriculture
1932 Blue and Gold
Dean of the College of Agriculture
ADMINISTRATION OF THE COLLEGE OF AGRICULTURE

Administrative Organization

WKB: What was your administrative position as dean of the college?

CBH: In my time the dean of the College of Agriculture was the chief administrative officer next subordinate to the president of the University, in charge of all of the University's work in agriculture, forestry, veterinary science and home economics at Davis and Berkeley. Under him, if we are to make a chart and complete it, there was a director of resident instruction, a director of the Agricultural Experiment Station, and a director of the Agricultural Extension Service.

Now, during the majority of my period, I served not only as dean but director of the Agricultural Experiment Station. My immediate predecessor, Dr. Merrill, did the same thing. But both he and I had someone looking after the resident instruction on each of the three campuses, Berkeley, Davis and Los Angeles. I ultimately called those men assistant deans of the College of Agriculture. I had one in my office at Berkeley, one in my office at Los Angeles, one in my office at Davis. They also functioned as assistant directors of the Experiment Station.

I perhaps was not so concerned with a beautiful, well-balanced organized chart as some people are. Because we were quite scattered, with instruction on three campuses and research on four, I thought we had to make certain other concessions to this chart-forming business in order to get the job done without too great expense. You see, this type of organization which I have described could become very expensive in an institution like California which has to operate its College of Agriculture on four different campuses. So we combined titles, gave men more than one title, and over the years saved considerably in administrative costs in that way.
We can discuss the Experiment Station and Extension separately. How did you organize the administration of resident instruction?

I've always had in resident instruction someone to carry perhaps the major load. The men whom I used in those capacities were Mr. Tom Tavernetti and Stanley Freeborn at Berkeley; William H. Chandler and Robert Hodgson at Los Angeles; W.L. Howard and Knowles Ryerson at Davis; and for research only L.D. Batchelor at Riverside. Tom was my immediate assistant, first at Davis and later at Berkeley. We worked together over many years. He was the first under my administration to have the title of assistant dean of the College of Agriculture. I put as much responsibility onto him as I could. I never thought of him or the others as being subordinate to me. We were all members of a team, and we were working together.

When Tavernetti died suddenly I brought down from Davis in his place Dr. Freeborn. I persuaded him to give up some of his teaching and research in entomology and come into the dean's office. He just retired last year as chancellor at Davis after a splendid career in teaching, research, and administration.

So there wasn't any feeling on my part of a military organization. It was teamwork. Everyone had a chance to try his ideas out. That's how we built this college. I well remember one afternoon after my administrative associates and I had been considering for two hours or more improvements in our administrative procedures Dr. Batchelor remarked, "Well, gentlemen, the success of this enterprise of ours is going to depend far more upon how well we learn to work together than upon who is boss and the processes of our chain of command."

At first we had divisions of a single department of agriculture, and then four departments — agriculture, forestry, home economics, veterinary science. We later organized forestry and veterinary science into schools. Just before I retired, the president, upon my recommendation, transformed the several divisions of the department of agriculture into departments themselves of the College of Agriculture. These divisions, later departments,
often had work both at Davis and at Berkeley, and sometimes the chairman of the department lived in Berkeley where the larger part of the total work of the department was centered, and in other cases at Davis. If the chairman of the department lived in Berkeley, I called it a Berkeley-Davis department and if the chairman of the department lived in Davis, I called it a Davis-Berkeley department.

There were some statewide departments too, organized and maintained as such for coordination of effort and convenience in administration. The best illustration of the way this worked was in agricultural economics, where the director of the Giannini Foundation always was chairman of the statewide department of agricultural economics, with staff and work at Berkeley and Davis and at Los Angeles.

The same pattern prevailed in the South in the divisions, or departments, at Riverside and Los Angeles — a desirable mechanism for the coordination of effort, the avoidance of duplication, and the promotion of unity and teamwork in a geographically "scattered" institution.

WKB: What was your relationship to the president?

CBH: Personally, always most cordial. Officially, I tried to make recommendations, never to present a problem to him if I could possibly avoid it. I tried to solve the problems myself, with the help of my colleagues, and recommend to the president what should be done, rather than toss the problem into his lap to worry about. He had plenty of other things to do and I thought it was my responsibility to find the solutions if I could. I liked to talk things over with him, of course, and I would seek interviews with him from time to time, even before I had crystallized my own thoughts. You see, I'd worked with him so long that I felt pretty confident that the same factors that prompted me to reach a solution would, if placed before him, clearly and fully, lead him to make the same conclusions. So I would try to solve the problems myself, and then outline the matter to him in a clear, concise manner, listing all of the pertinent factors that had guided me.
CBH: in my decision and end by saying, "Mr. President, this is what I recommend be done." And all he had to do was to say "yes" or "no." Most of the time he said "yes," of course.

WKB: Yes, I've been impressed by your reports.

CBH: Then, if you don't think this too immodest -- in fact, you at one time said this record wouldn't be published -- two instances: Mrs. Sproul one morning said to me, on the telephone, when I had called before going to the office to see how he was getting along with a bad cold, or some other minor ailment, "Bob says that you never bother him with the little things, and with the big things you know what to do." That was kind of a nice compliment, wasn't it? And one time President Lew Morrill of the University of Minnesota, a good friend of mine, told me: "Sproul said to me the last time I was in Berkeley, 'That fellow Hutchison runs an empire and never bothers me with it, but always keeps me well "informed"!' Now, somehow I had been able to gain his confidence, you see. We had talked as frequently as his time would permit and I came to see that my thinking checked with his on most things. I thus felt confident in proceeding with most things without bothering him.

Although from a budgetary point of view I was running about a fourth of the total University in those days, I am sure the president didn't devote a fourth of his time and energies to us. I thought it was my job to try to reach conclusions, sound of course, on most matters if I possibly could, with the help of my colleagues. I sought advice from them, of course. I don't mean to imply that I had all the answers but we in the College of Agriculture, let's put it that way, we ought to, I said to myself, have sense enough to solve most of our problems ourselves and in the way that we know the president wants them solved, without bothering him.

And incidentally, this gave us freedom; we didn't have to wait for decisions. People would come in to see me on some matter, a chairman of a department, or a group. We would talk it over and come to a conclusion and I would say, "All right. Now you go back and get started on it. I'll do the 'paper work' from now on to make it legal." Because I had confidence that when I got around
to make that recommendation to the president, he would approve it, and in the meantime the paper work would proceed in course and the work itself get underway. Otherwise, you see, you'd have to wait, to hold it up, wait until the president or one of his clerks had acted. You know how slowly these things go. And I think people in the administrative game have got to use some good common horse-sense to make some short cuts. Otherwise, the thing bogs down.

WKB: On administration, I wondered if there was any change in your duties after you became vice-president of the University.

CBH: I suppose that brought me into general University matters a little more, but that's about all, I think. I gave up the immediate jurisdiction in the Experiment Station, brought Dr. Paul F. Sharp in as director of the Agricultural Experiment Station, and he took on many of the things I had done prior to that. As vice-president I suppose I did a number of things of general import and of more or less useful nature in the University administration.

But the real change in what had been my duties came after I retired, when the College of Agriculture as an "institution" was discontinued and its teaching work only organized as the College of Agriculture. The College of Agriculture is now coordinated with the Agricultural Extension Service, the Agricultural Experiment Station, the School of Forestry, and the School of Veterinary Medicine. They even made the Giannini Foundation and the Kearney Foundation, both of them, coordinate to the above. And all of this is now known as the Division of Agricultural Sciences.

WKB: The Division of Agricultural Sciences, in other words, is the equivalent of the old College of Agriculture.

CBH: That's right. Whether it is more logical and effective or somehow sounder to organize the University's work in all of these related fields in that way, I am not sure. Some of my former associates intimate to me at times that there is less unity now, less "esprit de corps" than we had, in the old days, with our statewide College of Agriculture with its Experiment Station and its Extension Service. But maybe this is just nostalgia on their and my part.
To get the full picture, remember that the College of Agriculture now is strictly an academic college, existing on three campuses — Berkeley-Davis in the north and Riverside and Los Angeles in the south — each with its own dean and faculty of agriculture. That was the form of administrative organization put into operation upon my retirement. I am glad they were that considerate. In fact, Mr. Sproul one time said to me, "They're just waiting until you get out of here before they do some things around here." [Laughter] And that was one of the things they did.

Who do these deans report to?

Each, as I understand it, reports first to the chancellor of his campus and then, or at the same time, to the vice-president for agricultural sciences. That is Harry Wellman. In my time I was still dean of the College of Agriculture as well as vice-president — of course, I was in a little different position because my title was vice-president of the University. Mr. Wellman was the first vice-president for agricultural sciences under the new plan; he didn't have the title of dean. Instead there are three deans of agriculture on three campuses and the dean of the School of Forestry and the dean of the School of Veterinary Medicine all reporting to him.

So that his position was really the equivalent of your former position as dean of the College of Agriculture.

Yes, I believe that is right.

Now I understand that this hasn't been completely satisfactory because they appointed some time last year a University dean of agriculture, and that is Dr. Daniel Aldrich. That happened at about the time Mr. Kerr was made the president and Mr. Wellman was made vice-president of the University. I am not well informed as to details of the present administrative procedure, but I have always thought that the work in veterinary medicine, agriculture, and forestry ought ultimately to go through the hands of the same man before it goes to the top level of the University's administration. And that may well be what this new form of organization is designed to accomplish.
Faculty Recruitment and Promotion

WEB: You've mentioned from time to time the problems of recruitment of faculty. What do you think the role of the dean of the college or the administrative officer in charge should be in selection of new faculty members?

CBH: All right. Let's just talk about that for a while.

I have the feeling that recruitment of younger members of the staff can safely be left pretty largely to the department to initiate, for these appointments are generally temporary. Now the administrative officer has a responsibility, I think, to the University to review carefully and thoroughly all recommendations from the department because, after all, the selection even of an instructor should be taken seriously because if it is not and a dismissal comes, even if it takes place in the temporary grades, it is usually an unhappy event in the young man's life.

When you come to promotions, from an instructorship to an assistant professorship, I think it is wise to follow the same plan. First, the department should be completely satisfied at this stage, at least, that the young man still gives more than average promise. And there certainly ought to be by this time some rather tangible and definite evidence that he is worthy to take another step up our academic ladder. Up to the associate professorship it is, I think, safely left to the department and the administrative officer concerned. But I'm pleading that that administrative officer should take his responsibility seriously.

When you come to the associate professorship, of course, the University protects itself by having a very thoroughgoing examination and appraisal made of the young man, not only by his department, but by a committee of peers in related fields not too far removed, appointed by the committee on budget and interdepartmental relations to review and appraise the recommendation for promotion, coming from the department, to the first tenure grade, namely, the associate professorship. The same thing applies to a professorship.
I've always felt that if the young man has come up through our ranks here perhaps the appraisal at the associate professorship level is the most important because there is where you have to make the decision that this man is good enough for permanent membership in the University community. Then in between these formal appraisal periods the administrative officer and the department have some continual opportunity for appraisals, even if it is for nothing more than promotion in salary which, in my opinion, should not be made unless the department is still satisfied that he is the kind of person and type of scholar they want to continue.

The trouble is, if you leave even salary advancement completely to the department, you run the risk of personal friendships and other extraneous factors entering in and clouding judgments a bit. You get a little sorry. You know that his wife's going to have another baby or something has happened in the family and he's desperately in need of a little more money. And you know him, you like him, you may even become tolerant of his shortcomings, and your judgment of the welfare of the department and the University may be clouded. That is where an administrative officer who takes his responsibility seriously can be very helpful.

He can be a little more objective.

Yes. I think he can also, and I've done this two or three times, encourage the young man to seek larger opportunities elsewhere. Now that's a nice way of saying encourage him to resign. But it doesn't have to be brutal.

But getting back to department appointments, do you have any ideas how the department should go about selecting the young man, before he even comes to the dean's attention? A committee, or the department chairman?

Well, I should say a combination of both. I suppose one would have to say that the responsibility for recruitment falls first on the chairman of the department. But since most departments change their chairmen every few years, that means all members in the department should be aware of its needs and, if they're contemplating
asking the president to establish a new instructorship in the department, say, be looking for the kind of a man that they want to recommend to fill that position.

Now, they do this largely at scientific and scholarly association meetings. They see young men who are rising in their field of scholarship and have an opportunity to see them in action. They have some opportunity to appraise the work and capacity of a young man who is reporting, say, at some scientific meeting. The same is true of meetings of scholars in non-scientific fields.

Then our people, I mean the department people, also have opportunity frequently while traveling to a scientific meeting, to take a little time off to visit some other university and talk with the faculty there of the same department about their promising young graduate students. So you see there are various means of coming in contact with the young people. And, of course, reading the papers that have been published by these people in scientific and scholarly journals.

Then we have, too, what to my mind is one of the very best mechanisms for selection of appointments in the upper grade, the associate professorship and professorship namely, to invite the man under consideration to teach in the summer school, or give some special lectures, and see him in operation, see him in action. That wasn't such a good mechanism in my time, but I understand that now funds are frequently made available to a department to invite someone they are interested in to come and serve as a visiting professor for a time. That is a splendid thing, not only for the department concerned but for the man concerned, because he can, if he lives here with us for a while, learn much about the department and the University. Then when an invitation is made to him he is in a better position to accept or reject it than he would be if he had not had that experience on the campus.

But I can't lay down any specific formula or pattern, for the circumstances vary.

I don't know about the College of Agriculture, but I know some departments are rather badly split. They have perhaps several trends
WKB: within the same discipline, and there's a little war going on, and maybe one side has the upper hand. Now, I imagine they would tend to try to select men who would go in that same direction, and perhaps that wouldn't be to the benefit of the University, to have it all trend one way.

CBH: I have encountered, myself, problems of that nature, particularly in the non-agricultural fields at Davis when that was a college campus and everything there was under the jurisdiction of the College of Agriculture, including English, history, languages, economics, all of the other disciplines. The natural thing for me to do was to turn to my colleagues in those departments on the Berkeley campus for suggestions of people who they felt could fill our needs at Davis in their particular fields and who as scholars measured up to the University's standards, and in this I've generally had wonderful cooperation from the non-agricultural faculty people here at Berkeley. I do recall one instance where the department was split a bit and one professor recommended to me one of his graduate students, while another professor was quite certain that one of his graduate students was much better qualified for our post. I simply couldn't get a joint recommendation in this case, so I had to do the best I could, make the final decision myself. You do encounter situations like this, but I am quite sure they are by no means confined to the University of California. I think it just behooves us who take on administrative responsibility to be smart enough to recognize these human frailties, which even professors sometimes possess.

WKB: Yes. Well, I wondered what an administrator could do when the department under him recommends somebody whom he suspects is not for the benefit of the University, or that the department is tending too much in one direction.

CBH: What does the administrator do? Of course, if you start with the president, I would say that he, of course, can decline to approve the appointment, and let the department wrestle further with the problem. As for an administrative officer like myself, Mrs. Baum, I think the best thing he could possibly do would be, over the years,
to strive to gain the confidence of the people in the department to a point where, when he raises some doubts, they would stop, look, and listen, and be willing to look further. But you don't gain that confidence merely by being dean or by sitting in a particular chair.

That's another bit of my philosophy of administration. An administrator must earn the confidence of his faculty or else he is no good. If he can't do that he'd better get out of administrative work. I've often said that no man can possibly build an institution, or even a part of one, by himself, but he can easily wreck it by himself.

We've been talking here about departments and the department's responsibility. There may come a time -- and I've had a few experiences myself -- when the current faculty is seemingly satisfied with the status quo, and can not or do not see the importance of improvement. One time a young assistant professor in the University asked Professor Joel Hildebrand, a colleague and friend of mine, "How does the University go about improving departments? How does the president know that a whole department is not up to the University's standards?" And Professor Hildebrand replied, "Well, I suppose the University has to wait until the stench is strong enough to reach the president's nostrils." That does happen once in a while. Then President Sproul used to himself appoint a committee of professors in the University, men who knew a lot about the University, men who were eager to do everything they could to advance the University's welfare, and ask that small group to study some department and its needs and themselves seek new leadership for it.

To the best of my knowledge the president never himself discovered such a "stench" in the College of Agriculture, but I have, and I've done the same thing to rehabilitate it.

In the case of a department recommendation for a faculty member, or even for a promotion, if you did not think this was a wise move the first thing you would do would be to try to persuade them to look further?
CBH: Yes, I'd call the head of the department in and talk it over with him, tell him where my doubts lay. If he couldn't provide facts that he hadn't provided before to convince me that my first decision was wrong, then I suppose ultimately I would say to him, "I just can't approve your recommendation."

WKB: You said the department couldn't pass up a recommendation without your approval.

CBH: Oh, no. Well, I suppose theoretically they could, because everyone had the right of appeal to the president, and rightly so. But I can't remember of it ever happening. I can't even remember of any department even trying it. There again I think it not too immodest to say I think I had the confidence and respect of my colleagues. I have known of individuals who disagreed with some decision that I had made in respect to themselves who had gone further. I recall one case where a committee of peers ruled in favor of the man. In such cases all an administrative officer can do is just let nature take its course, live with the situation.

In the case in mind -- both men are no longer living -- I had advised the young man to look for larger opportunities elsewhere. While he didn't have tenure he'd been around a number of years. He demurred. The committee on privilege and tenure, I suppose it was, advised the president to act in his favor and against my proposal. One of the very prominent University officers, who knew the man as well as I, said to me, "Well, what are you going to do now? Let him stay around here and rot?" I said, "Yes, that's all I can do. I'm not going to embarrass the president by trying to persuade him to choose between a recommendation of one of his administrative officers and an academic committee. The president knows how I feel. He has all the facts. He'll make the decision and I'll abide by it." But I still think I was right.

WKB: What happened?

CBH: Providence solved our problem. The other man didn't live long. Now it's rather tragic on my part to say that, but that's what happened. By this man's death I later had the opportunity to strengthen that particular spot in the staff of that department, and I did it.
CBH: But I like to work the other way. I like to accomplish such things by persuading people. I remember two other men, both with tenure, who I was able, just by talking with them, to persuade to go elsewhere. No one likes to do that, but if one takes his administrative responsibilities seriously, as I insist every administrative officer should, he's got to do it. He can't escape, or else he himself is a failure. He lets the president and the regents down, indeed the University, if he does less than his best, even though he is tempted to, just because he likes somebody. I have often thought that maybe an administrative officer shouldn't have any close friends in that portion of the University's faculty that he presides over.

WKB: Yes, I think any administrative position can be a very lonely job if you want to remain objective.

CBH: I think so, but I think that's part of the price you have to pay. Now, I honestly believe I can say I struck a happy medium there, but don't ask me to prove it. I cannot remember any case where I let personal friendships influence my judgment as to what I thought was best for the University. I hope I didn't.

WKB: Are there any cases where the department and the dean may recommend an appointment or a non-appointment, and the president does not accept the recommendation?

CBH: Oh, yes. Sometimes it was due to the fact that -- in my time -- the budget was so tight that the president felt we just couldn't do that at the time. Budgetary limitations can happen any time.

Then there are times when a department and the dean may make a recommendation on promotion that a committee of peers declines to approve, and therefore the president has got to choose. When that happened to me I generally did this: I had another year to study the case further. The next year, if I still thought I was right, I made the recommendation again, and often it would go through. I don't mean to imply that every time it did.

But whenever a recommendation was turned down the president was always good enough to tell me why. If it was monetary, budgetary, it never bothered me at all, I accepted it at once, you see.
CBH: If a committee had declined — these committee reports were all confidential but the president would indicate, well, at least I always knew that a committee had declined — then I knew that there was some question about the man's ability and competence, because that's the only basis on which these committees operate. So I had an opportunity to talk with the head of the department who had originated this recommendation, and sometimes we'd talk with the man himself. And if something had developed in that committee's appraisal, its work, that I didn't know about, well, I always took that into consideration the next year when promotions came up. There's generally opportunity to adjust things that way.

WKB: I heard an interesting proposal just recently, and that is that the student body feels that they ought to have some say in who the faculty are going to be, not in appointment, but in promotion or retention or dismissal or so on, and I presume it's because they feel there hasn't been adequate attention paid to a man's teaching abilities as opposed to his research abilities. What would you think about students having either advisory or actual power of any degree in such things?

CBH: I don't think they should have any power. But I certainly think that the department and the dean of the college, or even the president, ultimately, ought to take into consideration the man's reputation among serious-minded students. Now, you've got to be very careful at this point. Some people are good entertainers. Comedians make you laugh. There'd be the danger there of an appraisal just on the basis of popularity. But a group of serious-minded students coming back year after year for a man's course, I think that's an important yardstick in measuring a man's teaching ability.

But teaching ability is a hard thing to measure. You can measure research ability, scholarly ability, writings, creative ability, other things, architectural plans in the field of architecture, engineering accomplishments, and so forth. These are all easier to measure than teaching ability. But after a man has been around a few years the dean can certainly learn something about that man's
success as a teacher from talking with students and talking with other members of the faculty. The dean doesn't have to go around snooping and sit in the man's classes and watch him. The dean learns.

Then you feel there are means of getting student appraisal, even though they are quite informal.

You can get it particularly from students in the professor's seminars. But you ask, what about the teacher of an undergraduate course who doesn't have seminars? If a goodly number of students every year, serious-minded, able students, take that man's course, I think it's a good appraisal, not alone of the subject matter, the interest that the students have in the subject, but also the way he is presenting it.

If I sat down and thought back over the years I think I could tell you who were some of the best teachers we've had in the College of Agriculture. I'm sure I never visited one of the classes. I've seen them perform at meetings, public meetings, seminars. I admit that measuring ability in teaching is hard to do, but I'd like to see a more serious effort made to do so. Indeed, in recent years the University faculty has been doing this. A few young teachers are being recognized -- how successfully I do not know -- for outstanding teaching ability. This I think is good.

Do you think it is important that a University instructor have ability as a researcher as well as a teacher?

I, for one, have always held the belief that university instruction and research go together. You can't divorce research from university instruction and have university instruction. You can divorce it and have a type of instruction left, but not university instruction. That was learned the hard way by a lot of these independent agriculture colleges that I was talking about the other day.

I think if the university teacher is himself engaged in pressing forward the frontiers of knowledge in his field he is a better teacher. It enlivens his teaching. It vitalizes his teaching and it strengthens his teaching. Therefore the research and the teaching ought to go together.
When you had to select someone to be in an administrative position, say head of a new department or head of a new foundation, how would you go about selecting that individual? This was usually your job, wasn't it?

Yes, that was my job. Once in a while I would have to find a new head of a department or division. Whenever that happened I wanted to fill it with the best man in the United States that was available.

I well remember one time when Professor Ralph Smith, who was the first Agriculture Experiment Station plant pathologist in the United States -- Hilgard brought him here and he was still active when I took over, and at the time still chairman of the division of plant pathology -- one day came in to my office, looked across the desk and said, "You know, you're the fifth one of these deans who have been around here since I've been here." He implied that he was kind of getting tired of us. And he said, in addition, "I've got only about five or six more years until I reach the retirement age. I'd like to be relieved of administrative work. I'd like to devote the rest of my time to plant pathology." I said, "Professor Smith, I'm very sympathetic. I offer you my full cooperation in helping you solve your problem if you in turn will give me your full cooperation in solving the problem which you now present to me and make my problem."

"How's that?" he said.

"Well, I want a little time."

"Oh," he said, "that's all right. You don't have to do it this next week or next month. There's no fixed time. But I'd like you to begin work on it." So I said, "All right, I will." As soon as I could get around to it I arranged a trip to the East, visiting the most important centers of plant pathology in the United States. I think immediately of three of those: the University of Wisconsin, the University of Minnesota, and Cornell. There were good pathologists elsewhere, but those were the centers principally recognized not only in this country but in Europe. (This wasn't very long after I had come back from Europe.) So I started out to visit
those institutions and talk with the people in plant pathology, most of whom I knew personally, several of whom I counted my friends.

I approached them in this way. I said, "I am searching now for another L.R. Jones, about thirty-five or forty years of age." L.R. Jones was for many years head of the department of plant pathology at the University of Wisconsin. He was about the same vintage as Ralph Smith here. If anyone deserves the title of father of American plant pathology, I think men of that generation would say that L.R. Jones should have it. I know that he was well and favorably known in plant pathology circles in Europe because I sent many students from Europe to study with him. And he was a world figure, a member of the National Academy of Sciences here, prominent in scientific circles in America. So I took him as my ideal.

Well, nearly everyone would say with a smile, "You really don't expect to find such a man, do you?" I said, "Well, I don't know if I can or not but I'm certainly not going to admit today that I can not. I'm going to continue my search. Now, who do you think, among the young plant pathologists of America, men of about that age" (I wanted them young enough so that we'd have many years of service from them out here, and yet old enough to have matured and really demonstrated their scientific ability) "who among them are the promising ones, who do you think just might possibly attain that distinction in time?"

Then they would mention some names. I jotted down these names and talked with them briefly about each man and moved on to another institution where I would go through the same process. I found, by the time I got around to all three centers, that one name occurred more often in those lists than anybody else's. I thought, "Maybe that is my future L.R. Jones." Anyway, I was so impressed by it that I brought him to California. That was Professor Max W. Gardner, and that was the way I found him.

I've used the same general procedure in filling other important positions. Once in a while — and I was never so happy as when this happened — I came home and I found my "L.R. Jones" already here, and all I had to do was promote him. But I wanted to be certain
that he was of that distinction, and I didn't know that he was un-
til I had made a trip around the country in that way and a survey
of other available men.

Now, I used to do those things myself. I suppose now that some
departments or some colleges would appoint a committee to do that.
I just wanted to do it myself.

WKB: I wondered what your comments were on tenure.

CBH: Oh, I think we have in the University a very satisfactory and a
very desirable plan of tenure. I believe in the principle of ten-
ure. But again, the very fact that we have tenure places upon the
administrative officers even more responsibility because if they
do not take that responsibility seriously and give tenure to peo-
ple who — well, you might wish later that you hadn't made that
mistake.

WKB: Was it ever feasible to use the good offices of some regent, for
instance, to persuade some outstanding man you wanted to come to
the University? I think that was done in the physics department
sometimes.

CBH: I've never known of it being done in the College of Agriculture.
If I felt I needed help in persuading someone to join our company,
I enlisted the help of the president of the University. Mr. Sproul
was pretty good at that, you see. But I think faculty recruitment
is an administrative function, not a function of the regents. To
the best of my knowledge I have never known of a case where the
regents were involved. I wouldn't want to say that I wouldn't
have used it if I had wanted to or felt the need of it, but I would
have used it only with the full knowledge and consent of the presi-
dent. And I would have used it primarily with one individual re-
gent who happened to know well someone I was interested in attract-
ing. And, of course, I would see nothing wrong with such a regent
letting it be known that he was a regent and that as such he was
warmly supporting the president's invitation. But you get into a
delicate situation with even the best of intentions when regents
are brought into administrative matters. I never did it and I'd
be awfully careful in using such a mechanism as that. If once you
CBH: did it, what's going to happen when you've gone to a regent, let's say, to solicit his help in persuading someone to come and next week or next month or next year you discover that a friend of his wants to come to California, and he comes around and proposes that the man be invited when you know that the man isn't of the quality that you want?

WKB: Yes, I can see there's a lot of danger in that.

**Staff Supervision**

WKB: On your supervisory duties, administrative duties --

CBH: I'm not strong on supervision or strong for supervision. In my judgment the best thing that a dean of a college of agriculture or a director of an experiment station, whoever it is who has the primary responsibility for building, conducting the affairs, is to gather around him a group of able people. He first of all should be able to pick out first-class people, and second, be so situated that he can support their efforts, and then provide them the greatest possible degree of freedom.

Now, over the years I tried to do that because I had on the staff of the College of Agriculture many minds that no one else could direct. They were capable of independent thinking and action and they knew better than anyone else how to get these important tasks performed.

We would, of course, have conferences from time to time -- a sort of forum or symposium on the current status of work in some field of science. It was something like going to a meeting of a learned society where people report to their colleagues what they are doing, and submit their results in the form of a paper to acquaint others and to stimulate discussions as to whether or not this thesis that someone held is actually sound. Has he proved it or not? And they benefit by mutual criticism and constructive advice. Then we would sometimes have conferences to take a look at some new problem that had cropped up in the agriculture of
California and what would be the best way to go about attacking that problem.

The chairman of a department had a number of younger people with varying degrees of experience in his department. He and his older and more experienced colleagues would certainly give the youngsters some direction and help. But as the director of the Agricultural Experiment Station for some eighteen years I never felt competent, except maybe in my own field of science, to express, except in a general way, any ideas of how we ought to go about it. I relied upon the vision, imagination, and competence of the staff of the departments.

Now, there is another way in which I tried to be helpful and I think I was. I encouraged cooperation not only between people within a department but across departmental lines. But at that I was always careful never to attempt to force cooperation because I don't think you can possibly force two people to work together who don't want to work together. Of course, I had some influence in another way, and that was from a money point of view. I had something to do with preparing the annual budget. But so far as the actual planning, of specific research proposals, let's say, I did very, very little of that.

VKB: How about people who were under you in administrative positions?

CBH: Yes, they were probably the ones who talked to me more about the work under their immediate jurisdiction than did the department people.

VKB: If you set up an assistant dean in charge of another campus I wouldn't suppose you could just leave that campus entirely in his hands. You'd have to do quite a bit of keeping an eye on things yourself.

CBH: Yes, I made it a point to get around to all the campuses once or twice a month, sometimes oftener. I spent more time on the Davis campus than the others because it was the largest -- more activity there -- and it was easier to get to, because to go to Riverside and U.C.L.A. it took an overnight trip down and an overnight trip back. I had no definite schedule however. I just felt that I
ought to get around to visit with my administrative colleagues, not force them to do all the traveling to come and see me. I would go to see them, and whenever I went to see them I would always try to visit a bit with the staff of some department or two, to be available and to render all the encouragement that I could without appearing to be dictating to them what they should do.

A lifelong friend and colleague of mine, Professor William H. Chandler, one of the first two or three leading American horticulturists of his generation, has put this philosophy of administration in these words:

The wisest dean I have ever known would call a conference occasionally. He would ask questions to bring out discussion so that men with different training and experience could help each other, but no decisions were announced. A man may then have sought further conference with anyone who had made suggestions of interest to him. If they thought they could be more effective working together than working separately and consulting, they might arrange for cooperation. Whether a problem was studied by a single worker or a group in voluntary cooperation, the workers had complete freedom coupled with clear and complete responsibility for what they undertook. If a man studying a problem directly concerning the growers of some crop found a promising lead for a basic study he was free to follow it. And if a man whose field concerned mainly basic problems thought he saw a promising application of his findings he was free to study that application or to arrange cooperation with someone in an applied department. By this freedom of choice I think the many problems studied show a better balance of service to the different orchard industries and a better balance between problems that arise on the farm and basic problems that arise from study of the scientific literature than any administrator with the best of advisors could have planned in advance. The administrator and his advisors make their contribution by care in selecting well trained men who have demonstrated effective working habits, and by supporting their work.

One way of being helpful was to provide as good facilities and as much assistance as possible. We hit upon the idea of providing research assistants in the College of Agriculture comparable to the teaching assistants that other departments of the University had. These assistantships not only helped advance our work, but we were able to provide some income, some support to graduate students in this way. Instead of aiding some professor in teaching a course, they would aid in some important Experiment Station
project. In that way, with relatively small sums I was able to add materially to the productivity of the Experiment Station in the different departments. These youngsters were serious-minded and able and determined graduate students who were concerned with getting their degree and getting the best educational experience possible. If we had waited until they had attained their degree and then engaged those people to work on full time it would have cost a lot more. I made a few dollars go a long way by that means.

WAB: What one of your duties do you feel took the most time? I understand you worked about an eighty-hour week.

CHE: I never kept track of the hours or attempted to budget my time, so that's pretty hard to say. I suppose I might say that while I was director of the Experiment Station I probably spent the bulk of my time trying to encourage people in their research undertakings and in conferences designed to determine how to go about study of some new problem that had come up: public relations, working with farmers, etc.; attending and speaking at meetings. Then preparation of the annual budget I suppose took more time than anything else. And, of course, during the last half dozen years, say the period immediately following the war, I, like everyone else in the University administration, was getting involved in the ever-increasing array of problems resulting from the growth of the University and the state.

Budget

WAB: Now we come to the budget and budget-making.

CHE: Well, subject to the approval of the president and in harmony with general University policy, I was largely responsible for the preparation of the budget of the College of Agriculture.

WAB: Budget problems took up a large part of your time.

CHE: Yes. Before I retired, the preparation of the budget was quite an undertaking. In those days we made two budgets. First for presentation to the legislature for appropriations we made a budget
of what we hoped to have. Then, after the legislature had met and
acted, we had to revise that and harmonize it in accordance with
the money that was actually appropriated. I go back to the time
when we had biennial sessions of the legislature. Every two years
we had to prepare a biennial budget -- primarily for legislative
purposes -- and every year an annual working budget. That took a
good deal of time.

During the last several years of my administration we had
built up our research program to a point where we used for research
more than 50 per cent of the total budget of the College of Agri-
culture. We used about 33 per cent of the total budget for the
Agriculture Extension Service, Extension teaching out in the state.
And we used some 17 per cent of our total budget for resident in-
struction, the academic work of the College of Agriculture. So
research has always been our greatest function, and Extension next,
and resident instruction the smallest, measured in budgetary terms.

WB: You're not including the federal contributions in this?
CBH: Yes, I'm including all the funds that the College of Agriculture
receives, from whatever source. Now, the primary source was from
the state legislature. I suppose the next most important source
was from the federal government, through the several land grant
college acts of the Congress, which authorize funds to all of the
land grant colleges. The next most important resource was endow-
ments, and then grants, grants made to the College of Agriculture
for research work from private enterprise, commercial and manu-
facturing organizations, particularly in the fields of soils and
fertilizers, insecticides, fungicides, herbicides, and occasion-
ally for studies under grants made by some chemical company that
was concerned with the development of new products for use in ani-
mal and poultry nutrition. There were some others, but those
would cover the primary fields.

Then in the final budget we would determine -- at best it was
an estimate, but fairly accurate, I think -- how we would use those
funds. Grants-in-aid, of course, and federal funds were provided
for specific purposes, and we used them for those purposes. But
state appropriations could be used for anything. How we used them depended on the particular need at the time. I've often said that there was no limit, within reason, to the amount of money the College of Agriculture could use legitimately for agricultural research, provided it didn't come to us in too large increments. But there certainly was a limit to the amount of money the state of California could afford to expend at any given time on agricultural research. So we had to be balanced in our planning and requests.

And by reason of generous state support, we were able to use allocations from federal funds for our most basic research in the physical and biological sciences, even though some of this work was not actually done in the College of Agriculture. By reaching over into another part of the University, picking up someone and giving him a title in the Agricultural Experiment Station, I was able to not only help support the research of that other part of the University, but I gained for the College of Agriculture and the Agricultural Experiment Station results that were most valuable to us, at much less cost than if we paid the whole bill.

I think it's no exaggeration to say that up until roughly the time of World War II there wasn't much federal support to the University of California, except through the College of Agriculture through the several land grant college acts.

Yes, we have some heads of departments who mention $100 or $150 a year for research in that department.

Quite true. For many years the academic senate had a board of research, and the president, in making up the annual budget each year, would scrape the barrel to gather together a few dollars to be made available to the people in other parts of the University for research and other scholarly activities.

The lump sum that came to the University -- did the president tell you, "Now, one-third of this is going to be for you," or a certain amount or a certain percentage is going to be for you?

No, he always would say, "Present your needs." I confess that I at times rather wished that he would tell me that a definite sum would be available for agriculture, but as I look back over it now I am quite willing to admit that so far as the whole University was
CBH: concerned, his course was the wiser procedure, and I am sure the College of Agriculture didn't suffer. We taught him a few tricks ourselves that he saw operating when he was vice-president and comptroller, such as assembling all departmental unexpended balances at the close of the year and using them for special equipment, minor capital improvements, or some other non-recurrent items the following year. When he became president he adopted the same plan for the whole University that had been used for agriculture. If it was good for the College of Agriculture as a part of the University, I assume he reasoned, those same principles were good for the whole University. I've been known even to tease just a little bit about that with him. But again I must hasten to say that our needs were given, in the allocation of such balances, the same sympathetic understanding as in the preparation of the annual budget.

What I'm referring to is this: prior to Mr. Sproul's presidency, the unexpended balances in the accounts of the College of Agriculture reverted at the end of the year to the college. My predecessors would expend those extra funds for non-recurrent items, to strengthen the physical equipment. We used to build greenhouses in that way. It was a nice thing to pick up these unexpended balances. No matter how carefully you design a budget something always happens so that you seldom come out exactly even. Naturally we couldn't exceed the budget. But it is difficult to run a big institution, a full-blast going concern, on full power right up to midnight on June 30th without a little give or take one way or the other.

Now, Mr. Sproul took the position, and I say quite properly so, that those moneys were appropriated by the regents for specific purposes, and if the College of Agriculture didn't use them for those specific purposes they had no right to expect that they could use them for something else. This was an improvement, I would say, in University budgetary procedures. But I have always, particularly in my early years, envied my predecessors just a little bit!

WFB: Unexpended balances all went back to the University on June 30th.

CBH: Yes. It was general University revenue. He met some of the sudden
problems, not only in the College of Agriculture, from those moneys, but also some in the rest of the University. I don't know whether this procedure is still followed or not, but in those days when our own books were closed and I knew what our balances were I would call the president's attention to them and say that we were going to return now to general University revenue so many thousands of dollars that he had not counted on in making the annual budget, and I would hope when he began to determine how he was going to spend them that he would give consideration to these needs of the College of Agriculture, and I'd list them. He was always sympathetic and would go down the list as far as he could.

WKB: Before you presented a budget, did you have some prior inkling as to how much the overall budget would be?

CBH: Yes. He would tell us the University's budget could not exceed a certain percentage of increase. By the way, let me say right at this point I always figured on some increase. As a matter of fact we had increases every year during my administration except one. From 1930 to 1952 there was only one July 1st that came around when I was told the College of Agriculture would have less money than it had the previous July 1st. That was in 1933.

As I say, we knew in a general way, not specifically in dollars and cents, but we were advised that it looked as if the University's total budget could not exceed the last year's budget by more than a certain per cent — 3 percent, 5 per cent, maybe as high sometimes as 10 per cent, but usually it was in the smaller figures — so we had that to guide us.

Beyond that, the president would always say, "Present your needs," and I would do so. First of all, promotions that we wanted to make. I've already described that process. I would then make recommendations for certain new positions to strengthen the staff, strengthen some department, or even to create a new department if there was some important reason for it. Then, increases in expenses and equipment and general assistance, the various items in the budget. If the whole budget of the University wasn't too tight the president would approve most of those. But sometimes he would have
to say, "We just can't do that this year. We haven't got enough money."

WKB: Would he then tell you which item to cut out or would he just say, "You've got to cut so many thousands of dollars"?

CBH: The latter was his policy. He seldom made specific suggestions as to where it should be cut. He, of course, would take action on promotions and advancements in rank and in salary, very definitely. But so far as expense and equipment was concerned, and general assistance, he would leave that to me to reduce in the best way I could.

He would also, very properly, act upon recommendations for new positions. He would sometimes say, "We can't allow that new position this year." I assume that that had some bearing on the number of new positions he was able to provide throughout the whole University, that we were not favored or were we discriminated against. He knew the total University's needs far better than I, and his judgment naturally prevailed.

On the whole we moved along pretty well, but nothing like as rapidly as the University is now growing because my period as dean of the College of Agriculture was mostly during the depression and World War II. During the first part of this period, dollars were the limiting things; in the second part of it, manpower and materials. So there wasn't as much growth during that whole period as would surely have been made under more favorable circumstances. Nevertheless, there was growth, and I hope sound growth.

WKB: Did the president scrutinize items individually, or ever ask you to revise the proportions of money that went for various things?

CBH: Oh, he scrutinized them carefully, and he acquainted himself with our needs. We were asked to provide supporting evidence for all items, but I've never known him to say, "I think you ought to spend even more money than you've asked for for this thing, and less for something else." I think he relied on me to keep things in reasonable balance. And by spending a goodly number of hours in writing supporting evidence -- I would have our departments provide the first part of it and I would add to it -- we were able to establish
The speaker, reasonable confidence in his mind that we knew what we were about.

KB: How did you get a departmental budget?

EH: Budget-making started with the department. A department chairman would formulate his requests. If the department chairman was at Davis these would pass through the hands of the chief administrative officer there for his comments and recommendations. Thus I would have the advice and requests of the chairmen of departments and of my chief administrative officers. Then ultimately I would add my own and send them forward to the president. Of course, these procedures evolved a little bit. As I think back now on the early years maybe the whole thing was a little more on my shoulders than it ultimately came to be.

KB: I was wondering if you had to look over each department's budget very carefully and perhaps ask them to revise specific items.

EH: Oh surely. I dealt with them much like the president dealt with me.

KB: It sounds like you kept a close eye on them.

EH: Yes, I kept pretty close tab not only on budgetary matters but reasonably close tab and acquaintance with what was going on. I must hasten to add that the college in those days was much smaller than it is now, and certainly the University was.

KB: If an increase of 3 per cent or 5 per cent was expected in the budget, would each department get the equivalent share of this increase in proportion to what they had before?

EH: No, that would be faulty budget-making because that would assume that you had a perfect budget last year, which is a false assumption. If you are certain that you have the proper balance and proper relationship between the several parts, then an across-the-board increase would be all right. But that seldom happens, because you just can't advance people, or departments, or your work, uniformly. If that could be done there would be no need for a dean of the College of Agriculture, just a good chief clerk. That's where administration comes in, in the use of judgment in these things.

If you had an additional $10,000 to use, you could spread it so thinly over a number of departments that it would make no difference. Yet, by taking small amounts from some departments you might in that way get enough money together to add a new professorship in
CBH: some department that was woefully undermanned. I have been guilty of reducing the expense and equipment requests of our various divisions — $50 there, $75 there, $200 there — until I finally got enough money together to do something substantial in one department. And maybe the next year I'd take another department that needed strengthening. I'm talking about a time when $50 or $100 or $1000 counted something, really meant something. I don't know what the budget of my part of the University is today, but I saw it treble in my time from roughly $3,500,000 to $10,000,000 or $11,000,000 in the twenty-two years, again of depression and war.

WKB: Did you appear at the legislature ever to speak for your portion of the budget?

CBH: Oh yes, occasionally, not only for my portion but for the whole University. And I was before committees, ways and means, the senate finance committee, at the invitation of the University's legislative representative. There have only been two in my time, Mr. Luther Nichols and Mr. James Corley. I stood ready at all times to help because we knew, and the rest of the University knew, that in those days the College of Agriculture was pretty close to the people of the state.

WKB: Were there any legislators who were particularly interested in the College of Agriculture?

CBH: Oh yes, and I cultivated that interest. In that connection there is just one delicate point which I tried always to keep in mind, and that was that the College of Agriculture, while important in itself, was only a part of a greater whole and that nothing should be done for the College of Agriculture at the expense of any other part of the University. I've never known of a thing like that being done. I knew that at the legislature some of our supporters, proponents, who wanted something new done in the College of Agriculture, particularly in the Experiment Station, sometimes made the suggestion that that might be done if something else was eliminated from the University's budget. I always opposed that kind of procedure.

WKB: Have you any other comments to make on the budget?
I just want to say this, that the College of Agriculture has been fortunate in gaining, early in its life, the confidence of the people of California. I think the same thing has been true for the whole University. I know of no state university in America where the people of the state support their university better or where there exists more pride in the state university than exists among the people of California in theirs.

Public Relations

Someone had said to me that the growers were particularly interested in experimental work and in Extension work, but that they didn't care a bit about what you taught in resident instruction.

The latter part of your statement is an exaggeration and untrue. True, the great public interest was and still is in the Experiment Station and the Extension Service's activities. Why? Because the Experiment Station has been devoted, ever since Hilgard's experiments, to creating new scientific knowledge for the farmers to use in the struggle with the agriculture problems involved in production. And then, of course, they were interested in the Extension work because the Extension Service was by and large the group in the College of Agriculture that was bringing to them that knowledge, and helping them apply it on their own farms. So it was natural that they should be especially interested in these phases of our work.

Of course, they didn't make many suggestions as to what or how we should teach. They just took it for granted that one of the primary purposes of any university is instruction. And they thought we were doing pretty well because they liked the type of graduates. They liked the experience of their own sons and daughters who had come to the University for their education. They were satisfied.

But they kept urging us all the time to study their problems, like "How can I control this insect?" And if we couldn't tell them they'd say, "Well, it's high time you got busy and studied it and
found out how we can control it." So it's natural that they be interested in the Experiment Station and Extension activities primarily.

But you know how much concern there is about education now among citizens' groups. I wondered if the growers would ever organize, perhaps, to put pressure on you to either have more technical subjects or more humanities.

No. I think they relied on the faculty of the College of Agriculture and the University to do that. Some of the alumni, of course, would make suggestions, and these were generally helpful. I think we were ahead of them in a way. If there has been criticism, and there has been a little, it was that we were getting a bit too "sciencey," as one man put it --- I think I told you the story of the background of how Dr. Hart was selected from our department of veterinary science here to go to Davis and develop the new program in animal husbandry, and one very prominent member of the livestock industry of California said to me one time, "The trouble with George [Dr. Hart] is that he's too 'sciencey,'" and I said, "Well, you just wait a few years, and unless I'm badly mistaken he's going to show to you so clearly that you can't possibly deny it that what you call 'sciencey' is the best thing this College of Agriculture has ever done for the livestock industry of the state."

In summary, my answer to that question is that we recognized the importance of good public relations. It was good for us and for the University for our friends to be speaking to their representatives in the legislature of what the College of Agriculture was doing for them. That was a good thing, it was fruitful, it was useful.

Now I understand that other colleges or divisions of the University now have what are called president's advisory committees, people active in a profession, engineering or medicine or something, appointed by the president to come in and talk with the staff on matters of mutual interest. I have the notion that that idea originated in the College of Agriculture. This was started prior to my administration, indeed in Dean Hunt's time, with the
Agricultural Legislative Committee. Every two years we would have conferences with farmers over the state encouraging them to bring to us their suggestions of problems that were confronting California agriculture. We in turn would tell them what we thought was the way in which we would want to go about studying those problems and, if it was new, what it was going to cost in addition to what we were now doing.

Once in a while we ran across a man who thought his problem was more important than someone else's and would suggest that that be dropped and a study of his problem be undertaken, but those were few and far between. Generally speaking, we were building in those days, and expanding. It meant that if we undertook something new we weren't able always to meet it by stopping something we were already doing because nine times out of ten it was in an entirely different field, and the man we might have been able to release in some department wasn't competent to do the work that involved some other department.

Anyway, all departments were growing, the state was growing, agriculture was growing, so that when we made adjustments in respect to closing up some research project, finishing it, or if it had gone far enough to satisfy ourselves that that further exploration in that particular field and that way was not likely to be fruitful, there was always something else in that same department that that man could be immediately shifted to.

WEB: Did this sort of farmer conference thing take quite a bit of time?

CBH: That's hard to say. It was more or less a continuous thing, but there was a concentration of it every two years in the autumn but just before the legislature met in January.

WEB: How about visiting delegations of farmers? Did you have to spend much time with visiting groups?

CBH: Well, the Extension Service took care of most of that, both out in the field and on the campuses or in the departments. Depending a bit on the magnitude of it, I would be involved.

WEB: This was not a serious problem, large groups of people wanting to call on you?
Oh no, to me they were stimulating because I was eager to have them come, because I thought that was evidence that they were interested in what we were doing. Over the years the criticism that came to the College of Agriculture was seldom of what we were doing but "Why in the devil don't you do some more for us?"

I've read criticism that the reports put out by the College of Agriculture were too technical and that they alienated farmers from the College of Agriculture. Even back in the 1920s there were these complaints.

If that was true in California it was just as true elsewhere in the United States. I suppose that there were some people who complained that our publications were a bit too technical. That's all right. It just showed that we needed to do a better job in publications. When that was fully recognized the University organized the Agricultural Information Service and made considerable strides along those lines. After all, the best scientist is not always the best writer. His primary job is to discover the truth and state it accurately.

Certainly he's not a professional writer.

No, and he shouldn't be expected to be. Occasionally you'll find one who can do it, but it's far more important to be a scientist and discover the scientific truth than it is to be able to describe it in a popular way. This had best be left to journalists.

Did you have a writing staff who would rewrite the reports?

Ultimately we did, but that came about, I think, through the development of the University's news service. We had our own publications office, but they were concerned primarily with writing technical bulletins. We had, as I recall, two general forms — technical bulletins on the one hand, "farmers'" bulletins on the other. We also published a scientific journal which Dean Merrill established, called Hilgardia. He called it a journal of agricultural science. It was a hodgepodge of everything, from chemistry to economics. While many important facts were recorded in the literature, it was not generally available either to scientists or to farmers. Scientists never looked at it because it covered
everything and therefore it was not regarded by, say, the plant pathologists as a plant pathology journal, although we published some things about plant pathology in it.

I struggled for a long time with publications, and I was one who advocated, and we practice it here, buying space in scientific journals for our scientific papers, which were directed entirely to the scientist in some particular field. My colleagues in the other land grant institutions didn't like that. They would often end their argument by saying, "Well, you out there in California have got a lot of money. You can afford it. We can't. Therefore, you have an advantage because if you pay for an article the editor will take it and give it priority over those that are published by the journal without cost to us."

Well, that never disturbed me much. I didn't want to use it as a means of getting priority, but I took the stand that the University of California could not expect the Journal of Genetics or the Journal of Animal Science to publish the results of its scientific work, because the only income those journals had was from the memberships fees of scientists all over the country, including our own. And I saw nothing wrong, in fact, I saw everything right, in the institution paying for the cost of publishing the results of its own scientific work. We did it in our own journal, we paid the whole cost, and it cost us more to publish in our own journal with a far more limited audience than it would to publish in one of these regular scientific journals which reached the audience that the article was aimed at. I don't know what is now being done, but that was my policy.

Then out of those articles if there was something of direct value and importance to the farmers of California either the author himself or more often a journalist could pick that up and prepare a popular leaflet article for distribution, or even an abridged edition of a monograph.

WKB: Did you prepare technical bulletins that were mainly for Extension?

CBH: Yes, the Extension people had their own series of leaflets and materials for their own use.
KB: Then did you have more popular versions for them to distribute to the farmers?

CBH: Yes. We used the Extension Service for distributing all of our bulletins, even technical bulletins, because in California many farmers are competent to read, digest, and use technical bulletins. So if a farmer wants a technical bulletin or reprint of a journal paper he should have it.

KB: I've heard Henry Schacht's name mentioned in this regard. Is he the one that did this journalistic writing?

CBH: Well, he was on our staff for several years. He's now in radio.

KB: I know; I hear him on the radio every noon. He comes on in the morning too, doesn't he?

CBH: Well, he gets up too early for me.

Yes, we've had close contacts with the broadcasting people, and I suppose now television. Television was just coming into use in agricultural education when I retired. I don't know how extensively it's used now. But all mass media of communication have their place in any college of agriculture.
THE AGRICULTURAL EXPERIMENT STATION

Early Background

WKB: We come now to the Agricultural Experiment Station.

CBH: Let's talk first about the Agricultural Experiment Station, and then we can discuss field stations. We'll start with the most distinguished dean of the College of Agriculture that the University has had, the first one, Professor Eugene W. Hilgard. He had, like many of his contemporaries, along about the middle of the decade of the 1870s, begun to conduct some agricultural experiments. The first one, to my knowledge, was conducted on the ground on which the present Agriculture, Hilgard, and Giannini halls stand. It might have extended down into the slope there below those buildings toward the city.

WKB: It's hard to imagine.

CBH: Yes. And I'm told that experiment was designed to determine what effect the depth of plowing of the soil had upon the yield of wheat. The University of California's Agricultural Experiment Station was an outgrowth of those first experiments that Hilgard conducted. And California vies with Connecticut as to which was the first agricultural experiment station established in these United States. The record is not too clear, but we do know that here in California agricultural experiments were under way by 1875.

WKB: Did this set the precedent for attaching an experiment station to the Land Grant College Act?

CBH: Yes, these, the two I mentioned, plus perhaps some others that had gotten started, were the forerunners and perhaps the germinal idea that resulted in the Congress of the United States enacting the legislation called the Hatch Act. It gets its name from Congressman Hatch from Missouri who introduced legislation into the Congress to establish in each of the land grant colleges which had been established, you see, by the Morrill Act of 1862, an agricultural experiment station to conduct experiments in agriculture and related
sciences. That act was passed by the Congress in 1887.

Agricultural experiments had been conducted by the land grant colleges and also by a series of agencies in the United States, particularly active in the eastern states, known as state agricultural societies. These were even the forerunners of the land grant colleges, because they held demonstrations, had group meetings with lectures on improved methods of agriculture, and their membership was made up of farmers who were interested in promoting better agriculture in America. We had one here in California for a long time, and it has two successors. The Agriculture Society of California, which was established in the late 1850s, conducted the state fair. The original charter of the University provided that the president of that society should be ex officio a regent of the University. And they also at the same time provided that the chairman of the Mechanics Institute of San Francisco would also be a member. That provision still exists.

The Agricultural Society, in addition to running the state fair, held farmers' institutes and public meetings and discussions of various matters of interest to agriculture. Later on after the College of Agriculture and the Agricultural Experiment Station got started the Agricultural Society did very little if anything more than manage the state fair.

And somewhere along the line the legislature modified the organic act establishing the University to the extent that a state board of agriculture was created, and the president of the state board of agriculture, not of the old Agricultural Society, became ex officio the regent. Mining and engineering and agriculture, the things that were emphasized in the Land Grant College Act, still have special representation on the board of regents of the University.

And still later on the term Agricultural Society was abandoned, publicly at least. The state fair board of directors were the — that was the body which was created by the legislature to manage the state fair.

WKB: The Agricultural Society encouraged experimentation in agriculture, did they not?
Yes, and they encouraged good farming. They offered prizes for the best-conducted farm; and one of the prize farms recognized by that old California Agricultural Society was the Jerome Davis farm at the edge of the little town of Davisville which was ultimately purchased by the regents to form the University Farm at Davis.

The agricultural experiment stations were established then by the Congress, and the original Hatch Act provided for an appropriation from the federal treasury of $15,000 per annum to each state agricultural experiment station organized. And, of course, they've been organized now in every state, and every one of those agricultural experiment stations still receives every year, under the Hatch Act, $15,000. It's been operating since 1887.

There has been subsequent legislation appropriating additional funds from the federal treasury to the experiment stations. First was the Adams Act, which came along about 1906, which again made an appropriation to each state experiment station of $15,000. Then the Purnell Act came along in the mid-twenties.

Was that the act which permitted them for the first time to include agricultural economics in their research?

Yes. The Hatch Act is very broad but certainly the writers of the Hatch Act were thinking in terms of the physical sciences. The same thing is true of the Adams Act. It differs from the Hatch Act only in that it emphasizes original and basic research, and for the first time set up a mechanism in the United States Department of Agriculture first known as the Office of Experiment Stations whose job was, among other things, to approve projects proposed by the various state experiment stations before those stations could expend the Adams funds. Nobody ever had to approve the Hatch Act funds.

Uses of Federal and State Funds

The Adams money expenditure has to be approved by the federal agency?

Yes, but right at that point let me say the state experiment stations still have the full responsibility of determining how they are
CBH: going to use it. The Washington office approves or disapproves, but it doesn't tell us how —

WB: They don't initiate, is that right? They only approve or disapprove.

CBH: Yes, they don't initiate.

WB: Do they come around and investigate if this money is being rightfully used —

CBH: Oh yes, every year.

WB: — or do they just approve in general what you're doing?

CBH: They approve projects for the use of the Adams fund, and this is true now for all other funds that have come subsequent to the Adams Act, including the Purnell Act and the Bankhead-Jones Act, and all the others that have come on. Each experiment station proposes a program of research they intend to carry on in the following year with the funds appropriated by the Congress under the provisions of these acts. Those proposals must go to Washington in the latter part of a given fiscal year, the spring, we'll say, and be approved by that office before we can begin to spend the money on the first of July, the next fiscal year.

WB: Does this include a specific budget?

CBH: Yes.

WB: You have to account for every penny.

CBH: Well, every penny spent must have been used in support of some approved project.

WB: Did they ever disapprove of a part of the budget, or do they just approve or disapprove of the whole thing?

CBH: I've heard of cases, not in California, where they disapproved of the specific projects and occasionally the whole program.

WB: Did they ever come down and say, "You're paying too much for this specialist," or "This is too much money on equipment," in detail; do they disapprove one item?

CBH: Well, I've never known of the Office of Experiment Stations ever questioning the salaries that were paid to the men. If federal moneys were used for equipment they required assurance that the equipment was needed and pertained to some approved project. Here
in California -- by the time I came along in 1930 the state had increased substantially its support for agricultural research, not like it's doing today, but nevertheless well, so instead of bothering with all the details of every little expenditure to be reported to Washington, I formed the plan of using all federal moneys on salaries. I would submit to Washington a project that Professor Jones was going to work on this year. Now, Professor Jones frequently had some teaching duties. Therefore, I couldn't use federal moneys appropriated for research to pay his salary while he taught. So I would estimate with him, as best we could, about what percentage of his total time during the year, including the summer when he wasn't teaching, what percentage of his total time would be devoted to this project. And I'd charge that percentage of his total salary against this project, you see. Then I also had to be careful to be able to say to Washington people, "Professor Jones is going to have so many more dollars from state appropriations with which to buy equipment, hire assistants, or help, on this."

So Washington knew, in approving that project, that Professor Jones had other and sufficient moneys, though relatively speaking nobody ever has sufficient money to work with to do the job. There was no sense in using federal money to pay even a portion of his salary if he didn't have other money to provide equipment and assistants and other facilities that he needed.

So we never had any trouble. I served as director of the Experiment Stations for eighteen or twenty years and I've never had a program disapproved by the Office of Experiment Stations. But I know of other experiment stations in these United States that did have programs disapproved. And once in a while the situation would get so acute that federal funds were just withheld because Congress charged that office with seeing to it that this money was expended for the purposes for which it was appropriated. The larger experiment stations have never had any difficulty. Usually the trouble arose in the small states, small from the standpoint that the state was poor and it didn't provide state money to supplement federal funds.

The Hatch Act, the Adams Act, the Furnell Act, distributed the
same amount of money to each state. Rhode Island got the same amount of money as California in all those acts. In later years Congress has taken another look at this thing and has introduced two other factors into the formula for distribution of these funds, population -- the moneys have been distributed on the basis of the state rural population in some cases and in others on the basis of the state's farm population, because the bureau of the census distinguishes between rural population and farm population.

WKB: Rural includes the smaller towns?

CBH: Yes, rural includes the towns up to 2500 in population. Farm is actually the people living on the land. The ratio which the state rural or farm population bears to the nationwide rural and/or farm population determined how much money would be allotted out of whatever appropriation the Congress made under these acts to each state.

And then they introduced in the matter of matching funds. The more recent acts of Congress in this respect have set aside a certain minimum to each state, and then the rest of it is distributed, not only on population but also on the state's willingness and ability to match dollar for dollar of it. So that has forced the states, you see, to put more of their own money in it. Now, that has never bothered California. California has always --

WKB: California far more than matches.

CBH: Oh yes, right from the beginning. There's never been any question about that. But some of the poor states -- the state of Nevada, and in the South -- have had some problems, but there's no reason why any state couldn't meet this requirement. And I suppose today all of them do.

WKB: I imagine you had problems about dividing up the research funds available between applied or production research and basic research that might go on over a long span of time.

CBH: Yes, that has always been true and I suppose it is still true. But the University of California has been able over the decades to greatly enlarge its basic research, and at the same time has had facilities and manpower of sufficient magnitude to meet most of the
immediate, pressing production problems. And after all, much of what I call basic research has in a few years become applied research. The results are applied and involved in production. Some of the things that we are speaking of in animal husbandry, rather basic in nature, almost immediately found application.

There no basic research, let's say, that I know of in the field of agriculture, that you could compare to the recent discoveries in nuclear physics, because that's been revolutionary. But we've seized upon those discoveries. There are many things in basic science that we are applying now. For example, we're using isotopes in animal and plant nutrition and animal and plant physiology, and many other ways. These new basic discoveries have created a whole new set of tools for the people who are working in the agricultural sciences, as it happened in medicine.

Well, we were talking a moment ago about the application of science. I think it's fair to say that in my time, and I had a very small role in the early applications, that the science of genetics through hybrid corn has made one of the greatest contributions that agricultural research has made to American agriculture, by applying well-established genetic principles to the improvement and to the increasing of the yield of America's principal field crop.

Now, you can find in animal breeding similar applications of genetics, particularly in the poultry industry. We have right down here at Niles one of the most successful poultry breeders in the United States, made a lot of money in it, the John Kimber Poultry Farms. Mr. Kimber has worked with our people in poultry, our geneticists, for many years. He now has a staff of geneticists of his own working right down there in his own yards, pens, and laboratories. And he's made it pay because he's accumulated more than the average man's share of wealth in this state and nation.

WKB: Is this research that's approved by the federal government supposed to be research that will be valuable to the nation, or can it be very local in its value?
Theoretically it is supposed to be applicable broadly. Practically, I suppose one would have to say that in some states the Office of Experiment Stations hasn't enforced that provision too rigidly. But here is another thing that I was able to do in California. I used federal funds for the most basic of our researches.

WKB: And I suppose that would be the research that would be more difficult to get state appropriations for.

CBH: You're quite right. It's more difficult to get state appropriations for that. You can usually get state appropriations even in the poorer states for things that are what I call pot-boilers and probably problems of immediate consequence.

That was one time well illustrated to me by the director of the Office of Experiment Stations in the Department of Agriculture on one of his visits to us when he said that many of these states -- take entomology for example -- many of the states are struggling to find answers to how to control some insect that is now prevailing in that state and causing damage to the crops grown this year. He said, "You in California are well enough supported that you can be thinking of the possibility of some insect showing up ten years from now, and plan some research to determine what you are going to do about it when it comes."

By that he meant we were able to direct much of our research activities to long-time basic investigations which would be helpful next year or in ten years or fifteen years, while so many states were so pressed for lack of staff, lack of support, lack of facilities, that they were struggling to scrape together every dollar they could to try to find out what they're going to do to that insect next year. He's already there, causing damage today.

WKB: It sounds like a very good set-up, this federal funds and state funds and the way you were able to juggle the money which other states couldn't do.

CBH: Well most of the large experiment stations, the better ones, could do exactly what I did, and several did. Cornell, for example, the New York State Agricultural Experiment Station, Wisconsin, Minnesota, Illinois, all have done to a greater or lesser degree
CBH: exactly what we did here in California because those states, relatively speaking, have supported their experiment stations well. Ours was the best supported. Before I got through building it it was the largest; probably still is, for that matter, I don't know, but I would think so because California is still the leading agricultural state in the Union when you measure it in terms of the value of crops and animals produced each year, and California's agriculture is the most diverse of any state.

WBK: How much control does the state legislature try to exercise over the expenditure of state funds?

CBH: None actually, although they control the amount of University appropriations.

WBK: They just give you a flat appropriation.

CBH: The moneys derived from the state of California that are allocated to the College of Agriculture for use in research come from the regents of the University in the University's total appropriation. Now, in preparing the budget requests to the legislature the University goes into considerable detail in explaining to them how we propose to use these annual appropriations.

The only time that the legislature has shown, let's say, more than usual interest in support for the College of Agriculture -- it has always been interested or they wouldn't have continued to support the University in this -- was right after the war. You know that science got a great boost during the war because science, particularly physical sciences, entered into and contributed so much to war measures, far more in World War II than in any previous war.

So that interest in research got over into agriculture, and our governor at that time, Mr. Warren, became very much interested. True, he was stimulated quite a bit by the California Farm Bureau which always believed in research in agriculture. They appealed to the governor to do something special for the Agricultural Experiment Station, and I certainly didn't throw any hurdles in the way. I might be accused also of a little stimulation, but the stimulation went a little too far before I got through with it because I think the governor was led to believe that if he could just
get the legislature to appropriate a large sum of money the College of Agriculture could solve all of the state's agricultural problems in a short time.

Overconfidence in science.

Yes, I think it was perhaps a little overconfidence in science on his part. And the hardest problem that I had in all of the period of my activity in the University resulted from the fact that on one July the first -- the war was over in 1945, wasn't it? -- it was either July 1946 or 1947, I had $2,000,000 more to use that year than I had the year before. And that was a tremendous task. I would much have preferred to have had $500,000 more that year, and the next year another $500,000, with the total increase spread over three or four years. I think I could have done a little better job than I did in expending it.

When you get some money in a certain year you practically have to start spending it immediately, don't you? You can't just put it in a fund until you have a project ready to go?

No, for some reason or other legislatures and the Congress don't like to build up reserves. And those of us who try to do so soon realize that. Now, I think this sometimes goes too far. One thing which we never did here, which I'm told happens in Washington about the first of June, was balancing the books and seeing how much we've got left and immediately turning around and spending it for something. We never did that. Here's another reason why agriculture, if it's going to amount to anything, has got to be a part of a great university. Our extra moneys did not revert to the state, they reverted to the University treasury.

Was there any little snooping by the legislature?

No, no. I don't know what legislative committees have visited the president or the comptroller or the vice-president of business affairs to inquire into matters. I was never concerned with that, but I've never known of a legislator coming around to my office or to any department in the College of Agriculture doing what you implied -- snooping.

Well, once in a while maybe -- this happened particularly in
the depression when everybody was poor -- some people, not the legislators, but our farmer friends, occasionally thought we were paying too high salaries. They felt we should cut salaries because their income had been cut. And we did one year, not because of their attitude but because we had to. The University's income was greatly reduced. But we began to build up again the next biennium.

WKB: I looked at some of those salary schedules and they looked pitifully low for nowadays.

CBH: Oh, they weren't too bad in those days. The general price level was much lower then.

WKB: Professors: $4800 --

CBH: Sure.


CBH: My first professorial salary was, I think, $2500; full professor I got maybe $2600. And when I received $3000 as a full professor at Cornell -- that was the first salary that I had there, in 1916 -- I had more money in those days than I have now. Relatively speaking I had a better household budget than I have now. Well, I'm retired now, but let's say during the last few years of my active service here prices are and have gone up so high, you see. So don't feel too sorry for men of my generation who did their university work and raised families on salaries such as you have mentioned.

Let me hasten to say, though, something that you already know: society has always been unwilling to pay adequate salaries, first to the ministry, second to the schoolteachers. Society just does not pay incomes for that kind of service as they are willing to pay to a doctor, a lawyer, to an engineer, and certainly in the business world society provides for much better income. Yet some of us are just crazy enough to still stick to university work. I wouldn't change it, I'm sure, if I had it to do over again, because I've had a lot of fun, not much money but all I wanted personally. I'd like to have had a little more for my dependents, but I don't know if they would have been any better off even if I had.
Well, you've certainly had the fun of managing a lot of money. Now, did the Office of Experiment Stations take any concern with the personnel you appointed for these various projects?

CBH: No. Each experiment station has full responsibility for selecting its own personnel and for paying its own salaries. The office has never dabbled in anything like that. They did everything that they could to encourage us because they knew as well as some of the rest of us that it is not good economy in any public institution to be satisfied with anything less than first-rate people.

Now, some institutions were unable to get their salaries up to a point where they could compete with the better institutions for personnel, but California has never been in that position. Our salaries, to the best of my knowledge, and certainly during that period that I was in there, were such that we never lost a man that we wanted to keep except in a few cases where not the salary but other factors offered that individual a better opportunity elsewhere than here. And when I was convinced that another institution had a better future opportunity for a member of my staff, I never tried to hold him by raising his salary and making his problem that much harder to settle.

Uses of Funds from Private Industries

WKB: Did you work with private industry sometimes in solving a problem? Would they, say the growers of a certain crop, give you money to help solve some of their specific problems?

CBH: Yes. Over the years we have been able to supplement to an increasing degree our regular sources of income, namely federal and state appropriations, by grants from particularly industries, like the petroleum and chemical industries, manufacturers of insecticides, fungicides, herbicides, fertilizers, and to some degree even those who manufacture supplements for livestock feeding, the feed industry -- grants for studying the role of some of their products in California agriculture, and sometimes even to make
basic studies of no immediate application.

Those grants were made to us with the understanding that we would utilize the funds to supplement our own, and occasionally to start to new project, a new study, provided — we always had this provision, a clear understanding — that we would use this money as we determined best. We would agree to work on some particular problem that the donor was interested in, but that we would do it our way and were free to publish the results in the same way we would publish results on work supported by our own public funds.

A trade organization in the sugar field granted funds to Professor Hoagland and his staff for many years to study the structure of the sugar molecule and how sugar is formed in plants, because we had a very important problem here in California among the sugar beet growers. Certain years you'd get a very large tonnage of beets but with a low sugar content, and how do you solve that? Was there any means by which we could increase the sugar content of beets, and much work has been done along those lines. There are other illustrations I could mention, but over the years there has been an increasing amount of money coming to the College of Agriculture in that way.

May I say that one of my predecessors, Dr. Hunt, was opposed to such grants. He didn't like to accept any money from a fertilizer company because he felt that would place the college under obligation in some way to the company. I never felt that way about it. I made it perfectly clear to these people that we were not going to accept their money to prove something was true that they wanted to be proved true. That didn't interest us at all, but if there was a problem there that they didn't know the answer to and we were interested in it and the farmers were interested in it, we would take their money.

Here is a good illustration that I think will illuminate that philosophy. It was in the early forties, during or immediately following the war, that the Shell Development Company, which is
the research subsidiary of the Shell Oil Company with a laboratory
donv here in Emeryville, asked Professor Warren P. Tufts of Davis
if he would be willing to take a leave of absence and help them
locate some place in the Sacramento or San Joaquin Valley a piece
of land that would be suitable for a new laboratory, whose broad
purpose would be to discover ways and means of using petroleum
products in California agriculture, for insecticides, fungicides,
maybe even fertilizers. Tufts came to me and he said, "They've
asked me to do this but I don't want to take a leave of absence to
do it. What do you suggest I do?" Well, we talked the matter over
further. Finally I hit upon this idea. I said, "You ask some of
these people to come over and see me." They did so and I said to
them, "Now, Professor Tufts is busy. He just doesn't feel that
he can afford to, from the standpoint of his work" -- they would
have paid him well, it wasn't money, he just didn't want to leave
his work -- "do this for you. But I've got even a better idea.
I'll set up a committee, of which Professor Tufts will be a mem-
ber because he's chairman of our department of pomology that deals
with deciduous fruit trees. But," I said, "there's a lot more
agriculture in California than just fruit trees and you're going
to be concerned with other crops in this new laboratory and field
station. You'll want to grow some grapes down there, won't you?"
"Yes."
"You'll be dealing with vegetable crops, won't you?"
"Yes."
"You're going to have to irrigate them, won't you?"
"Yes."
"And they are all going to grow in soil, aren't they?"
"Yes."
"Well," I said, "if I had your job I would try to get to-
gether a group of experts. I'd take Tufts for tree crops, Pro-
fessor Veihmeyer, who's our leading irriation authority. I'd
take Professor Knott for vegetable crops. I'd take Winkler for
viticulture." And I forget who I suggested on soils. There was
a committee of five.
I said, "You narrow this thing down. Use your own people because there are a lot of factors, other than just the agricultural aspect, that are going to govern your selection of the site. You narrow the various sites you've been thinking about down to half a dozen, say, and I'll set up this committee and they'll go around and carefully investigate each of those half a dozen or so sites, and pick out the best one for you. They'll add it all up. They'll have to weigh one factor against the other because one site will be favored maybe by the soil. Others will have better water supplies. Others will have some other advantage. They'll have to try to help you select the one best site."

All right. They did so, and they picked a site near Modesto. Well, the Shell people were very much pleased, so they put on a nice luncheon for us, myself and the committee, over at the Bohemian Club one day. And afterwards we sat around the table chatting, and one of them looked across the table at me and he said, "Dean, I want to ask you a question. Now understand that myself and my colleagues here are most grateful to you for what you have done for us. We appreciate it deeply. But why in hell did you do it?"

"Well," I said, "gentlemen, it's a very simple thing. You tell me that the primary purpose of this laboratory is to discover uses of petroleum products in California agriculture, and I assume that as a business organization you will want to sell these products which you are going to manufacture to California farmers. Well, I want to be certain that the California farmer is going to get his money's worth, that you are going to sell him something that he really can afford to buy and make a profit on."

The next day one of the members came over and handed me a check payable to the regents of the University of California for $5,000. He said, "Now Dean, you use this in any way you wish for something you want to do for the College of Agriculture. I think this is a good illustration of what I tried to do over the years, develop the confidence, the cooperation, of business people, but not at the expense of farmers. My basic interest
CBH: was to see that farmers got their money's worth from the use of such products.

Now, Dean Hunt was afraid that if the staff got working with the fertilizer people that maybe they would be selling to farmers what wasn't so good. And goodness, in those days there were plenty of fertilizer companies doing that, but we were able to gain, over the years, the confidence of the fertilizer people on a straightforward, forthright basis that we weren't going to endorse anything that wasn't all right. As a result, the Fertilizer Association of California has for many years made grants to us for studying their problems, and it has been good for them, good for the people, the farmers, and good for the University.

Patents

WKB: Suppose that in studying something like the use of fertilizers, or sugar beet machinery, something was discovered that could be patented. What would you do about the patent problem?

CBH: In one case, the U.S. Beet Sugar Association, which made a very substantial grant to the Davis department of agricultural engineering to study beet-harvesting machinery, we agreed that all patent rights would be retained by the association. We later devised a plan whereby those ideas that came from the University that were patentable belonged to the University or to the individual or to both. When we first started out on these things the University had no very definite patent policy. Over the years it has worked out one. And I think now both the University and the individual benefit from it. Prior to that time a professor who developed a new vaccine or serum would patent it himself, and it was only his judgment and the administration's as to how it was to be handled.

I well remember one thing up at Davis developed by Dr. Hart and two of his colleagues. They patented it themselves and profited themselves by it for a few years — the income wasn't great. Then they made an agreement to turn the thing over to the University.
CBH: I recall another case with respect to a vaccine where the individual patented it himself. He contracted with the Cutter Laboratory to manufacture it, and he and his department together with myself worked out a plan whereby all of the royalties from the sale of that vaccine in the state of California came to the University and he kept the royalties from sales outside the state. So there have been various schemes over the years. What the current policy is, I don't know.

WKB: But usually the money went to the individual or the University, or it was shared, but it didn't go to any of the industries that might have paid for the research?

CBH: I wouldn't be positive, but in some cases it seemed wise to have the industry retain the patent, but I'm sure that in the majority of the cases it was either to the individual or to the University or to both, and during my period it was preferably the University. I think there had been general acceptance of this throughout the University. The reason for that was that we didn't want to develop a faculty of inventors, or stimulate people to do research on problems only that they thought might some day yield patent ideas.

Cooperation Between the United States Department of Agriculture and the Agricultural Experiment Station

WKB: The U.S. Department of Agriculture has other functions than research. Would they expect your people to do regulatory work or any of their other work?

CBH: No.

WKB: Did you have to cooperate with them?

CBH: All right, let's talk about that. That's interesting. Yes, the U.S. Department of Agriculture has many things to do, in two of which the land grant colleges cooperate -- education and research. The federal funds appropriated by the Congress for allocation to
the states for research and extension work are administered by and come through the Department of Agriculture. The only difference is that the Agricultural Extension Act prescribes in itself cooperation. It is called the Cooperative Extension Service of the United States Department of Agriculture and Land Grant Colleges. The letterheads that they use are Cooperative Extension Service, and those we use in California indicate the cooperation is between the U.S. Department of Agriculture and the University of California. In Nevada it's between the U.S. Department of Agriculture and the University of Nevada. The same all over the country. So extension work in the land grant colleges is carried on in cooperation with the U.S. Department of Agriculture. The department has a staff of extension specialists who visit the various states and cooperate in extension activities with state university extension specialists.

WKB: You mean the USDA has its own personnel?

CSH: Yes. Illustrating this, the USDA poultry extension specialist's work is to come in and work with the university's poultry extension specialist. The department appoints its own staff. Usually over the years they get their staff from the states. Sometimes they take them away from the states by paying them a little better salary. For some people it seems a little more prestige comes with being a federal employee than a university employee. They took one of our men, a specialist in poultry extension, once.

Now on the other hand, in the experiment station there is no formal legally prescribed plan of cooperation. There is a lot of cooperation, to be sure, but it's done voluntarily. For example, here in California I suppose on all of the campuses we have federal employees stationed from time to time whose salaries are paid by the USDA and whose funds for equipment and travel are provided by Washington. They work right in a department of ours just like any other member of the department. And that type of cooperation has been developed all over the country, and I think has worked well, except sometimes you get people who don't click, you know. Even in marriage divorces occur from time to time.
WKB: Personality clashes?

CBH: Yes. We've had a few in California, but usually the higher-ups in Washington discover it even as we do, and once in a while they may move their people, send someone else instead. And I suppose sometimes they just don't replace them. When a state experiment station -- this never bothered California, but some other states -- lost a federal employee, it was just like losing a regular member of the staff, and the director of the experiment station would take it pretty seriously. He'd do everything possible to get these two people to work together, settle their petty differences, and get on to work together, because it meant that the work in his state was going to be restricted if Washington took this man away from him. And that would be particularly true if the state man was at fault in the squabble.

WKB: The U.S. Office of Experiment Stations have their own offices separate from the states?

CBH: Not the Office of Experiment Stations, but the U.S. Department of Agriculture did, yes. Oh yes, they've had over the years quite a number of what you would call federal experiment stations scattered around in the states. Now, there are two reasons for that. One was that the states in the early days were particularly poor -- especially here in the West and the South, you know -- and the congressman from some district would introduce legislation to establish in his state and in his district a federal experiment station to do various things. Not all were alike. Some were devoted to animal science, some to horticulture, some to agronomy, field crops, various things. And sometimes a congressman would do it because he didn't like the director of the state experiment station, didn't have confidence in him. And he wanted to bring home some bacon for his constituents.

Now in the last ten or fifteen years there's been a serious attempt on the part of the U.S. Department of Agriculture to turn over these little stations to the states. Sometimes they've been accepted by the state; sometimes they've just sort of dried up and gone out of existence.
That would mean that the state would have to support them.

Yes, when they were taken over, and if they fitted into the state's program, they would generally take them over because there were usually land and buildings and facilities there to be used.

We've had this in this state. What I am thinking of particularly is the cotton experiment station at Shafter. Well, that was established by the bureau of plant industry many years ago when cotton was first introduced into the state of California, to work on cotton, to improve by breeding methods the cotton varieties grown in California. It's made an important contribution.

This was a U.S. station.

A U.S. station. We were offered that station before I retired, and I sort of dragged my feet, not because I didn't believe in it, but California pays an awful lot of federal income tax. Here was an important thing already going and the staff and our staff were working harmoniously together and worked fine. An association of farmers bought the land and put up the buildings and so forth, and we were using those. And I remember a few years ago we needed some more land and they went out and bought an adjoining piece of land.

The private farmers?

The farmers did, yes. So I didn't see anything to be gained other than more expense to the University of California if I took the thing over, so I just kind of dragged my feet and more or less declined to do it. I don't know whether they have taken it over now or not, but in my time if we had taken it over we would have lost whatever money the federal government was putting into it and we would have had to replace that with state funds.

So I never objected to the federal government working in California. With a few exceptions, our relations have been good. In some states the relationship between the state institution and the federal Department of Agriculture, either in the bureaus or in the Office of Experiment Stations, maybe wasn't as cordial and as well-defined as it was here. But I've never had any insurmountable difficulty.
I believe in cooperation of the right sort between the University of California and the U.S. Department of Agriculture. Now I realize that that can be no better than the cooperation that can be developed between individuals. You can't force cooperation on anyone, and I've had plenty of demonstrations of this, not only between our College of Agriculture and the U.S. Department of Agriculture, but between departments and even individuals in the college.

I guess both of these men have retired, so I can tell this story. Professor Hendriksen in pomology at Davis and Professor Veihmeyer in irrigation conducted most of their life work in this University working together, so much so that Professor H.S. Reed one time said to me, "When I think of Veihmeyer and Hendriksen I think of ham and eggs. They just go together." Nobody told those men they had to work together. They just decided themselves they wanted to work together, and it was a very effective team. Now an administrator couldn't concoct another dish of ham and eggs, just of his own free will and accord by picking out Mr. Egg and Mr. Ham and saying, "Now, hereafter, you've got to get in the skillet together." That won't work. But when you discover that Mr. Ham and Mr. Egg would like to work together then you can do an awful lot in encouraging them and helping them to work together.

You can write a treaty, as I used to call these memorandums of understanding that we used to have to prepare, have to sign here, because Congress insisted that the U.S.D.A. do it. And I maintained and I still do that they are no good if the people concerned don't want to work together. The memorandum of understanding was good in the same sense as writing out a research project is good because it forces the individual to clarify his thinking to a point where he can set it down on paper, know at least what he's going to do this year and what the next steps are going to be next year, provided he finds out something this year. So I don't criticize memorandums of understanding or project outlines, and so forth. This might be a good time to tell you a story about experiment station project outlines.
When the Adams Act was first established, that was the first attempt on the part of the U.S.D.A. to have projects, research projects. Now it's common practice, but that was new in those days, and to some directors of experiment stations it sounded maybe a bit foolish. I well remember in my younger days sitting in on a discussion of this matter in the agricultural experiment station section of the Land Grant College Association's annual convention and hearing Eugene Davenport, dean of the college of agriculture and director of the agricultural experiment station of the University of Illinois, in his time one of the outstanding deans and directors of this nation, after the debating had gone back and forth rising to say, "But gentlemen, under which project did Darwin work?"

Anyway, we now have to have a little more control of these things since we're dealing with public funds. And now we accept project outlines and recognize their usefulness. But you can carry them a little too far.

WKB: Well, you can spend half your year writing up your project.

CBH: That's right, and especially in reporting on it. When I first came to the University of California the old system that Dean Hunt or somebody designed to be used in the Experiment Station called for a monthly report from the men that were working on research projects. I quietly eliminated it later on.

WKB: Too much time writing the report?

CBH: Surely, and nothing to be gained by it. I do think that every so often, certainly once a year, a researcher ought to take stock of himself. And if he's a good man he's taking stock all along and he knows where he's going. Why ask him to spend an hour, even, in writing out something for the director of the experiment station just to read once and then put in the files and forget about?

WKB: You said you can't force cooperation, but sometimes administrative set-ups are arranged so that cooperation is easier and sometimes it is more difficult.

CBH: That's right, and that's the thought I had in mind a moment ago when I said the administrator can foster it, can set up his administrative procedures in such a way as to stimulate and foster cooperation.
WKB: Well, is it easy for the Office of the Experiment Stations or the USDA to work with the state experiment stations, or does that take a lot of getting around rules and unofficial actions and so on to make it possible?

CBH: Oh no. You see, the Land Grant College Act of 1862 was passed in the same year and by the same Congress that established the USDA. So there has always been, right from the beginning, close cooperation with the secretary of agriculture and his staff.

Now we've quarreled with some secretaries from time to time, and there've been little periods of difficulty. Some secretaries have thought less of land grant colleges than others have, and some have thought more. We've gained the confidence of some secretaries more than we have others. But over the years there have been many evidences of warm, helpful cooperative undertakings for the good of American agriculture.

WKB: I was wondering what kind of conflicts came up between these people under the U.S. or the state. Did they argue who was in charge or exactly what should be done day by day?

CBH: No, I think I would say the main sources have been personalities. That certainly is true when you get down to the staff. Some secretaries of agriculture have felt that the Department of Agriculture was the great friend of the American farmer and that colleges shouldn't have much to do in the field of agricultural policy. Some would try to build a greater empire in Washington than others.

WKB: In other words, trying to win the loyalty of the rural people was one of the problems.

CBH: Yes, and some have not been averse maybe to think of it in political terms.

WKB: Oh, I'm sure that's a factor. Then they wouldn't want too much credit to go to the college?

CBH: Yes, that would be all right provided a little more credit came to the USDA. If you believe in big centralized government, don't you see, you'd want it all to flow into Washington, all this support. But some of us believe in states' rights pretty strongly, and believe also that the best government is that which is closest to the people.
Cooperation Between the State Department of Agriculture and the Agricultural Experiment Station and Extension Service

CBH: Before I forget it, there's one other point I might make today. You spoke about agricultural regulatory and control work. Nationally this is also a function of the USDA. In its educational work, extension, research, the department cooperates with the colleges of agriculture. In control work it cooperates with the state departments of agriculture, for generally the responsibility for control work in the various states rests with these state departments, not with the college.

Now, in some states it's mixed a little. Here in California at one time the Agricultural Experiment Station was charged by the legislature of California with a lot of control work, but over the years we gradually got those functions transferred to the California state department of agriculture at Sacramento. Starting with Dean Hunt and Dr. George Hecke, the first director of California's department of agriculture, we've worked out, finally, a good division of labor in the field of agriculture in California between the College of Agriculture and the state department, in which the college assumes responsibility for education and research, and the department for regulation and control.

It took several years to do this. And in a few cases we had some disturbances for a while. I remember during my time a new director of the state department of agriculture was appointed, and he just didn't want to be exclusively a policeman. He wanted to be a teacher and he wanted the department of agriculture to do some educational work, despite the fact that that would be a duplication of the teaching work which the University was doing through the Agricultural Extension Service and a violation of the agreed-upon division of labor which I have mentioned. And it took us a few months and ultimately the help of the state board of agriculture, one of whose functions is to advise the governor and his director of agriculture on agricultural matters, before we got that ironed
out and the governor was persuaded that he had made a bad appointment and needed a new director.

WKB: Who was this?

CSH: Do you want me to mention names here?

WKB: Certainly.

CSH: That was under Governor Rolph's administration, and the director of agriculture concerned was Dudley Moulton. He had been the agricultural commissioner in the county of San Francisco for several years. Now there wasn't much agriculture in San Francisco County even at that time. He had an office in City Hall in San Francisco, and that isn't the best agricultural environment either.

In this connection I should like to record the fact that over the years -- certainly the forty years I have known it -- the California state department of agriculture has been singularly free from political influences, and that, in my opinion, is why in competency of staff and sound administrative procedure it has few equals and no superiors in its field in the United States. That department came into being during the latter part of the second decade of this century, right after World War I. Prior to that, California had any number of separate agricultural commissions scattered around, dealing with various agricultural matters, operating individually, administering several laws for regulatory purposes, and doing varying amounts of education and research. This work was all pulled together to form the department of agriculture, and Mr. G.H. Hecke -- an expert in viticulture and the executive officer of the viticulture commission -- was chosen by the governor as the first director of agriculture. After that, legislation was passed, and the department of agriculture was formed. Mr. Hecke and Dean Hunt worked out this division of labor.

WKB: And their duties now are strictly regulatory and control.

CSH: Yes.

WKB: Now, why didn't the University want to have any part in regulatory and control work? Was it too much more work?

CSH: Not necessarily the work. There is a much more basic reason. This type of thing just doesn't belong in an educational institution.
CBH: You can't be the best teacher and the best policeman at the same time.

WKB: You felt that if you were regulating, the people wouldn't have confidence in you as a teacher.

CBH: That's right. Generally speaking, they are two functions which ought to be separated. We had the opportunity to separate them here and most other states have followed our example. There are still a few cases where for financial reasons the colleges have held onto some of their regulatory work.

A striking example of this that I can think of is in the regulation of quality in fertilizers. State laws in California, as elsewhere, require manufacturers of fertilizers to print on each bag the chemical analysis of the fertilizer contained, so buyers may know what plant food, and the amount, they are buying. Then the enforcing agency, unknown, goes around to warehouses where fertilizers have been bought and temporarily stored for retail sale, let's say, and takes samples, brings them into the laboratory, analyzes them, and publishes the analysis. The agency is authorized to charge the manufacturers the cost of this work -- they sell them labels. The dealer has to put a label on each bag showing that it has been inspected.

WKB: Like a revenue stamp.

CBH: Yes, sort of a revenue stamp. The stamp is there to assure the farmers that this chemical analysis is correct. Well, the agency adds a little extra to the cost of those tags which not only provides income out of which to pay for the chemical analysis of them, but usually the experiment station has a little left over. This program was started in most states in the agricultural experiment station and some of them have held onto it. You can see there is a little temptation here because the institution made a little money out of this procedure to increase its income for research. But in California we got rid of such responsibility.

WKB: You had to get rid of some of those things after you became dean, didn't you?

CBH: Yes, the last one. This was a law still on the statute books of
CBH: California in 1930, which required the director of the Experiment Station to license manufacturers of biologics, vaccines, and sera.

WKB: This is for animals.

CBH: For animals. Now, we had always done this merely by licensing anyone whom the federal bureau of animal industry licensed under a similar federal law. It didn't mean much, but it took a little time each year for a responsibility which didn't really belong in an educational institution. So in the early years of my administration, the first or second, we got the legislature to transfer that responsibility to the state department of agriculture.

WKB: What kind of cooperation was there between the state department of agriculture and the --

CBH: Excellent. Except for this one period of eighteen months, and that was caused by the director and not the staff; there's always been close cooperation, friendly cooperation and good working relations, between the director of the Experiment Station or the dean of the College of Agriculture in my days, and the director of the state department of agriculture, and all down through the staff of both. These good relations were further advanced when Governor Warren appointed the University's chief administrative officer in agriculture -- the dean of the College of Agriculture in my days, now the University dean of agriculture -- to membership on the state board of agriculture.

WKB: Suppose one of your county agents comes across something that wouldn't pass the state regulations. Would he report that to the state department of agriculture?

CBH: He'd be more apt to report it immediately to his counterpart in the county, the agriculture commissioner. You see, each county in the state has, or could have, an agriculture commissioner who is the enforcing officer at the county level of all these laws. In some counties where agriculture looms large both in quantity and kind, the commissioner may have a staff of half a dozen or a dozen or more people. Los Angeles County agriculture commissioner has always had a large staff. He is a county officer -- the counterpart of the farm advisor or the county agent and his staff.
And here this same division of labor of which I have spoken is recognized. The county commissioner has the job of regulatory and control work at the county level; the farm advisor or county agent the responsibility for education.

WKB: I suppose you try to get their offices fairly close together?

CBH: Yes. Some counties have erected buildings which have become their county agricultural center. The county farm advisors and home demonstration agents have their offices in that building, and the county agriculture commissioner and has staff also, plus some federal agricultural agencies such as the soil conservation service, the farm service, the farm credit agencies, and others involved in the agricultural adjustment programs. These agricultural centers are usually at the edge of town, or even farther out in the country until, as has happened in some cases, the town grows up around it and envelops it again.

WKB: Is that usually the farm labor center also?

CBH: Yes. Often the state department of employment has their local offices in these buildings too. In principle the idea is to group in one place, in so far as possible, all service agencies in agriculture.

Field Stations

Imperial Valley Field Station

CBH: Our four primary centers for the Agricultural Experiment Station are at Berkeley, UCLA, Riverside, and Davis, but we also have a number of field stations. I think the oldest one still in existence is the Imperial Valley Field Station at Meloland, located directly east of El Centro, about four miles. That field station was established soon after water for irrigation was brought into the valley from the Colorado River. This was a new farming area, you see, right out on the desert, and there was no other area in the state of California quite like it. Therefore, to be able to advise farmers who were moving into that area what crops to grow,
the University established this field station, and has maintained it up until this time.

For many years it was attached to the department of agronomy and devoted its attention to field crops. At the present time its activities include vegetable crops and some work in animal husbandry. It might well be called a field station for desert agriculture because it is in the desert, has a desert climate, and differs only from much of the rest of the desert in quality of its soil and by reason of the fact that it is irrigated.

Now, Imperial Valley has been developed over many years and is currently one of the richest agricultural areas in the nation. Up until comparatively recent times there has been little rural life, really, i.e., actual farm living in the valley. When I first came to California the farming philosophy was to go into the Imperial Valley, make some money, and get out as quickly as you could. And even farmers who operated down there would often live elsewhere, with merely a farm headquarters, sort of a camp, on their holdings, living rather crudely on the land, sometimes even leaving their families elsewhere.

WKB: Those are quite large ranches down there, aren't they?

CHB: Well, at first they started out with small holdings, because this was public land, I suppose distributed largely by homesteading, but later on they began to consolidate their holdings. Even some of the people who owned title to the land were absentee landlords renting it to larger agricultural operators, you see.

Over the years the primary agricultural industries have become vegetable growing, some grains, sorghums, cotton, and alfalfa, and more recently, although that's been twenty-five years ago, winter flax. This station, conducted by the College of Agriculture, has tested all sorts of crops, and has been responsible for the introduction of many of the current crops grown.

I think one of the most spectacular things that has been done at this field station was the introduction of winter flax. The flax-growing area of the United States prior to this was in the North Central states, principally in the Dakotas and Minnesota.
CBH: Flax is planted in the spring there, and although grown primarily for seed production, the fiber-producing varieties are used, too. Through cooperation with the USDA different varieties and types of flax — seed as well as fiber-producing — were introduced from all over the world and tried out down there. None of them proved very successful. Then one day the superintendent of that field station conceived of the idea of planting a little patch, a small plot of flax, every month in the year, of a seed-producing flax imported from the Punjab in India. He and everybody else was astounded by the growth and yield of the flax on the plot planted along in October or November, in the late autumn or early winter-time. The same thing happened during the next and subsequent years. Soon it attracted so much attention that winter flax has become one of the most important crops grown in the valley. And it's not only grown there, but has spread into the San Joaquin Valley as far as Fresno, and perhaps other areas.

WKB: Is this a more profitable crop than truck crops?

CBH: I wouldn't say that, but it's a crop that doesn't require as much labor as truck crops; it's entirely mechanized; and it's a very profitable crop to grow, one which the individual farmer can handle without much labor.

WKB: Most of the labor down there is Mexican, isn't it?

CBH: Yes, mostly. They depend upon Mexican labor or migrant labor — the latter are white people — but primarily Mexicans, locally established Mexicans, most of whom have become citizens. And in recent years Mexican laborers have been brought in under a plan developed and signed and agreed upon by the Mexican and American governments. And there are, of course, the "wetbacks" who slip in on their own. Mexican labor has contributed greatly to the development of that area.

In recent years the Imperial Valley has become quite a settled, rural community, and that's all been brought about by the introduction of electricity and modern refrigeration on farms in the valley.

WKB: Yes, air-conditioning in the home, I suppose.
CBH: Yes. In fact, several years ago, purely as a demonstration, as well as to provide our superintendent of that station with a more comfortable way of life, we built a new house out on the station and air-conditioned it. It was one of the first air-conditioned rural homes in the Imperial Valley.

When the federal government built the All-American Canal and put in a series of drops and electric plants along that canal, the wide-spread use of electricity was possible in the valley. Modern refrigeration came along, and air-conditioning. And now if you drive out through the valley at night you see everywhere lights in modern homes. People are living quite comfortably, and that has meant a stabilized rural life in that community.

WKB: Has this led to small farms again, or are they still on the large scale that they were?

CBH: Well, there are both. There are some small farms and individual operators, but I would assume, although I can't speak too definitely, that the great bulk of the agricultural crops are still produced by the larger operators. Certainly that is true in the vegetable industry and perhaps in the others.

For a while they tried dairying. That hasn't turned out to be too successful. More recently there is a good deal of cattle feeding in the valley, livestock brought in as feeders from Mexico and Arizona and New Mexico and other southwestern range states, fed out and fattened there. Then there has been some important cattle breeding work going on there among growers, farmers, who have brought in Indian Brahmans and other breeds of Indian cattle, crossed them with our beef breeds in order to produce a heat-resisting type of a beef animals. These hybrids thrive better in that climate than do our normal beef breeds of Herefords, shorthorns, and Angus.

At this little field station in the last ten or fifteen years we've been conducting various experiments with animals, studying the effect of heat upon them and their production, trying to compare their yield of beef, and maybe there's been some dairying, I don't know — all testing the effect of extreme desert conditions.
CBH: If breeds of farm animals, cattle, both beef and dairy, swine, etc., more resistant to, or tolerant of, high heat could be produced, they would add much to the economy of this great agricultural area.

WKB: Before you had this air-conditioned house, did you find it difficult to get field station workers to go down there?

CBH: Yes, in a way, although the superintendent that we had was a very devoted individual and interested in the valley and its people and he seemed to like it. For help he would have to depend on people who lived in El Centro, and drove out to the station. But a few years ago, under the stimulus of farmers and other people in the valley, Senator Ben Hulse became interested in the University work there and in encouraging us to do more. He put through on his own a bill in the legislature to buy some more land. He got some appropriations for us to build some cottages for the staff and permanent help to live in, and it's quite a little place now.

WKB: About how large is it?

CBH: Well, I can't tell you. I've forgotten now. I haven't been down there for years. But as I recall, there's these cottages, some laboratories with farm facilities like barns and corrals, something like four or five hundred acres of land.

WKB: When I think of Imperial Valley I think of all the problems of water. I know you did quite a bit of work in irrigation methods and so on. Do you do any work in irrigation institutions, water rights problems, irrigation districts --

CBH: Yes, our people have been concerned with all those matters. Professor Frank Adams, who has been retired for a number of years, did a great deal of work in what you can call irrigation institutions, and has played an important role in all of these fields, not only in Imperial Valley but elsewhere in California -- indeed throughout the West. The department of irrigation in the College of Engineering, men like, in my time, Bernard Etcheverry and S.T. Harding, interested themselves in many of these things and made important contributions, particularly in the engineering aspects. So in the field of irrigation all the work that the University has done has been by no means confined to the College of Agriculture.
Our work in irrigation in the College of Agriculture, by and large I would say, has been concerned with the problems of distribution of irrigation waters and of water use. We've done a lot of work in determining the water requirements of different crops, because some crops require a lot more water than others. The date crop, for example, in the Imperial Valley takes about twelve feet of water per annum, ten to twelve, whereas peaches, apricots, pears, etc., get along with not over three feet, plus, of course, the annual natural rainfall. Through those studies we've shown farmers in some areas of California where the water supply is short how to make their limited supply of water go farther, and at the same time how to avoid the ill effects of over-irrigation. And the ill effects of over-irrigation where drainage is poor are alkali accumulations. If you put on too much water the land, if it is not well-drained, will accumulate salts.

Take Imperial Valley. Every acre-foot of water from the Colorado River, and that's where they get their irrigation water, brings in 1300 pounds of salt. If there is poor drainage and they are putting that salty water on the land year after year with the transpiration taking place in plants and evaporation from the surface of the soil, salts are left behind to accumulate to the point where the land is almost ruined. That has happened in many parts of California, so much so that when I first came to California Dean Hunt used to say to me, "Alkali soils are California's most important agricultural problem," because he saw alkali accumulating under irrigation and he questioned whether you could ever have a permanent agriculture under irrigation. He used to point to Mesopotamia, the Middle East, and to other arid and semi-arid regions of the world where history tells us there once existed thriving areas which are now alkali flats. And he saw this developing here in California. We no longer believe that this is true. We no longer fear alkali accumulation to a point where the land is permanently ruined. We are now convinced that we can have a permanent agriculture under irrigation provided the water is handled properly and the land adequately drained.
In handling the land properly the first essential is drainage. In the Imperial Valley, and we have demonstrated this, we can actually wash salt out of the soil with water that itself carries 1300 pounds of salt per acre-foot, and increase the crop yields materially. A few years ago at the Imperial Valley station we flooded an area, put little dikes around it to form a basin, and then let that water drain out after we'd put in some tile, you see, to drain the excess sub-surface water off. The next year the barley yield was increased some 60 per cent by just leaching the salts out.

Dr. Walter P. Kelley, who is also retired, worked on alkali soil problems in California for a number of years, and he's largely responsible for our current knowledge, information about the nature of alkali soils and their reclamation. He has found also that through chemical treatments it is possible to change one type of alkali, that is, alkali that is almost insoluble — not completely so or it wouldn't affect the plants — that is much more difficult to leach out, change that to a form that is readily soluble and can be washed out. We've reclaimed a lot of land in California through that process which in Hunt's time was unproductive alkali flats, some of it on the Kearney Ranch at Fresno that the regents owned for many years.

WKB: I understand a few years back there was a considerable movement to establish another branch of the campus in Imperial Valley.

C EH: Yes, Senator Hulse was one of the most influential members of the state senate for several years. Hulse wanted some instruction in agriculture developed there and he wanted the University to establish a branch of the College of Agriculture for this purpose. But we prevailed upon him to first start with a development of an agricultural department in the local high school, and this was done. Later on I think they got a junior college started. So we were able to convince him that his needs would be better met at that level of agricultural education, rather than at the university level.

WKB: I can't imagine that there would be a large number of students wanting to attend college right there.
Only those who lived in the valley. He was a very good friend of ours and I used to jokingly say, "Ben, what do you want a branch of the College of Agriculture down here for? Do you want the boys and girls of this college to be completely educated here and not to know anything about the rest of the world, or are you afraid that once they get out of the valley they won't come back to this place?" [Laughter]

San Jose Field Station

Number two in age, I think, is the San Jose Field Station. That has a peculiar history. When I came to California that was known as the Deciduous Fruit Experiment Station. It was established by the University at the urgent request of the deciduous fruit growers in the Santa Clara Valley. They said, "The citrus people have their experiment station and we're entitled to a deciduous fruit experiment station," despite the fact that a great bulk of the University's work in the departments of viticulture and pomology was deciduous fruit work. But they were able to get such a station established in that area. First, it was located at Mountain View. I don't think the regents ever bought any land, but it was a going concern when I came to California in 1922, at Mountain View. Dr. W.L. Howard, who was one of my first professors when I was an undergraduate student at the University of Missouri, had come to California in what we still call the department of pomology, and he was in charge of this field station at Mountain View.

Did he live there?

Yes. He had been living at Davis, and as near as I can make out, had quarreled with my predecessor, Mr. Van Norman, whose name I mentioned some time ago. At least they didn't get along very well, so when Howard was offered the opportunity to go down there and head this little fruit field station at Mountain View, the Deciduous Fruit Experiment Station, he accepted.

After he and Mrs. Howard spent a year in Europe, I well remember he came back at the end of the academic year, say in June of 1922,
and came up to Davis and we had a talk and I proposed that he come back to Davis and help us develop a good strong department of pomology. I said to him, "By so doing, you will have all the facilities both at Davis and at Berkeley"— in those days some of the work in pomology was still at Berkeley — "those combined facilities are going to do far more for the deciduous fruit growers in the Santa Clara Valley than this little one-horse station that you are running down there could possibly do." And I persuaded him to come back to Davis. I assured him that some rather substantial changes had taken place at Davis since he had been abroad that year. So maybe he had confidence in his former student, but anyway he came back to Davis and settled down there and we went to work together again.

The San Jose Field Station was later moved over from Mountain View to a location near San Jose. It was set up on the grounds of an institution there maintained by the state as a home for widows and daughters of war veterans. When I first knew it it was a women's institution, dormitories, cottages, and other housing facilities, several acres of land on the outskirts of San Jose. The University built a laboratory there and later some greenhouses which still exist.

We've had one man there all the time in charge and the departments of pomology, plant pathology, truck crops, and others have used it over the years as a field station for certain studies that could best be made there. But it has never attained much significance in the sense that the Citrus Experiment Station has — I think largely because the University had better facilities for this type of work here at Berkeley and at Davis. And it was established I think it is fair to say, largely in response to the demand of some influential people, but was never developed very prominently because there was and is no basic reason for it.

WKB: Did you ever try to close the station?

CHH: My predecessor, Dean Merrill, did, but the time wasn't right for it and public opinion forced him to give it up. So I just let it dry up. I didn't try to close it. It got to the point where we
had only one scientist stationed there permanently. He wanted to stay there because his mother was running a restaurant downtown and he was helping her. He wasn't doing much but it didn't cost us very much either.

And we did make available useful facilities for other people at Davis and Berkeley to work there, so it hasn't been a complete waste of public funds. It has undoubtedly satisfied some public demand. When pressure was put on me to enlarge it I always had something to do elsewhere that was logical and more important, so I didn't get around to building it up very much.

A good friend and colleague of mine, mentioning our man down there, one time said to me, "Why don't you bring him back to Davis or Berkeley and send someone else in his place; that fellow's getting a little lonesome down there. He isn't doing very much any more." I said, "I know that, but why ruin another young man by putting him in that isolated environment? The first fellow is already ruined. Why not just let him stay there, and keep our most productive people at one of the important centers of the college?"

Did you have other field stations like that?

During my time there was a lot of public demand for these field stations, but I resisted them reasonably well, I think, and without making any enemies for the University and with better service to California agriculture. I do not like to send able and promising young men off to one of these little one-man or two-man places. In the first place, you can't get really able men to go to such a place, and if you attempt to bribe a young man by paying him a greater salary than he expected, and he does agree to go, and stay, he soon becomes intellectually lonesome out there by himself and you've ruined him.

Then there was perhaps an even better reason for my resistance. I wanted to get our four primary centers well-manned and well-equipped. I maintain that to be most productive in science one must be in a "scientific atmosphere" — not off alone and lonesome someplace. When our four centers had been reasonably well-developed I felt it would then be time to develop some more of
these field stations where workers at one of the four centers could go to do something they couldn't do at that one center. So I was able to withstand the pressure for more field stations by persuading the people concerned that after all we could do more for them as we were operating, provided we had a little land in their area. They would either give it to the University, or more often they would rent it, or they would persuade some farmer to let us use some portion of his farm so that the scientists back here at Davis or Berkeley or Riverside or Los Angeles just went out to this place to do some things that they couldn't have done at the home base.

WKB: Now I see that that was good logic, but I imagine that was awfully hard to persuade some farmer group who wanted a field station in their locality.

C3H: Yes. Well, I'll have to admit that I can think of one or two cases where they weren't too happy about it, but they didn't cause any fuss because my stand was logical and they could see it.

WKB: Someone told me you had a lot of problems with potato growers in Kern County. I think they wanted a station in Shafter and you did not want a station there.

C3H: Oh, not too much trouble, but in that particular case, as I recall, we ultimately solved the problem. Maybe we were a little slow in it but we ultimately solved it to the satisfaction of those growers by utilizing some space on the Shafter Field Station that I mentioned the other day, which had been established there by the cotton growers down there, and what was then called the bureau of plant industry of the USDA. Here again is a good example of effective cooperation between the College of Agriculture, the USDA, and the growers.

Of course our Agricultural Extension Service helped the Experiment Station a lot in this research service for farmers, because they conducted demonstrations on farms, made some tests, some experiments of various sorts. In order to complete their demonstrations they would have to harvest the plots, and we had the results. And that helped provide local information of use to the farmers of the area. So those demonstration plots served in a way the purposes of
field stations. But the primary philosophy of a field station, from my point of view, is to test locally the application of the results of more thorough studies made at one or more of the Experiment Station four primary centers. We would have a good superintendent in charge of the field station -- not a scientist, but a good intelligent man -- to carry out the directions of someone at Davis or Berkeley or one of the other places. It was the Davis or Berkeley man's work. He was doing it there because he was studying a problem that could best be studied in that environment rather than at his home base. And over the years it's worked out well.

KEB: The county agents can help you quite a bit in your field work.

CEH: Yes, they've been very helpful in, first of all, finding good cooperators. You see, the members of the Agricultural Experiment Station staff, although they may live at one of the four principal centers and do much of their work there, they too want to make field trials. And the farm advisors, knowing the people of their respective counties and knowing the agriculture of their respective counties, have been very helpful in locating good cooperators, farmers who will lend a portion of their orchard or a portion of their field to the Experiment Station man to be used in studying some local problem.

Those Extension people, working with the Experiment Station man, become quite familiar with that experiment and with the results thereof, and know and have first-hand knowledge thereof. They can, therefore, spread that knowledge among their constituents much better than if they had had nothing to do with it, you see, and were just simply serving as the mouthpiece of the Experiment Station.

Then on these field stations and from time to time on the experimental plots that an Experiment Station man may set up on some man's farm or in his orchard or in his feed lot, the Extension people will organize meetings of farmers, and invite farmers in to see the results of the tests. The Experiment Station man is often there to talk about the results obtained right there on that particular farm. That, you see, carries a good deal of weight with local people. If those experiments were conducted at Berkeley or Davis or Los Angeles or Riverside, the farmers would and often did say,
"Well, that may not work right here." But when the tests are made on his neighbor's farm under exactly similar environmental conditions as his own operations are under, he is more apt to pay attention to it. And furthermore, here is Farmer Jones, a neighbor and good friend of Farmer Brown, and when Farmer Jones is convinced that the results of these tests were useful on his farm, why, Farmer Brown is apt to say, "Well, all right. I'll try that next year."

By the time you became dean, farmers had pretty much confidence in science, hadn't they, 1930?

I would answer your question, "yes," but not completely so. I don't suppose even today every farmer in America has been educated to the point of accepting science, but the great majority of them have. That is why the American farmer is the most efficient and productive farmer in the world, today.

San Joaquin Experimental Range

What other field stations did you have besides your major centers? We've talked about one of your biggest ones and one of your smallest ones.

Imperial Valley is the oldest one. We've talked about one of the smallest ones, yes, San Jose Field Station. I think I showed fairly clearly that that was more of a political affair than it was a scientific undertaking. Now the next one in point of age I believe is the San Joaquin Experimental Range. That has been a cooperative function between the College of Agriculture, primarily the departments of animal husbandry and agronomy, and the California Forest and Range Experiment Station of the United States Forest Service.

I think they set aside in one of the national forests— at least it was public land— around four or five thousand acres of land in the foothills in Stanislaus County for studies of range management. From the beginning those two departments of the College of Agriculture, agronomy and animal husbandry, cooperated with the comparable divisions of the California Forest and Range Experiment Station in conducting various experiments whose broad purpose was
designed to improve the animal productiveness of the rangelands of California. There are, roughly speaking, about thirty million acres of rangeland in California: the foothill areas surrounding the great interior valleys, and the foothill regions of the smaller coastal valleys, where the primary land use is for pasture purposes, to support livestock, cattle and sheep. This San Joaquin Experimental Range is located in the drier areas of this range country, and it is primarily a cattle country.

So the University developed a herd of Hereford cattle on that range and produced feeders, as many farmers do who use the lower portions of the national forest and certainly the foothill lands for grazing purposes during the summer, bringing their cattle back to the valley lands or the foothill areas to winter headquarters. Now, that has been a livestock practice in California for many years.

KBE: Yes, I've often seen those cattle wandering about.

CBH: They used to drive them up to the summer ranges as soon as the snow had melted and grass and other range plants were well started. Now they usually put them in trucks and haul them back and forth.

KBE: Did your men handle the animals and the U.S. Forest Service the range?

CBH: Well, they had a superintendent there who was in charge of the whole thing, a man who knew something about livestock as well as range plants. He was the resident manager of the whole affair, and general housekeeper. Then our people in animal husbandry would work with him, and our people on the plant side of things would also work with him and with other range management people of the Forest Service. The whole range area was divided into pastures fenced off for particular studies of grazing and production of forage.

KBE: This included seeding the range?

CBH: Yes, there were seeding experiments, fertilizing experiments, brush control, rodent control, and other studies in range management. We'd put a caballero on a horse with a bag of fertilizer and he'd go out and just scatter the fertilizer over the low spots where the soil was better, the grass grew best, and where the moisture content was better than it was on the slopes. And they were able
CBH: also to increase the forage production, the forage yield, by introducing better species of plants, forage species.

VKB: Did this include brush-burning studies?

CBH: Yes, clearing of the brush was involved, the burning or destruction of brush by chemicals or actual physical destruction with bulldozers, clearing of the range and reseeding. Experiments like that were conducted as well elsewhere. But this field station was a sort of a center for our men with their own livestock to measure the production of meat through the growth of the animals.

VKB: Did you just use ordinary animals, or did you try animal breeding at the same time?

CBH: We had purebred animals. Yes, and they practiced good animal husbandry too, because our purpose was to demonstrate to the ranchers how to improve their herds, and how to manage those herds, and how to manage the rangelands. In short, how to develop a profitable and successful range livestock enterprise. Those were the broad objectives. The work involved many different approaches and many different things, but those were the three primary purposes of that work.

VKB: Did this joint project between the College of Agriculture and the U.S. Forest Service work out satisfactorily?

CBH: Our cooperation on the animal side was very good; our cooperation on the plant side was less satisfactory, so much so that some of the cattlemen wanted us to take that field station over. They wanted to go to Congress to get legislation through to transfer the title to that range to the University. I recommended against it for the very reasons that I spoke of with regard to Shafter. The trouble here was primarily a personnel conflict. But you don't build an institution like these things we're talking about just on personalities. If you did you'd never get anything done. You'd be changing all the time. I tried the best I could to smooth out these difficulties, but I suppose I must admit failure, for I am told this enterprise has been finally closed -- at least the University part. Personality conflicts are sometimes expensive luxuries! But the work on that experimental range is the kind of work
CSH: that couldn't possibly be done at Davis. It has to be done out on the rangelands.

WKB: Would a center like this be used also for practical training for range management students?

CSH: Oh, yes. In our curriculum on range management students are taken on field trips to visit those areas and also visit other range areas to see at first hand what is being done, but there would be no point in taking the students out there to live and try to do the instruction there.

WKB: You think the closing of the San Joaquin range is a loss?

CSH: In my judgment the College of Agriculture needs such a center and will need it for a long time; with the current continued growth in California's population, and the urbanization of her valley lands, we must in the long run turn to the range lands for more of our food supplies.

Hopland Field Station

CSH: We might talk about another field station which in a way is the complement of the San Joaquin station. It is in the range country of California, and is the Hopland Field Station. That's up here in Mendocino County close to the little town called Hopland in what we may call the better-watered range area of California, although it's still fairly dry. That probably is why the Hopland range country is largely used for sheep production, and the San Joaquin range for cattle. This, of course, isn't a hard and fast line, but generally speaking it's true. So one of the last things I did before retirement was to recommend to the regents, and they approved, the purchase of a ranch near Hopland for another research center in this great thirty million acres around the periphery of the valleys, a permanent center for the study of land use problems of the range country.

You see, beginning with Hilgard's time the bulk of the resources of the College of Agriculture and its Agricultural Experiment Station has been devoted to learning how best to use the
valley lands, only ten per cent of the total area of the state of California. And the valley lands, you see, are being used more and more for purposes other than agriculture: housing subdivisions, highways, airports, schools, parks, various other uses which transcend the importance of their use for food production. Therefore, man himself is taking the valley lands out of agriculture, the land that he used to use to produce his food, and making other uses of it.

So it seemed to me that it was high time we begin to study more carefully and more thoroughly the land use problem of this thirty million acres of range land than we'd ever done before. My generation and yours will not need this, but the next and the next, certainly they will, and to an increasing degree -- unless in the meantime man decides not to overcrowd the world with his own species. And I said to the regents at the time, "It just could be that as our population continues to grow, more and more of our good farm lands are taken out of agriculture to be used for something else, it just might be that in the next 25 to 50 years the College of Agriculture's greatest contribution to the state of California will come from the studies of how best to use these range lands, how to improve and conserve them, how to get more from them."

Even today -- indeed for the last ten years or more -- California has been a deficit state in respect to every animal product which we use for human food, with the exception of turkeys. We ship out animal products, to be sure, but we ship back into the state in the course of a year more than we ship out. So we have depended for several years upon surrounding states, and sometimes we have gone back as far as the Mississippi River to get poultry and eggs to feed the people who were already in California at that time.

WKB: Someone told me you had a hard fight to get this Hopland Field Station established.

CSH: No, I can't recall of any difficulty.

WKB: Maybe they are all hard fights, every time you wanted to buy something.
CBH: Well, one ought to be willing to do a little fighting if necessary to accomplish what he believes in. But I can't recall of any serious trouble in this case. And I recall that I made quite a speech to the regents, but I'm sure I convinced them, because they made the appropriation I asked for and encouraged me to go ahead; and I don't see how anyone could challenge the arguments that I've just made, and subsequent events, subsequent population growth, seems to me to have proved my thesis.

WKB: I understand you bought the Hopland station from Mr. Roy L. Pratt.

CBH: Yes. At the time he was president of the California Packing Corporation, a man whom I had known personally for some time. We prevailed upon him to sell it to the University for this purpose.

WKB: Was he a rancher? Was this part of his occupation? Or was this a hobby?

CBH: Well, in a way perhaps it was a hobby, but it wasn't a rich man's hobby. I mean it was a successful business affair. But, you see, he had grown up and spent his business life in a great business organization processing California fruits and vegetables. He had an emotional interest in agriculture too, and recognized and appreciated its significance and importance. And I think it would be fair to say that he was rather pleased to have the opportunity to cooperate with the College of Agriculture in making his ranch available to us. Now, he might have sold the ranch to somebody else, I don't know, maybe at a greater price than we paid. But he did let us have it, for which my colleagues and I were grateful.

WKB: Had you been shopping around for a ranch before this time?

CBH: Oh, yes, we'd been shopping around. I'd had three or four people up at Davis, sort of a committee, looking over the whole range country. We wanted a ranch in this general area because we had the San Joaquin in the dry area. We wanted one in the north in the better-watered range area. They looked over many ranches there and they finally settled on this one, and then it was a question of negotiation with Mr. Pratt to get him to sell it to the regents.

WKB: Who handled negotiations like that?
Mr. Robert Underhill, secretary and treasurer of the regents, also was the regents' land agent all of the period I was dean of the college. I've always dealt with Mr. Underhill whenever I found a piece of land that I wanted the regents to buy. He did the actual negotiation, very effectively, I might add.

I can imagine sometimes it wasn't too pleasant work.

Yes, once in a while we had to condemn. We had to go to court to condemn some of the land we bought at Davis.

Yes, I think I read some of that material. Campbell?

Yes, the Campbell ranch at Davis, which we bought a few years ago.

I was feeling sorry for Mr. Underhill as I read through that.

Well, we set the stage for him pretty well because we had bought, with his help, by negotiation, some surrounding land. Now, while the regents have the power of eminent domain, they much prefer to negotiate rather than to condemn. We actually were able through negotiation to buy four of the five -- I believe it was -- pieces of land I wanted. Only one -- the Campbell sisters -- refused to sell, and to acquire that tract the regents were forced to resort to condemnation. The stage was set, I say, because when we got to court I had no difficulty in demonstrating to the court's satisfaction that I needed this particular 400-some-odd acres, which by that time was right in the center of the new University Farm, rather than its equivalent in acreage across the road, because it rounded out our total holdings at Davis, all in one piece, transected by a railroad and by highways to be sure, but all contiguous land. It was easy to show to any intelligent person that it is much more economical to operate a single piece of land all together than an equal acreage in several tracts, with much traveling back and forth and the moving of machinery among them. As I recall, that was the only difficulty I ever caused Mr. Underhill.

Well, that's what I read about, that he went in and tried to buy the property from these ladies and they were unpleasant to him.

One of the stories he told me was that they said, "You can go back and tell Benjamin Ide Wheeler that we will never sell our land to the regents." They must have known that Wheeler had been dead for
many years. It just could have been their way of telling Mr. Underhill what they really thought of his proposition! We even offered to move the old house in which they had lived all their lives over to the highway, rehabilitate it, and let them live there rent-free as long as they wanted to, but even this did not persuade them to sell.

But before we leave the range country and the College of Agriculture's interest in it, let me mention another important use of it other than food production. Other animals besides cattle and sheep use the forage of the range, and other men use it besides the farmers. And if one is to study all potentials of the range and all of its possible uses, these things must be kept in mind. Domestic animals share the range and the forage with wild animals, some of which provide a means of recreation for man—hunting and fishing. So both at the San Joaquin station and even more at Hopland, extensive studies of wildlife and other zoological investigations are under way. For example, the role which wild animals play in the depletion of the range—deer in forage consumption; gophers, ground squirrels, etc., in causing soil erosion with their burrows—these and other matters are important factors in range management. At the Hopland Field Station they are studying deer. It's good deer country and a problem that the farmers in the foothill lands have long had to wrestle with is how many deer can they afford to have running around their range and still have enough feed left for the cattle. On the other hand, the sportsmen, recreation people, and wildlife enthusiasts are very much interested in deer and other wild animals. So somewhere along the line you have to compromise between the farmers' point of view, which would be—though I hasten to say that some of them like to hunt as well as city people—by and large their economic interest is in the forage grown for domestic animals and that of the non-farming population.

The several interests of the range and the range country are not infrequently in conflict, so the University's study of range management must be both broad and comprehensive.
Wolfskill Experimental Orchard

I'm taking these field stations in the order of their establishment. All right, let's talk about the Wolfskill Experimental Orchard next. That's over at Winters, twenty-five miles directly west of Davis. In the early days of California a man named Wolfskill established a ranch there in an area that has proven to be a very productive deciduous fruit area, especially an early fresh fruit area. It is now earliest fresh apricot shipping center in California. The first elements of the fresh fruit shipping industry grew up down around Vacaville in the Vacaville-Suisun Valley. That was where the California Packing Corporation was born, and where the first fresh fruit was shipped to the East from California.

This man Wolfskill developed a fruit ranch near Winters. His daughter inherited the ranch, and when she passed away some twenty or so years ago her will provided that after the death of her heirs -- one of which was her grandson, a youngster of twelve or fifteen years of age -- the title to the whole ranch was to pass to the regents of the University. Her plan, you see, was to keep the ranch intact and ultimately to go to the University, in memory of her father. As I have said, it is in an excellent deciduous fruit producing area, much better in this respect than the University Farm at Davis and yet near enough to be operated conveniently from the Davis campus. We were delighted with the bequest, even though it was apparent that our present day staff would never use it. But when we learned that some of the heirs preferred to have their inheritance now and to do with it as each saw fit, we said the University too would be happy to have some of the flowers now rather than all of them fifty to seventy-five years later. So a plan was negotiated with all these heirs whereby the ranch would be divided and the University would take its portion of it now, giving up all claims to the rest of the ranch. This plan was agreeable to all concerned and it was, in due course, approved and confirmed by court action.
We took over the ranch house and the central portion of the ranch, some 150 acres or so, as I recall. It has been used by the department of pomology and developed into one of the most noted deciduous fruit experimental orchards in the nation. In the collections are many different varieties of peaches, pears, plums, apricots, all of the deciduous tree fruits, including some olives; many thousands of seedlings from breeding experiments have been studied, and new varieties produced. The old house, a very interesting structure itself, burned several years ago, and we replaced that with a house for the superintendent and a field laboratory. And, as I say, it has become quite a well known research center among horticulturists of the country, not only in our own state, but researchers from the USDA and from other experiment stations in the states where deciduous fruits are important. Being so near to Davis, it is really a part of the campus there and a very fine addition to the department of pomology's facilities. My aversion to the isolation of most field stations does not, of course, apply in this case.

Tule Lake Field Station

I've got Tule Lake marked next on my time chart. That's approximate, but I'm sure its development came after the Wolfskill Experimental Orchards. Up in the Tule Lake region some public land was brought under irrigation by the U.S. Reclamation Service right after World War I, and then they opened it up for settlements to war veterans. Then they did the same thing after World War II. It is quite a veterans' settlement, although undoubtedly some of the original settlers have sold out. However, all the land was originally given to veterans by lot, just like the old western great plains area was opened up following the Civil War, you know, under the Homestead Act.

Well, that is an area in which only temperate zone and even the more hardy temperate zone crops succeed well. The U.S. Weather Bureau records show that frost can and does occur any month in the
Potatoes have been an important crop there. Wheat and barley and corn and other crops are also grown, but it is in the extreme northern part of the state, isolated agriculturally-speaking. Its environment is quite distinct from any other parts of California and presents some distinct problems. The veterans' organizations and the people there appealed to the College of Agriculture for help with these problems.

That area, you may recall, was used as a concentration camp for the Japanese who were removed from the coastal area during the war. Some of the old buildings were rehabilitated and used by our people in agronomy and truck crops for a field station. They stationed a man there, a superintendent to do the planting, cultivating and harvesting in tests and experiments planned by the departments at Davis. From there it's grown a little bit, and is now one of the chain of field stations studying local problems of production of crops that give promise of being suited for that particular area — in this instance chiefly vegetables and some of the grosser field crops, like wheat and barley, alfalfa, and so on.

Is it a very prosperous area?

I wouldn't think so, but I guess the main reason the station was established there was that the area had been settled by these veterans and everybody was interested in doing everything they could to help them with their problems. They provided the facilities there to get started, crude though they were. People driving up from Davis to conduct experiments needed a little base there, a place, a laboratory and work shop, and so on. Finally, as I have said, they employed a superintendent to stay there and look after these field plots. And that's the way this field station got started. And so far as I know that's the only use that has been made of it.

Antelope Valley Field Station

Antelope Valley comes in next. That is a reasonably interesting field station. Antelope Valley is in the northern part of Los Angeles County, surrounded on the northeast and west by mountain
ranges, and there is no irrigation water there except that which is underground. Oh, they get a little rainfall each year, not very much, and maybe a little runoff from the Tehachapi Mountains and other segments of the Coastal Range, but not very much. And yet the area is relatively level, the soil relatively productive, and it was opened up for agricultural settlement many years ago.

Farmers took it up in the form of homesteads, I assume, in the early days, and farmed it, with irrigation waters pumped from underground basins. Then the water table began to drop, but still they struggled on. They appealed to the College of Agriculture to do something about it. Our irrigation people and others who knew something about underground waters said that there wasn't much to be done other than try to grow crops which required the least amount of water. They were growing alfalfa and the hay was being shipped down farther into Los Angeles County to feed dairy cows in the rather unique "milk factories" that were running in the city of Los Angeles in those days, and I suppose still are.

These people then appealed to the state engineer, Mr. Ed Hyatt, who was the father of this great California Central Valley water plan, the original one. He made some further studies and advised them that he saw no way by which water could be imported into that area, no source nearby. So the question then resolved down to what the farmers of this valley could grow, what kind of agriculture they could then practice that could get along with the least amount of water. One of the things that certainly could be done was to grow less alfalfa and grow more drought-resistant crops like the sorghum crops, and maybe some other things. So we set up this little field station down there to do that very thing, and they've been running experiments of that sort ever since.

In the meantime Antelope Valley has become a great airplane manufacturing center. Some of the great airplane factories have come into the area. The first field station that we had was on the airport grounds of, I guess, the county of Los Angeles. Then after World War II and the continued growth of the airplane industry we had to move off that land and go out into the country some place.
Now, the current state water plan which went through the legislature this year with a bond issue of about $1,700,000,000, if that is voted in by the people and they build this canal down the west side of the San Joaquin Valley and pump water over the Tehachapi Mountains, this will bring water to Antelope Valley. And if, as, and when that is done, the purpose for setting up that little field station will be solved. It won't be solved in the way we planned, however, for agriculture ultimately will largely disappear. We were trying to see how they could still maintain some type of agriculture there that would consume the least amount of water.

There again, you see, is a problem, very important to the people of the valley, which couldn't possibly have been studied any place else than right there. Growing crops out at Riverside or Davis or some other place to determine their water requirements would produce certain basic knowledge, but it wouldn't demonstrate to the people in Antelope Valley that these crops could be grown right there with less water than they had been using.

Napa Valley Field Station

Now we come to Napa Valley. That's an interesting thing, too. It is primarily a viticulture station, and is located in the Napa Valley, which is one of the coastal valleys, a valley that has been very prominent in the wine industry for many decades. This is one of the areas where the wine industry first got started in California. Several years ago, right after prohibition was repealed, we started out to help rehabilitate the viticulture industry of the state. We wanted a place again away from Davis, because Davis is not noted for the production of wine grapes as is Napa Valley. We wanted a place in a good table wine growing area to test well-known varieties of grapes, together with a place to test out the new seedlings which our plant breeders were producing in large numbers with the hope of developing even better varieties of wine
grapes than we now have in California, all of which have come from Europe — the Vitus Vinifera type of hard-flesh grape as contrasted with the Labrusca type of the East, the slip-skin type like the Concord variety. The Concord is the most prominent Labrusca variety used in the grape industry in the East for fresh fruit, grape juice, and wine. All our varieties of Vinifera grapes have come from Europe.

We set out to determine, if we could, by making samples of wine from all these various European varieties when grown in various parts of California, which of these European varieties are better suited for the production of a particular type of wine, and where those varieties reach their highest stage of development in California. And then we wanted facilities to test the many new seedlings which we were and have been producing through plant breeding methods, literally thousands of them, in the possibility of developing even better varieties than now exist either here, in Europe, or in any other part of the world. So we bought a piece of land up there in Napa Valley. The USDA had maintained a viticulture field station there for many years. For some reason or other we were unable to get the department at the time to cooperate with us. I think it was possibly during Mr. Henry A. Wallace's time as secretary of agriculture. Mr. Wallace's grandfather was a Presbyterian minister, and Mr. Wallace was, let's say, less tolerant of alcoholic beverages than I am. The WCTU and other people perhaps prevailed upon him not to permit the Department of Agriculture to get into this nefarious business of wine-making.

WKH: Well, what did they do with their station?

CNH: They just let it stand there for a while and didn't do anything with it. They wouldn't sell it or give it to the University. We couldn't make any arrangements with them, so we went in and bought a piece of land ourselves. Later on I think the department did give their land and facilities to us. Maybe the secretaryship of agriculture had changed by that time. Anyway, I believe we now operate both places. And it's designed just for the purpose that I said, a highly specialized little field station for, in my judgment, a glorious purpose.
The raising of grapes and the making of wine.

Yes, they probably bring the grapes over to my "enological laboratory" at Davis to make the wine. Have I told you that story?

No. I wondered if you worked on better ways of making wine.

Oh, yes. Well, right after prohibition was repealed — that was in the early part of 1933 — I went to the president of the University of California and said to him, "Mr. President, I think the regents should encourage and enable the College of Agriculture to equip itself to serve the viticulture industry through education and research in the same way we aspire to serve all other agricultural industries in California." And he said, "Well, what do you want to do?" And I said, "I would like you to recommend to the regents that they appropriate some funds to enable us to build on the Davis campus an experimental winery. In that winery, among other things, we want to make samples of wine, let's say in five-gallon lots. We'd like to go up and down the state in the autumn season when the grapes are ripe and pick up a few hundred pounds of known varieties of grapes throughout the state and bring them into Davis and make roughly five-gallons of wine from each lot each year."

We did that for five or six years, maybe longer, collecting about 500 samples of grapes, lots of grapes, each one enough to make about five gallons of wine. Now, at that time the president and I knew that there were certain elements and organizations in society who were opposed to the University getting back into this nefarious business. So instead of asking the regents to appropriate money for an experimental winery, I suggested that he recommend to them that they build at Davis an "enological laboratory." I have always thought that only one member of the regents immediately knew what I was talking about when that proposal came before them.

That appropriation was made and the laboratory was built at Davis, and for five or six or more years we had a truck each fall going up and down the state getting the grapes to make the wine. This laboratory at Davis has since been enlarged and its activities greatly expanded. It has become the most outstanding university center for education and research in enology in America. And the
little variety-testing field station in Napa County still continues to be an important adjunct.

South Coast Field Station

Now that's all of these field stations except the South Coast Field Station in Orange County that I had anything to do with. There may be others by this time. All right, let's reflect a moment. The purpose of that station was to provide experimental facilities for our sub-tropical horticulture staff to use in studies of species of tree and other fruits and sub-tropical fruits that do not thrive in the drier climate of Riverside. It was designed to supplement our land and orchard and grove facilities at Riverside and, at that time, at U.C.L.A.

Riverside is an excellent orange and a pretty good lemon district, so our work in citiculture has been largely done at Riverside. But avocados do not thrive well in that drier climate. And some other sub-tropical fruits find the hot, dry climate of Riverside unfavorable for their full development. So some of the work was done with those species on the Westwood campus, UCLA, but we've always had at UCLA a limited amount of land.

Ornamental horticulture also comes in here because roses and some of the other flower and ornamental plants that we're dealing with do not thrive as well in the interior valleys as they do in the cooler climate of the south coastal region.

This field station was designed to supplement Riverside, and also to provide more land than was available to the College of Agriculture on the Los Angeles campus. If you were to draw lines on a map from one to another, Riverside, Los Angeles, and Orange County, you would form a sort of triangle. The Orange County location is about the same distance away from Westwood as it is from Riverside, so it was easily accessible, or as accessible as anything can be in that maze of freeways, etc., in and around Los Angeles. But it was reasonably accessible to both places.

So I approached Mr. A.J. McFadden, who as president of the state board of agriculture was at that time an ex officio regent
of the University, and interested in agriculture. He played a
great role often over the years in the development of the College
of Agriculture's activities in Southern California. Even before
he became a regent he was interested in it. He was very helpful,
a prominent member of the old Agricultural Legislative Committee
and of another committee that had something to do with moving sub-
tropical horticulture from the Berkeley campus to UCLA.

WB: Was he a Southern California man?

CEH: Yes, and a member of the board of directors of the Irvine Founda-
tion. That is an organization set up to manage for philanthropic
and educational purposes the estate of -- I've forgotten his first
name -- Mr. Irvine, who developed that great citiculture, wal-
nuts, avocado, etc., enterprise in Orange County. They had large
holdings of land there.

So I interested Mr. McFadden and in turn he interested his
board in making available to the University, I think through sale,
but at a reasonable figure, land to establish this coastal station
in the area where we wanted to locate it. Before we got it well
under way -- as a matter of fact we hadn't done much more than ac-
complish the acquisition of the land -- I retired; so since then
whatever developments have taken place have been after my time,
but my objective has been attained. I had in mind, although I
didn't talk too much about it at that time, that as long as the
College of Agriculture maintained activities on the Los Angeles
campus this tract in Orange County would be available for their
work with sub-tropical fruit plants, and also for their experiment-
tal work in ornamental flowers and shrubs, etc.

WB: Sounds like you were the one who initiated this acquisition.

CEH: Well, at least I guided it. And when I tell you what I'm about
to say now, it will indicate some more of my philosophy. I wanted
this field station currently available both to Riverside and Los
Angeles, but I predicted in my own mind what is now happening,
namely, that the pressure for land on the Los Angeles campus for
other University purposes would ultimately do what the same kind of
pressure has done over the years at Berkeley -- force the moving
of agricultural activities away from the Los Angeles campus. Of course, I think there is only one place for them to go, namely, Riverside, where there is already substantial development in agricultural research, where there is already a scientific atmosphere, currently being strengthened by developments in the new College of Letters and Science. And yet they'll have to have more facilities, and land in a favorable climatological environment in which to do their work. That can never be provided at Riverside, but it can be provided sixty miles away at the Orange County station in Irvine.

Recently I have heard that the University has decided to locate one of the new general campuses nearby, perhaps adjoining this field station. If so, fine. This will be helpful and encouraging for our work in agriculture, as it turned out at Riverside.

WKB: I've been impressed by how you were looking so far ahead to the future of the College of Agriculture.

CBH: Mr. Sproul one time rather facetiously but at the same time I think sincerely, paid me a very high compliment when, after a talk I had made before the Alumni Association one evening about some of the things I was thinking forward to for the college, he said, "That fellow Hutchison is always thinking fifty years ahead of his time." I thought that was a nice compliment. Somebody ought to be thinking of the future as well as of the present.

Other Properties for Agricultural Research

Kearney Vineyards

WKB: I think the problem of the Kearney vineyards or Kearney farms, near Fresno, dragged on and on for quite a while and caused quite a bit of concern.

CBH: That ranch was given the regents by Mr. Theodore Kearney many years ago. There was some thought at the time -- I'm sure Mr. Kearney had the thought, and doubtless others -- that the College of Agriculture might use that ranch for educational and research purposes.

WKB: I think 1906 was the date of the bequest. Had Mr. Kearney been
WB: associated with the University?

EH: I don't think so. But he was a rather wealthy man and had accumulated, as I recall, around five or six thousand acres of land in this ranch.

WB: Do you know if this bequest had been encouraged by members of the University, or did it just fall into their laps unexpectedly?

EH: Oh, I have no doubt that Mr. Kearney had some connections with the College of Agriculture through Dean Hilgard. He knew Hilgard and was interested particularly in Hilgard's studies of alkali soils. There must have been some sort of understanding that maybe this ranch would ultimately be used by the College of Agriculture, and indeed a portion of the ranch was so used, particularly by Dr. Walter P. Kelley in his work on alkali soils. Kelley and his associates took over 160 acres of that ranch, a tract in which the soil was full of alkali, and used it as a field station in his very important studies of reclamation of alkali land. Whether anything else was done of any magnitude on the ranch, I don't know.

WB: Oh yes, you mentioned Dr. Kelley's work in connection with the Imperial Valley Field Station. Do you recall how the Kearney vineyards were administered when you became dean? Did that go through the College of Agriculture or was that directly through the regents?

EH: No, the actual management was always in the hands of the land agent of the regents, with a resident manager. During my time Mr. Robert Underhill had this responsibility, with Mr. Parker Frisselle as resident manager. So the college was not involved during my time and, to the best of my knowledge, was never involved in the actual management of the ranch. But we served in an advisory capacity. I remember one time Mr. Underhill asked me to suggest to him a few people in the College of Agriculture who might go down and look at things and advise with him and the manager, but it was his responsibility to manage the ranch.

WB: I believe I read somewhere that when it was set up there was a Kearney Vineyard Company which was administering it, and that this was composed of quite prominent individuals, like A.W. Foster, W.H. Crocker, Frisselle, John A. Britton, V.H. Henderson.
That was before my time.

I believe later Ralph Merritt had something to do with that. He was the financial agent.

Yes, and he was comptroller of the University as well. I think Mr. Sproul succeeded Ralph Merritt as comptroller. Parker Frisselle, incidentally, was the son of the Frisselle that you mentioned. I never knew his father.

Was the Kearney farm good farm land?

Yes, most of the land was very fertile. There were alkali spots in it due to lack of proper drainage.

So the ranch was used primarily as a commercial activity. I know that was the case when I first came to the University, for the income from the ranch was used by the College of Agriculture. That was one source of income for the total budget of the College of Agriculture. During the agricultural depression there wasn't much income from it, but after the economic situation began to improve and Mr. Underhill was put in charge of the ranch by the regents, he made some changes in the management and, after the middle thirties, it began to bring in some returns again. Ultimately the regents decided they didn't want to run a farm and that they could realize more returns if the ranch were sold and the proceeds invested in securities along with other endowment funds, and that was finally done.

When the ranch was sold, the question naturally arose — what would we use this income for? And I conceived the idea of setting up an organization within the structure of the College of Agriculture that would devote its attention to basic study of soils. Mr. Kearney himself was interested in Hilgard's studies and the College of Agriculture's interest in the ranch over the years was influenced greatly by the alkali problem, so it seemed to me very appropriate to devote the income from that endowment to a study of the soils of the arid regions.

The great bulk of our knowledge of soil science has been built in the humid regions of the world, Western Europe and Eastern United States. And yet about one-third of the total land area of the world
is arid or semi-arid, and in all of that area there are too few instances of basic studies of the soil per se. Soil is a very complex medium and we know too little about it, and yet it's very important in the scheme of things in this world. Just think of all of the nations and peoples of the Middle East who have to depend upon arid soils for their food. Any further basic knowledge of arid soils that would lead to increased productivity would be of great importance to them. And don't forget California either. We still have three or four million acres of land of which the soil productivity has been lessened by alkali accumulation. This has happened to the only relatively level land we have left to replace the good lands of California now being lost to agriculture by subdivision and urban uses. It seemed to me that if such a research agency were created, the University of California would have a unique opportunity to take the leadership of the world in studies of arid soils. This University could become the center to which young men of those areas would turn for advanced study of their nations' own soils. We can always attract public support through the Congress and the legislature for studies of the more practical aspects of soils, the use of soils. But we need to have a better understanding of the soil itself.

So I recommended to the president that we form the Kearney Foundation of Soil Science and devote the income from that endowment to such basic studies of arid soils. My proposal -- he saw its significance so clearly he didn't even call me to his office to talk about it -- he immediately approved and presented to the regents, and they approved it and it was under way.

WKB: Is this foundation administered like the Giannini Foundation?

CSH: I really can't answer that question, for I retired almost immediately after this and hence didn't have time to complete my plans. I had in mind, myself, something like the Giannini Foundation organization, but I think my successors have made it entirely independent of the department of soils, although there must be cooperations going on between the members of the staffs of the two organizations.
KB: This is a separate unit that comes under the college?
CBH: Yes, you might call it another department of the College of Agriculture and the Experiment Station, and it is certainly there in the University's new Division of Agricultural Sciences, but just how I do not know.

KB: And do you get additional funds?
CBH: I don't know whether they are supplementing that income by other public funds or not.

KB: Was it enough of a foundation to carry on without additional funds?
CBH: As I recall, we estimated that the income would be something like eighty to eighty-five thousand a year, and that's a rather substantial sum. They realized about $2,250,000 from the sale of that ranch. I suppose currently the income from investments of the University is running around four per cent, so that would be about the magnitude of its annual budget.

KB: I read some newspaper clippings, one by Franklin Hirschborn, a journalist in the Sacramento Bee, of 21 March 1931. He was attacking the College of Agriculture, and one of the things he was very critical of was why they didn't make the Kearney vineyards either into an Experiment Station or another agricultural college for the people in the San Joaquin. Did you ever consider establishing another University agricultural college?

CBH: No, I don't think the College of Agriculture ever thought seriously about that, certainly not in my time.

KB: I believe that in that matter the competition with Cal Poly came in.
CBH: Yes. When I became dean, the Smith-Hughes high school departments of agriculture were well established not only in California but throughout the country. The California Polytechnic College — then called school — was being revived, and some of the other state colleges, like Fresno State, were beginning to get interested in agriculture. And the College of Agriculture was slowly receding on the ebb of the tide ultimately to give up all responsibility in agricultural education at those levels.

KB: At the time the Kearney ranch was sold I think George Pettit suggested, because the Fresno citizens were so riled up, that the
WKB: money perhaps might be devoted to scholarships for San Joaquin Valley young people to attend Davis. I wondered if your soil foundation idea -- did you think that would be particularly attractive to the Fresno area people and might appease them a bit?

CBH: No, I'm afraid I wasn't thinking much about the local point of view there. I was thinking about the welfare of California and of the other arid and semi-arid regions of the world.

Kellogg Farm

WKB: The Kellogg farm was another piece of land that caused some concern. That whole situation sounded like a comedy of errors to me.

CBH: That was amusing in a way. Mr. W.K. Kellogg, who established the Kellogg breakfast cereal company, made a lot of money. As a boy he wanted a pony but his parents, whether because of their economic condition or their living circumstances, denied him this pony. So as a boy he resolved that when he reached manhood he would have a lot of ponies. Therefore, many years after, he bought this ranch down at Pomona, built a winter home there, and commuted back and forth from Battle Creek to the ranch. As he grew older he began to spend more and more time down there. He had long been interested in the Arab breed of horses, and imported a substantial herd of Arab horses, I think primarily from England, and began to breed and increase his herd on the ranch at Pomona.

WKB: These are riding horses.

CBH: Yes, primarily riding horses, but being an old breed -- one, if not the oldest breed in the world -- Arab blood has contributed, I imagine, to the development of practically every breed of horse that we have in the United States and Europe today. But Mr. Kellogg saw the automobile come along and the decline of the use of horses on American farms, and he began to fear that the Arab horse might some day become extinct. So he built up this herd, a very prominent and a very good one. One of his sires, a stallion he was using, was named "Jadan," and that was the gray Arab that Rudolph Valentino rode in "The Sheik." Did you ever see that silent movie?
(Incidentally, Jadan died while the University was managing the farm and his skeleton is preserved; it is now in the museum of the veterinary school at Davis.)

Mr. Kellogg conceived of the notion of turning this ranch and herd over to the regents, because as he grew older and began to realize that his journey was sooner or later coming to an end, he wanted to provide for the maintaining of these horses. His first approach was to the College of Agriculture while I was in Europe, to my predecessor, Dean Merrill. I don't know the circumstances, but no decision was made. Soon after I became dean he wrote to me and renewed his proposal and asked me to come down to see him, so I went. His proposal to me was that he would turn over the ranch and the herd and $300,000 in endowment to the regents, provided the regents would agree to maintain that herd of Arab horses in perpetuity. When he used that word "perpetuity," I said to him, "Mr. Kellogg, perpetuity is a long time. I am unwilling to recommend to the regents that they agree and commit themselves to do anything except education and research forever."

"Well," he said, "forty years after my death, then." On that basis we began to talk. And by negotiation back and forth with him I whittled his demand for forty years following his death to a period not to exceed forty years from the date we took it over. And I got him to increase his endowment proposal from $300,000 to $600,000. And on that basis I recommended to the regents that they accept it, and they did.

Now, Mr. Kellogg was not the easiest man to deal with. His own wife said to me one day, "I wish Will would just once give something away completely," because everything that he ever gave he dabbled in after he gave it. So he caused the regents a little concern and was hard to deal with. Finally, he demanded to have it back, and of course the regents didn't want to do that, and thereby accept the implication that they hadn't managed it properly. Some other people in the University were involved in these negotiations along with the regents. So finally it was ended with a statement in which Mr. Kellogg complimented the regents for the management of
it, how it was run and so forth. He took the ranch and the horses back. We kept the $600,000 endowment. The horses and ranch went back to the Kellogg Foundation, which in turn gave it to the remount service of the U.S. Army. After World War II, during which the use of cavalry in the U.S. Army was terminated, the government closed the remount service. The ranch and horses were turned over to the bureau of animal husbandry of the USDA, which maintained them for a while. But the bureau had little need for them, and ultimately they turned them back to the Kellogg Foundation. Finally the foundation worked out an agreement with the California Polytechnic College to take over. I think it is still being run by that college, but I don't know under what arrangements.

Well, this was one of those things which one could argue did not belong in a University in the first place, but a lot of people in Southern California were very much interested in it, and some very prominent people down there brought pressure on the regents to accept it.

WKB: Oh, I saw that. Garret McEnery was contacted.

CBH: Yes, Garret McEnery was president of the regents at that time.

WKB: Kemper Campbell and --

CBH: Harry Chandler of the Los Angeles Times. I'm sure some of the regents were rather reluctant, but they took it on.

WKB: Was this reluctance due to the fact that they weren't sure that Arab horses were a part of agriculture, or was it dealing with Mr. Kellogg that was the problem?

CBH: No, they didn't see much educational use of it. And we had to agree to put on livestock shows on Sunday afternoons regularly from, let's say, November to May. We whittled down many of his demands, for some of them at first were very excessive, but we were gradually able to reduce them to a reasonable point. One of the reasonable points was that while we finally agreed to maintain these horses for forty years, I got in a clause which required us to maintain them on that particular ranch only for eleven years, and when the eleven years was almost over we gave up the whole deal -- I think we ran the thing for about ten years -- but at the end
of the eleven years I intended that we would move the horses to Davis and make it a part of our animal husbandry development there. But it was so popular in Southern California that a lot of people would probably have publicly protested and we might not have been able to move them. I still think it would have been a nice thing to have the horses at Davis. Students could have used the horses in riding, and so forth, and developed a nice extracurricular sport activity, let's say. I still think it wasn't too bad an idea, although I can't claim that it was a great educational undertaking.

Dr. Hart and I and one or two others had more contact with Mr. Kellogg than other University people did. Some of these people, including some good friends on the board of regents, weren't too happy about it, so they finally decided to give it up. But I did add at least a half a million dollars to the University by that nine or ten years of work, the income from which has been used for some special things by the department of animal husbandry, primarily in animal breeding work, I think, at least it was during my time.

WKB: He sounds like a very crotchety old gentleman.

CSH: Yes, he was crotchety.

WKB: And I gather he was critical of Major Bell, who was sent down to manage the ranch. It seems that he had his own man, Mr. Reese, on the ranch. Wasn't that it?

CSH: Yes, Mr. Reese managed the ranch for Mr. Kellogg, and we kept him for a while until we discovered some things about him that we did not think properly characterized a University man. We let him go. And then I guess Major Bell went down.

Oh yes, Mr. Kellogg was critical of everyone, and the knowledge of that got to the president and the regents, and none of them were too happy about it since the whole enterprise wasn't of basic importance to the University. I tried to do what I could to placate Mr. Kellogg. Personally, we got along pretty well; I think the old gentleman rather liked me. But he didn't like the regents for some reason or other. And I think maybe we didn't cultivate him enough. Maybe we should have flattered him a little more.

WKB: In the files there are numerous letters he wrote to Mr. Sproul, so
many, in fact, that if Mr. Sproul had had nothing else to do but answer those letters he could have kept busy.

CEH: That's right, surely. So it wasn't a very happy affair, but after all is said and done we got a nice $600,000 endowment, which maybe was worth all the trouble.

Before the University gave up the ranch, we sent Professor Howell down there to succeed Major Bell. The old gentleman liked Professor Howell very much and especially Mrs. Howell because she had been a home economist and at one time connected with the Kellogg laboratories at Battle Creek.

CEH: I noticed that while the Department of Agriculture was trying to persuade you to take the Kellogg ranch back -- the War Department had turned it over to the Department of Agriculture, and the Department of Agriculture eventually returned it to the Kellogg Foundation -- that there was a problem of some competition down there with Cal Poly. Cal Poly wanted the ranch also, to develop a southern campus perhaps, and they claimed that the University's School of Veterinary Medicine was so technical and scientific that they weren't training any practical veterinarians, and that they -- Cal Poly -- would set up a school of veterinary medicine to meet the needs of the farmers.

CEH: I see. Well, I wouldn't put it past them, because that's been their general philosophy in the way of agriculture for a long time. The University, they would say, is too technical and interested only in the training of scientists, and research. Its graduates were not giving back to the farmer what they learned, nor its veterinary graduates going to the livestock areas to practice. Over my entire period of thirty years in the University there has been such conflict as this from time to time between the University and the state colleges. I am one of those who hope that the plan for higher education in California recently approved by the legislature will bring an end to these conflicts.
Oxford Tract, Berkeley

WKB: Some other land problems I wandered onto were the Oxford and Gill tracts. I don't know if they'd belong in this experiment station section, though.

CBH: Yes, those were little plots designed to strengthen the physical facilities for research and instruction in Berkeley, but I would think primarily for research.

WKB: Why don't we cover those, and then we'll have the land problems out of the way. The Oxford tract was quite a problem to the city of Berkeley, I think.

CBH: Yes. Have we discussed how the University acquired that tract?

WKB: We haven't mentioned it at all.

CBH: I did tell you that at one time, approximately at the end of the second decade of this century, that the agricultural people of the state of California were unhappy about the College of Agriculture. I discussed the formation of the old Agricultural Legislative Committee. One of its functions was to see to it that the College of Agriculture had better support. In that total picture was the belief that the College of Agriculture, the bulk of the activities of which were still at Berkeley, needed some more land here. And when the Berkeley fire of 1923 destroyed all the houses that were on the Oxford block there, the Oxford tract, someone, probably Dean Hunt, saw that there was an opportunity to get some more garden space for the College of Agriculture.

Since the University and the city of Berkeley had been threatened by the legislature to having the College of Agriculture taken away from them, some very prominent people in the city became interested in trying to help to keep the college here. So they raised some money from private sources to purchase that denuded block of land on which the homes had been destroyed by fire, bought it, and turned it over to the regents for agricultural purposes. About the same time, the greenhouse range -- now about to be demolished to put in a new building, on the corner of Hearst and Oxford streets -- was erected. Thus the College of Agriculture had for the first
CBH: time good greenhouse facilities plus this area just across the street for small plot investigations and demonstration plots for demonstrating the growing things to students.

So that was the way in which we acquired the Oxford tract. Then set in this period of gradual transfer of many agricultural things from Berkeley to Davis. That's gone on over a long period of time. And for a while the Oxford tract was not too well used, or at least it was used for such purposes that the public, not understanding the use of it or the significance of the things that were going on there, began to feel that the University didn't really need it. And therefore, it ought to be sold and returned to the city tax rolls and apartment houses built there. Or at least the University ought to use it for dormitory purposes or in some way that seemed to them more useful. Naturally I heard about this. Mr. Corley was then a member of the city council and he used to talk to me about it. I didn't pay much attention to them because I felt that it was useful to the University. I don't think I would have ever maintained that we were using it as effectively as it might be, and I had maybe a little difficulty with some of my colleagues in developing more use of it.

WKB: Why didn't you use it more?

CBH: Well, maybe we had overestimated the need, because you've got to remember that in the meantime some of the activities that were going on here at Berkeley at the time it was acquired were later moved to Davis, and the need was perhaps less acute. I had always thought of small garden plots where graduate students might be growing cultures of plants. Take genetics, for example. I suppose the department of genetics and the department of plant pathology made greater use of the tract than the rest of the departments of the college put together. Anyway, it was not too well used. And yet we've always thought of it as an outdoor laboratory. It is still so labeled. The University has built the insectory on one end. The first building there was a greenhouse that was built in the corner for Professor Hoagland's activities in plant nutrition, and it served as that. The surrounding area served as a place to grow plants in pots in
the study of many problems of plant nutrition. That has been use-
ful. But the upper portion of it originally was used by Professor
Clausen in his Nicotiana studies. That's the genus that tobacco
belongs to, although he was dealing with other species more than
he was with Nicotiana Tabacum. It became known locally as "the to-
bacco patch." And why should the college be concerned with tobacco?
Tobacco is not an important crop in California. Well, all of that
was true, but Professor Clausen made a very important contribution
to the tobacco industry by showing how to transfer to Nicotiana
Tabacum from another species of Nicotiana its resistance to mildew.
Now, when you cross the species that had resistance to tobacco mil-
dew with Nicotiana Tabacum, the first generation was sterile. So,
he couldn't in that way pick up that gene or genes for resistance
to mildew and embody it in the germ plasm of Nicotiana Tabacum.
With some interspecies crosses however, involving the species with
the disease resistance and the Tabacum, I think, with still another
species, he found the offspring, sterile and infertile themselves,
were fertile when crossed. Thus by a rather complex and difficult
process he was able to get the gene for resistance into tobacco,
and it's been a great contribution to the tobacco industry, not in
California, but elsewhere in the country.

Of course, a lot of people would say, "You ought to let the
tobacco become extinct, and all of us would be better off," but I
would miss it. So there was a basic study of genetics that has
contributed to the advancement of that science and at the same time
has made a very important agricultural contribution, if not to Cal-
ifornia, then certainly to other tobacco-growing areas of the coun-
try.

Gill Tract, Albany

Now the Gill tract has been used over the years in much the same
way. It was acquired to provide more land for the college in or-
der to keep it here in Berkeley, also.

That was purchased later, wasn't it?
Yes, during the years I was in Europe I think.

In 1927 they began negotiations. It was purchased in 1928.

Yes. Anyway, it was bought mainly for the use of the College of Agriculture. But only a small portion of that tract is good soil, the rest of it is a rather heavy adobe clay. But despite this and up until World War II I was still expecting that this tract would over the years become more and more useful to the college. But with the outbreak of war, the federal government commandeered a major portion of it and built war housing on it for shipbuilders at Richmond and more or less ruined it for agricultural purposes. We might have dug out all the concrete and so on like we did with the foundations of the old houses on the Oxford tract, and restored it to agricultural usefulness, but again, by reason of further developments at Davis and the need of the University for housing purposes, a major portion of the Gill tract will never be used again for agricultural purposes.

And we've had to struggle against the pressure on the part of the city of Albany which at one time wanted to run a street through it to extend Marin Avenue on a curve coming into Buchanan Street, and there's been a demand for part of it for a school site. It is awfully hard to maintain a farm in the city because of various pressures. As I read the picture of the future it's only a question of time until the college will have to give up its use of the Gill tract -- maybe we can retain a small part of the area because we have built some greenhouses there and other physical facilities and maybe these can be held for a while. In the long run I think the chances are that the College of Agriculture's work there will be closed up, particularly if at the same time the work here on the campus is transferred to Davis.

Well, I think it's a good thing if those properties are held so the University can put them to another use.

Absolutely. I've always been opposed to the regents ever selling the Oxford tract, and have been willing as time goes on to grant that other needs in the University will someday transcend the needs of the College of Agriculture. That's approaching pretty closely.
Those greenhouses that have been built there will always be useful for plant sciences here, even in the College of Letters and Science, botany and zoology, other activities.

Of course when it comes to property getting onto the tax rolls, now that you’re mayor of Berkeley you’re sort of in a split position.

Well, I think I would maintain that the University’s reasonable needs come first.

I think the University’s reasonable needs are in Berkeley’s interest.

Yes, surely.

Schmidt Tract, Berkeley

I think that about finishes us up on experimental work unless you think of something else we ought to include in here.

Have we talked about the Schmidt tract in Berkeley?

Oh no, you didn’t mention that.

I know I talked about Professor Lippincott, after I left Davis to go to Europe, getting a little disturbed and urging that poultry be brought to Berkeley, and that was accomplished. First, they purchased this tract known as the Schmidt tract, west of Sacramento Street, between Cedar and Rose streets. There were some forty acres of vacant land in there and the regents bought that and announced they were going to establish the poultry plant that was being moved from Davis to Berkeley. And the people down there around the tract didn’t want a chicken farm in their front yard. So they ultimately forced the abandonment of that idea and as a result the poultry plant was established in Strawberry Canyon on the side of the hill.

Well, later on — this happened in my time — since we had not used the Schmidt tract for anything of importance and it didn’t seem to me we ever would, I recommended to the president that the Schmidt tract be sold. It was sold and returned to the city’s tax rolls, and a nice area of modest homes has been built there. So every once in a while as mayor when I hear people complain that the University takes so much land off the rolls, I remind them of at least one instance where the reverse was true and that I was responsible for putting some forty acres back on the tax rolls!
THE AGRICULTURAL EXTENSION SERVICE

Early Background

Baum: That brings us to the Agricultural Extension Service.

CBH: Well, we've talked a little bit about it. How do you want to attack that? How it was organized in the first place?

VKB: Yes. I'd like to know what different types of things it does, and also how it fits in with the College of Agriculture in an administrative way.

CBH: I'll again have to talk about how it was operated during my time, because there have been some changes, you know.

Well, I think I've traced the development following the original Land Grant College Act. That first act and some subsequent ones were designed to establish the colleges and to promote resident instruction on their campuses. Then the Hatch Act came, in 1887, to establish the experiment stations. In the meantime, before and subsequent to 1887, the colleges, being interested, of course, in farm people as well as agriculture, were doing some instruction away from the campus. It took the form of farmers' institutes where men from the college would go out into the country and lecture, spending maybe a day, maybe just one meeting, maybe two days, and in some cases even longer, lecturing on important agricultural matters.

VKB: Was this an extra service of the professors, or was this expected as part of their work? Were they compensated for lectures?

CBH: I suppose there were various arrangements, but generally speaking this was a part of their total task. But this work grew in importance and in interest, and the farmers began to see the possibilities and the need and the desirability of it, so they prevailed upon their representatives in Congress, with the help, I'm sure, of the Land Grant College Association, to round out the program of the colleges to provide federal funds for extension teaching.

That was the genesis of the agricultural extension act which was passed by Congress in 1914, called the Smith-Lever Act, and
designed to enable the colleges, in cooperation with the USDA, to carry instruction in agriculture and home economics to agricultural people of all ages who were not enrolled as regular students in a college of agriculture. It formed what we very often refer to as the third leg of the tripod of the college of agriculture: resident instruction, research, and extension teaching. It completed the mechanism for the total programs of these institutions.

Now, in order to have a local group of farmers and farm women with whom to work, the USDA and the agricultural extension service in each state organized farm bureaus around centers or community neighborhoods in the counties called farm bureau centers. The USDA and the colleges, working together, formed these farm bureaus and the farm centers took over the job of organizing meetings, developing and conducting programs, and all of that sort of thing.

The Smith-Lever Act also provided for the establishment of county agricultural and home demonstration agents, and later 4-H club agents to provide a staff to represent the college of agriculture and the USDA in the local county. The farm bureaus constituted the mechanism that the agents in conducting their educational work used. The farm bureaus in the counties were subsequently brought together into a county farm bureau, and then ultimately these county farm bureaus were united toward the formation of a state farm bureau, or as in California, a state farm bureau federation. Finally, and quite a number of years later, the state farm bureaus or federations were brought together nationally to form the American Farm Bureau Federation. This today is the largest and politically the most powerful farm organization in America.

It sounds like the farm bureaus were children of the USDA and the colleges of agriculture.

They were.

Are they still associated?

No, not in the sense they were at one time because they were organized originally largely or exclusively for educational purposes and for a long time that was all they did. The details of organization
varied somewhat in different states, but originally they were created for educational purposes. Gradually the county farm bureaus and particularly the state farm bureau federations -- and they use the term "federation" because the unit is still the local county began to expand their activities and took on many other things. They now have insurance companies, or contract with insurance companies for all sorts of insurance protection. They have purchasing agencies to purchase cooperatively all sorts of farm supplies, insecticides, fertilizers, feeds, oil, gasoline and the like. They engage in many activities besides education. I suppose it could be said that education is the smallest in magnitude of all the activities that they now have.

WKB: When did the College of Agriculture decide to disassociate from the farm bureau in California?

CBH: Well, it was never as closely associated with the farm bureau in California as it was in some states. In some states by law the farm bureaus were made a part of the extension service of the college of agriculture. But that was never done in California. Here it has always been independent from the standpoint of organization from the College of Agriculture, but guided, of course, by the Extension Service of the College of Agriculture, and fostered and helped and all of that. I think that even today the director of Extension is the director of the California Farm Bureau Federation. He always was in my time and I think that still prevails.

WKB: Automatically the one position goes with the other.

CBH: Yes.

WKB: Did Extension work with any other farmer organization? Did the grange make use of Extension?

CBH: Oh yes. You see, the extension service itself, nationally, established the farm bureaus. And they've been very closely tied to the extension service. Several years ago the grange and farmers' union protested to Congress that the county agents were organizing farm bureaus and getting members for the farm bureau in competition with their organizations. We never had any trouble of that sort.
CBH: California because we have always maintained complete independence, working with all farmers, whether organized or not.

WKB: The farm bureau and the grange are often in opposing camps on a given political problem.

CBH: Yes. If you want to talk a little bit about agricultural politics, the grange and the farm bureau represent the more conservative elements in American agriculture. The farmers' union is the more liberal if indeed not leftist group.

WKB: Would you consider the grange conservative too?

CBH: In most states. Not in California, though. The grange, you know, is a sort of fraternity, and was established many, many years ago, the first farm organization in America, I guess, certainly the first one that has lasted. In some states it's very, very prominent. In some states, I suppose, the membership of the grange and the farm bureau overlap. But the farmers' union represents the more liberal, the more radical, from my point of view. I should hasten to say that I'm conservative by nature as well as politics.

WKB: But if you wouldn't call the grange in California radical, you wouldn't call them conservative either, would you?

CBH: I have to admit that in California they are, if not more radical, at least more liberal in their basic philosophies than is the farm bureau. That, I think, is largely due to the leadership that they have had in California.

WKB: That's been Mr. George Sehlmeyer for many, many years.

CBH: Yes, he's the leader and he's been master of the California Grange for years, and he's given it a certain tone because over the years the people who he's gathered around him believe, naturally, in his philosophies and they look to him for leadership. The membership is made up of people who believe largely as he does.

The farm bureau, on the other hand, represents the more substantial farmers. By substantial I mean larger operators. Not all are that kind, though. There are plenty of small farmers among the farm bureaus. And I suppose there are a few large farmers in the grange. But farm bureau people by and large throughout the nation
CBH: believe that agriculture should be released from so much government control, that gradually but very definitely the freedom to grow what they will and as much should be restored to the farmer. They are ready to take their chances in the marketplace, even though they know some among them would not survive.

WKB: Did the grange members feel friendly towards Extension, or do they think Extension works too closely with the farm bureau?

CBH: Well, they used to quarrel with us a little bit about that in California. But we tried to make it clear to them, and I think we succeeded reasonably well, that we were not promoting the farm bureau. After the Extension Service organized it, gave birth to it, as was done throughout the whole nation, it began to organize itself and we did nothing toward promoting membership in it. They took that on themselves. But in some cases, in some states, there was difficulty there, and as I have said, the matter even got into Congress. The Land Grant College Association had a committee studying that thing. They got out quite a report on it. The extension services in those states where the trouble was most acute have modified their procedures; some states have changed their laws and the rumpus has quieted down.

WKB: I had read the criticism -- some people claimed that extension was dominated by big business, by which I guess they meant big farmers.

CBH: Yes, that criticism has been made in California too. I well remember some of Director Crocheron's statements on that. He said, "When a man comes in to ask advice of the farm advisor, he isn't asked how many acres he has, or how many animals he has, unless the size of the flock or the herd is an important factor in what the farm advisor is going to advise be done."

Yes, that criticism has been made, but I think it has been made perhaps more as a result of the fact that we naturally are working with the most intelligent and best farmers in California, with those who are intelligent enough to recognize that science has something to offer them. That intelligence, plus thrift and good work habits, maybe ultimately did make them bigger farmers than some of their contemporaries.
In other words, it was the big farmers who were more likely to use their services. But they were available to anyone who wanted to use them.

That's right. The man who was intelligent enough to see the value of this would make more use of it, and the fact that he was intelligent probably was an important factor in his success.

With the close cooperation between the farm bureau and extension, would there ever be any friction between the county agent and the farm bureau officials?

Very seldom. I suppose that over the years there have been times when the farm bureau wasn't too happy about the farm advisor or the county agent in its county. In some states the farm bureau selects him, but in the University we've always retained the right and responsibility of naming, directing, and if need be, firing, the county agent, or farm advisor, as we call them here. We call them all farm and home advisors now.

Elsewhere -- there may be some variation -- but in most of the states they are called the county agent, or the county home demonstration agent, or the county 4-H club agent, because everywhere 4-H clubs are organized by the extension services. The whole 4-H club movement throughout the nation is a child of the agricultural extension services cooperating with the USDA.

Then you retain appointment and control of these farm advisors.

Yes. In some states part of the county agent's salary is actually paid by the farm bureaus. I think that's true in Illinois. But in California that has never been done. The salaries of the county agents here are all paid by the University out of funds derived from state and federal appropriations. Local expenses -- automobile, office expenses, and clerical help -- are paid by the county.

In the early days when Extension work was being started, before we went into a county the county would have to organize a farm bureau and it would have to prevail upon the board of supervisors to make an appropriation to maintain the farm advisor's office. But the salaries for the appointments of the scientific staff, academic staff, have always been provided in the University's budget.
B.H. Crocheron, Director of Extension

WKB: I believe Mr. Crocheron was the director of Extension for a long time.

C3H: Yes, though not the first one. I think the Extension Service was actually organized by the University before Mr. Crocheron came. Professor Warren Clark was the director of the Agricultural Extension first, but I think he served only a few months. Then Dean Hunt brought Mr. Crocheron out from the East and he virtually organized it. He was in that position when I first came to the University in 1922 at Davis, and when I came back from Europe in 1928 he was still director of Extension and continued during my term at Berkeley as dean up until his death.

WKB: When was that?

C3H: Some time during or shortly after World War II. He was here and very active during World War I, for he was just getting the Extension Service organized then.

WKB: What was Mr. Crocheron's background?

C3H: Dean Hunt had known Crocheron as a student at Cornell, when Hunt was professor of agronomy there. Crocheron was a student of Hunt's. Later on, Crocheron established an independent agricultural high school some place in Maryland, I suppose a bit like Cal Poly started out to be in its early days and a bit like the University Farm School at Davis, although his was a separate institution.

WKB: Was it private?

C3H: I can't answer that, whether it was a privately or publicly-supported high school, but it was an agricultural high school and Crocheron was the principal of it. And it attracted quite a bit of attention locally, in the East, because this was a new level of agricultural instruction, you see.

WKB: How would you describe Crocheron? What did he look like?

C3H: He was a very tall, slender individual, with black hair and a dark complexion, a rather handsome rascal, I would say, very neat in his dress and person. Judging from pictures and from what I've heard,
CBH: as a young man perhaps in first meetings some of the farmers may not have been too much impressed because he easily could have been regarded as a bit of a dude. But once they got to know him and to appreciate his sincere, devoted interest to rural people and his determination to do everything he could possibly do, everyone was attracted to him.

Now, he was a rather stern administrator, and his relations with some members of his staff were not always too happy. They had great respect for him because of his ability but some of them, I'm sure, could have wished for a little warmer personality and closer personal relationships. I find it difficult to be at all critical of Mr. Crocheron because our relations were always most cordial and I had great respect for his mind.

WKB: Was he more reserved, or very genial?

CBH: No, he was a bit reserved. It was not easy to get close to him or develop warm friendship with him. But in my opinion he did a magnificent job in organizing and conducting the Extension Service, and his ability was recognized throughout the nation. He was one of the first and one of the outstanding directors of agricultural extension in America and had great influence and constructive leadership among them.

WKB: It sounds like he was quite dignified and reserved.

CBH: Yes, but despite that he was able to gain the confidence and respect of farmers. I know nothing of Mr. Crocheron's personal life — I have said this before, he ought to have married. He was a bachelor. And if I have any criticism at all to offer, it was that he didn't have the help of a good woman in his life. I know nothing of why it happened or why it didn't. It always seemed strange to me because he was a gentleman, always courteous, and a delightful guest to have in your home, as Mrs. Hutchison and I have many times. But for some reason he didn't marry. There was a gap there, let me put it that way.

WKB: It sounds like he was a bit authoritarian.

CBH: Yes, he was, and that's a good word to use in connection with his
relations with his staff. Some of the members of the staff didn't like that trait but they had such great respect for his ability that they went along with him. That was perhaps a weakness in his make-up.

WKB: I think that's particularly hard when you're working with professional people. They don't accept it as much as other people will.

CSE: Yes, perhaps that's true, especially a university faculty. A university faculty is a group of scholars, each competent to a greater or lesser degree in his own field. They are happier and much more productive with the greatest degree of freedom possible. Naturally in an extension faculty scattered over the state there must be some rules, some regulations, some restrictions, some guidance if a strong team is to be created and maintained.

WKB: I understand Crocheron made it a rule never to go to a farm unless you had been invited by the farmer.

CSE: Yes, that was a guiding principle. You might be interested to know why that was. In my generation — well, no, let's go back even further, go back to when the agricultural colleges were established. In those days there were a lot of people, farmers, who didn't believe in agricultural education. They thought the place to study agriculture was on the farm. Agricultural college people were called "book farmers," and were not regarded very highly by some. Now Mr. Crocheron, when he started out to build this Extension Service, did not want to create enemies, he wanted to create friends, and we needed friends in the rural area to establish ourselves. So he and his associates early established the policy of never going on a farm to advise with people, or even to visit with them, unless they were first invited.

They would set up a county office, usually in the county seat, where individual farmers might come for consultation and advice on some farm problem. The county agent or farm advisor would organize meetings at first with the farm bureaus, but open to anyone whose interests were in agricultural matters, where lectures were given and important agricultural problems, local, county, state, or
national, were discussed and studied. Tests and demonstrations of all sorts of improved farm practices were made and at the time when the results of these practices were most evident farmers in the neighborhood would be invited in to observe them. Farmers could thus see the value of these improved practices as demonstrated on the farm next door or at most only a few miles away or, of course, on their own farms. This was what the Extension people called "spread of influence." Several farmers learned at the same time and the following year when they applied the results on their own farm their neighbors in turn learned from them. Because "seeing is believing" these demonstrations removed doubts and established farmer confidence in the very men who had previously been dubbed "book farmers." And it paid off. It was a good mechanism of developing proper entree.

WKB: I understand that the staff of the Experiment Station had been doing some consulting work with the farmers before Extension was established, especially the irrigation investigations stuff.

CBH: Well, all were doing it more or less. You see people were encouraged right from the beginning of the College of Agriculture not only to teach but to do some research. And as they developed their research programs, information that often was useful to people out in the state was assembled. They would be invited out to some farm as a consultant. And they were being paid for it in those days. This consulting business was going pretty strong, and getting rather out of hand when President Wheeler brought Dean Hunt in to straighten matters out.

WKB: I read that some of the men who had been doing this sort of public service, before Extension, were a little bit resentful when Extension came in, and then supposedly all public service from that time on was to go through Extension.

CBH: Yes, and Dean Hunt had a little difficulty at first in persuading some members of his own faculty that this was the way to do it. The principal argument that he had and the thing that he used rather successfully to help him most was to raise salaries.
So that their interest in public service in part was the chance to supplement their income.

Not entirely, but that surely was a potent factor.

Who were some of the other men who were in charge of Extension? Let's see, Crocheron died in the 1940s?

Chester Ruble was one of his long-time immediate associates, as was Leroy B. Smith and J. Ellsworth Tippett. They divided the state up into districts, and Crocheron would place one of the men living in Berkeley and immediately associated with him in charge of a group of counties or districts, as they were called. I think currently these men are called "district directors."

In all of this Extension work did you have to concern yourself much with the problems of Extension, or did the director usually handle most of those?

That was his responsibility, but I was always there for consultation, available for the director or any of his associates to come in to talk with. And I would offer suggestions from time to time, or I might think of something myself and take it to Mr. Crocheron with a suggestion that maybe he'd like to explore this with his staff, and sometimes they would decide that it was worthwhile doing. But since Crocheron carried the primary responsibility, he had a great deal of authority. My interest and responsibility was to keep in reasonable balance the College of Agriculture's tripod.

Organization of the Staff

County Agents

What are the ranks in Extension? What are the titles that the staff holds?

Well, as I have said previously, at first Dean Hunt wanted to use academic titles and these were given the first few appointees. When the academic senate objected to this, the staff in the central office were called supervisors or state leaders, and the county staff were called farm or home advisors. Later on, with Mr.
Crocheron: I devised a scheme in which we had the same four titles, similar titles, with four grades, in the Extension Service as we had in the Experiment Station, all equivalent, we said, to the four academic professional grades. We used the word "agriculturist" or "home economist." Starting with the title of junior agriculturist, we advanced then in time to assistant agriculturist, associate agriculturist, and finally agriculturist. At about the same rate and salary scale as in the Experiment Station, we used similar titles and grades for the women in home economics. Now, those titles and grades are comparable to the Experiment Station titles of junior agronomist, assistant agronomist, associate agronomist, and agronomist. And on the academic side they are comparable with instructor, assistant professor, associate professor, and professor.

WKB: Were they comparable in salary?

Crocheron: Yes, pretty well. Well, maybe they weren't quite comparable in the lower or beginning grades because in the Experiment Station we ultimately got to a point where we required the doctorate for the title of junior agronomist, just as you would in physics for an instructorship. In my time the doctorate was not required for appointment in the Extension Service, although several members had it. They would take youngsters with their bachelor's degree right out of college and make them an assistant farm advisor or junior agriculturist or something of the sort without any formal graduate work. The salary, therefore, for a junior agriculturist in the Extension Service would not be as high as the salary we would pay to a junior agronomist in the Experiment Station because the latter had had at least the equivalent of three years of graduate work over and above his bachelor's. So we took that into consideration.

I had in mind that we would work as rapidly as we could toward requiring if not similar then comparable advanced educational preparation for Extension people as we do for members of the resident staff in teaching and/or research. And I used to say in support of this thesis, "We've talked about the three functions that the College of Agriculture has to do: resident instruction, research, and Extension. And we've said to the world, 'They are equal in
CBH: importance. But on the resident staff we have long required better educational preparation than we do in Extension. So why don't we do it in Extension? Instead, we take a young man right after he's gotten his bachelor's degree, appoint him and give him a year or two or three of experience, and then we suddenly realize — indeed maintain — that he really needs additional preparation, and we begin to think and plan on how he can be released to go and get a better education than he has. Why not require him to have that better education before we employ him in the first place? I hope that day will come, and soon, when Extension Service will do that very thing. Indeed this is beginning in some universities, with greater vision apparently than my own, I regret to say.

WKB: Were all the people in the different counties paid the same, or were some counties a greater responsibility, and therefore would be higher paid?

CBH: No, as I recall we didn't pay much attention to where the man was so far as his salary was concerned. We tried to recognize competence and ability and to make promotions both in rank and salary on merit. Well, naturally in the larger counties where the load was heavier and there was more responsibility probably the trend was for the more able people in the whole staff to sort of concentrate in those important counties. Maybe over the years the less able people, perhaps, were to some extent left in the smaller and less important agricultural counties. I rather suspect that in a few cases that happened.

WKB: I wondered if in the big counties you would have, say, one agriculturist who would be director of the county and would therefore have additional salary.

CBH: Yes, that happened. Several years ago we changed the head man's title from farm advisor to county director of Extension. Naturally this task fell to the older, more experienced and more able people, and some differential in salary was likely to be paid him. The number of people on his staff was a factor too, and this varies depending upon farm population and the diversity of the county's
CBH: agriculture. I suppose there are a few cases yet where there is just one man in a county, but probably not very many any more. In Los Angeles County at one time we had a county staff of twenty people. There were also large staffs in some counties like the great agricultural counties of the San Joaquin Valley and the Sacramento Valley.

WKB: Was there ever any county or local pressure on your selection of county agents?

CBH: Once in a while we've had a little concern there because, after all, these farm advisors are human beings with all their strengths and all their frailties. And sometimes a farmer just didn't like the farm advisor. And maybe if he possessed a strong personality he could persuade some of his fellow farmers that the farm advisor was no good. You see this "spread of influence" that I spoke of sometimes worked to our disadvantage.

WKB: Was this always personal, or do you think there was anything --

CBH: Generally speaking, yes. I can recall few cases that I could not rationalize to myself, and I think reasonably well to anyone else, that it was a matter of personalities. But I must admit that despite all the care taken we did make a few mistakes and sometimes these human beings rather suddenly began to exhibit traits they had not shown before.

WKB: What would you do in a case like that?

CBH: If it got too acute we would move him into another county and in extreme cases advise and encourage him to seek larger opportunities elsewhere.

WKB: He couldn't work with the community if he wasn't popular.

CBH: Surely he's no good in that community, whether it was his fault or not, if he couldn't get along with the people in the community. Even the Methodist Church in my boyhood days would move their pastors on every three years. Then I've seen cases where Mr. Crocheron would move a man from one county to another, because the staff was always evolving. Some people would resign. Some people would die. Some people would retire. There was always an opportunity to shift
CBH: people. We tried to give the men every opportunity of promotion that was available. In all of this it was possible to make changes. A man might have done something that somebody didn't like in a county and get himself into a bit of a snarl. Well, move him into another county. That's administration, Mrs. Baum.

WKB: Keeping things moving, people moving so things go smoothly.

CBH: That's right. If you cling tenaciously to a chart, to the rules, and always "go by the book," you don't need an administrator. All you need is a good chief clerk. These other things that I mentioned, judgment and wisdom, are a part of the process that makes the show go.

WKB: I read somewhere that there was some trouble with one farm advisor up in the gold dredging area. He was advising farmers not to lease their lands for gold dredging and a senator from that county wanted that advisor moved because he was the attorney for the dredging outfit, or something like that. I forget what occurred finally. They put pressure on the University to get that man out.

CBH: I don't remember that particular case, but I would have agreed with the farm advisor, for dredging ruins the land for agricultural use perhaps for all time. I do remember one case -- it didn't have anything to do with gold -- where the senator didn't like the agent.

WKB: Of course a senator can vote against University appropriations.

CBH: To be sure. We were conscious of that all the time. But in the case that I'm thinking of the farm advisor was greatly at fault and did not use the best judgment. I think ultimately the man was removed. But we were careful not to let purely political pressure influence us. Of course, I speak of the time when Mr. Sproul was president. Whenever something like this would come to his attention he would pass it along to us, but he never interfered in any way or implied that he wanted us to pay too much attention to what that senator might be saying. If the senator was right, then of course he wanted us to acknowledge it and act accordingly, but if we thought the senator was wrong we'd stand by our guns, and he would support us.
WKB: I suppose it was Mr. Corley who was more concerned with that.

CBH: Yes. He had to have that senator's vote on University appropriations. But let me say here with equal emphasis that Mr. Corley never asked us to compromise principles for political support either.

Specialists

CBH: There's another group of people in the Extension Service, called "specialists." They were subject matter specialists, like an animal husbandry specialist, a dairy husbandry specialist, a poultry specialist, a vegetable garden specialist, or a specialist in some other agricultural field. By the way, you'll find quite a few men with doctorates in this group of Extension workers.

WKB: Would they be resident in one county or would they move around?

CBH: They were generally but not always resident on the campus where the headquarters of their subject matter department was, and they had their office in that department.

WKB: They would do research?

CBH: No. They were Extension people. They would work with the farm advisors, not so much with the farmers, but they were put in to further educate the -- is there something burning around here?

WKB: I don't smell anything.

CBH: Well, I always burn holes in my clothing with this pipe.

WKB: That's one of the hazards of pipe-smoking.

CBH: Yes.

The Extension specialists were people who were specialists in some field, as the name implies. They were generally housed and lived with the subject matter staff. Take the animal husbandry specialist. Under this scheme he would have an office in the animal husbandry department at Davis. He'd live in Davis. When he wasn't out in the field he would be associating with the staff and kept au courant with all of the research work that was going on there. And whenever he discovered some bit of knowledge that he
thought would be applicable he would carry that knowledge to the farm advisors in the counties where animal husbandry was important and help the farm advisors demonstrate its use to the livestock men.

KB: So he traveled quite a bit.

BBH: Yes. Once a while he would meet with a group of farmers, but his primary job was to keep the county farm advisors informed of the latest developments in his field of knowledge.

KB: Now that sounds like a pretty good job.

BBH: Yes, it was. Sometimes the man was selected from the staff of the department. He may have been previously engaged in research. But he may have also been interested in Extension work and sometimes Mr. Crocheron would pick such a man out of some department and make him his Extension specialist for that field.

Now, at times this scattered situation in the college -- its existence on four campuses -- was a handicap to Mr. Crocheron, particularly in the early days, because he wanted his Extension specialists, in fact his whole staff, except the county people, pretty close to him where he would be able to have conferences with them, discuss methods, etc. It was a little bit like some schools of education which want people to have a lot of instruction in teaching methods maybe at the sacrifice of knowledge or subject matter to teach. And with part of our departments at Davis he was torn between having that Extension specialist right here close to him and a part of his group, or having him live at Davis and come down occasionally.

Now that wouldn't have happened in an institution like Cornell where everything is all on one campus, or Illinois or Missouri or Nebraska. There they could be housed with the subject matter department and still be accessible and close to the Extension director. It took a long time before Mr. Crocheron was willing to station these people in the subject matter department. I had come from Cornell where the extension men were just as much a part of my department as I was, and we had departmental conferences and made plans for the whole work. We would all participate in planning the
extension work for that department. And this man, the extension specialist, was the one who carried it into effect. I was the one who carried into effect and guided what we decided to do on the instruction end, and everyone participated to a greater or lesser degree in research.

I rather liked that arrangement, but I found here in California that our geographical separation of campuses and departments interfered with that. It took us a long time here to effectuate such an arrangement. I think now it's generally accepted that the Extension specialists should be housed, when they are at home, with the subject matter departments.

WKB: Did you have to sell Mr. Crocheron on that idea?

CBH: Yes, and it took a long time. I'm a very patient individual and I don't get excited if we don't do everything today or tomorrow.

WKB: I suppose as dean you could have just set the policy and that would have been that.

CBH: Yes, but I've long since learned that that's not the best way to get things done. I suppose some people such as Mr. Hitler and Mr. Khrushchev couldn't be bothered with this sort of thing, but in an educational institution no one has the corner on all ideas. It's teamwork that really counts, good relationships and so on. And a little persuasion and persistence.

WKB: A lot of persistence.

CBH: Yes, a lot of persistence.

Training of Extension Workers

WKB: What kind of men did Mr. Crocheron try to get to serve as agents or Extension workers. What were their qualifications, what was their training?

CBH: Generally speaking, their training for the county staffs was not as adequate as in my judgment it should have been. I think I have already mentioned that.
Yes, you said you thought they should have Ph.Ds.

At least they should have a period of serious graduate study, not necessarily the same as for the Ph.D., but certainly its equivalent in rigorous mental discipline.

Well now, what was the educational background of most of the Extension workers?

Most of them were graduates of a good college of agriculture and had received B.S. degrees, baccalaureate degrees. Some were graduates of our own college, some from other institutions.

There's another element here that one cannot overlook in the selection of a staff for a college of agriculture, even instruction and research as well as the extension work. Let me put it this way: a good and competent professor of mathematics at Harvard is immediately a good and competent professor of mathematics at California. But a good and competent professor of agronomy at Cornell University in New York State has a lot to learn about agronomy in California.

So you need locally trained men.

Preferably, yes, but you need well-trained people first of all, regardless of where they come from, and then expect them to gain through experience as quickly as possible an understanding of the new environmental conditions that affect agriculture which they find when they come to California, because they are quite different.

Did you get many men from other areas than the West?

I'd say that the bulk of our Extension people came from the West. Perhaps the highest percentage were graduates of our own college. But we've brought in men from Washington State, Oregon, Idaho, Montana, perhaps Arizona, Utah -- quite a few from Utah, because there's a lot of good human germ plasm and ability among the Utah people.

Did I ever tell you a conversation I had one time with my good friend E.J. Peterson, who was the president of the Utah State College of Agriculture? One time after I got acquainted with him I said, "I want to ask you this question. How was the Mormon church
able to gather together such good human germ plasm because I have
great respect for them. We've had students here and we've had mem-
bers of the staff who have come from Utah, all better than average,
let's say, in intellect."

"Well," he said, "I don't know, but maybe this explains it: in
the early days of the Mormon church most of our missionary work was
done in Great Britain, the Scandinavian countries, and Germany."
He was talking about the Nordics and Anglo-Saxons. Hitler went so
far as to call the Nordics the master race, you remember -- mis-
takenly, of course. "So the people who came to the Mormon church
naturally brought a lot of those people to America. And I insist
they brought over a lot of good human germ plasm, men of resource-
fulness, self-reliance, and adventure."

Well, take Brigham Young. He was a great leader of men, whe-
ther you agree with some of his religious beliefs or not. So when
you ask what kind of people we wanted in Extension -- we wanted
intelligent people, able people, resourceful people, because they
were right out there on the firing line.

WKB: They should have been experienced as farmers, I should think, or
with a farm background.

CBH: That would have helped, of course, and I would assume that the ma-
riority of them had had farm experience before they went to college.
But occasionally you would run across a city boy who hadn't had
too much farm experience but who learned fast. And, of course, as
far as the farm practice is concerned, it wasn't the teaching of
farm practice that they were concerned with. Farmers of California
are good practitioners. They know how to farm, so far as practice
is concerned.

What farmers want is scientific knowledge. They want to know
how to control that insect that has come in and attacked their al-
falfa fields, or how to control the fungus disease on their pears
or their peaches. They aren't too much concerned about how to
apply a spray. They knew that, or they can learn it very quickly.
But they want to know what to use and when to use it and what that
product does to destroy these insects.

KB: This sounds like a man who would be a good professor would be a good Extension worker in this respect.

EB: Oh surely.

KB: I should think that they'd have to have a different personality, though.

EB: Why?

KB: I think of farmers having to have somebody who can prove that he can farm with the best of them before they'll have any respect for his other knowledge. Maybe that's not true of California farmers.

EB: No, and it isn't true any more of farmers generally speaking. It was in my day when I first started out.

KB: There was suspicion of the intellectual.

EB: True, but that has largely disappeared because these youngsters can bring science to them, and that is far more important than being able to rope a steer or perform some other farm technique.

4-H Club Work

EB: Let's see... Have I talked about 4-H club work?

KB: No, you haven't.

EB: That has always been an important activity of the Agricultural Extension Service. Farm youngsters, both boys and girls, are organized into clubs.

KB: I occasionally see a group come to campus.

EB: Yes, it's been customary for many years to bring the best of them here each winter or early spring. They go through competitions, you see. First, the local club, then maybe the county, then maybe a district. Ultimately the very best are chosen and brought from all over the state to Berkeley to show them the University, to have prominent people in various parts of the University lecture to them, take them up to the Radiation Laboratory and over to the new music building, maybe to the opera in San Francisco, and otherwise give them a nice time. It's something the kids always look forward
to, and it stimulates their interest.

What is the role of extension in the 4-H activities? They organize them?

They organize the clubs and arrange for local leaders. The 4-H clubs are to rural youth what the Boy Scouts and Girl Scouts are to urban youth as regards character-building, social adjustment, leadership, and education. But the rural youth have one great advantage. They make money on it. They grow their animals and ultimately sell them. They grow their crops, harvest them, and sell the product. In addition to all the other good things derived in participating in youth club activities, 4-H club boys and girls learn to make and handle money. And I've seen many youngsters by the time they are ready for college have a flock of sheep like I did, or a herd of dairy cattle, or swine, or some other flock or herd that enables them to pay their own way through college. And indeed some of them, in cooperation with their father, accumulate quite a little nest egg in this way, and when they are through college they have some money and animals to start farming.

Once in a while I hear Henry Schacht on the radio and he is telling about some 4-H club award or sale.

Yes, all this has been developed by the agricultural extension services of the several states throughout the nation. Probably two million farm boys and girls engage in 4-H club work each year.

It sounds like the 4-H clubs work quite closely with the Bank of America. They give a lot of awards.

Well, bankers all over the nation foster 4-H clubs, give prizes, provide money, and lend other types of support to them, oh yes. The American Bankers' Association, the California Bankers' Association, the state bankers' associations throughout the nation always have agricultural committees. One of the things that those committees of the state and national associations do is work closely with the extension service. In the extension field the 4-H is apt to attract their special interest, and a lot of good, volunteer work is done by their agencies in the field of education. Of course,
the 4-H club leaders are all volunteer farm women or men who gather these kids around them.

**KB:** Oh, the extension workers don't have to be the direct leaders. They just organize the club and the leaders are appointed or —

**CWH:** That's right, and they help to select leaders. Each club has its own leader or leaders. And those are apt to be farm people, both men and women, who are interested in kids. Maybe they have some of their own in the clubs, and Mom or Dad will be the leader of the neighborhood kids.

Oh, I think this is a great educational enterprise. It's done a great deal for rural America.

**Special Services by Extension - the Depression and the War**

**KB:** During the New Deal didn't extension have a number of regulatory duties, administrative duties aside from teaching?

**CWH:** Yes. Not only during the depression, but also during the war we did many things that were anything but educational work. During the depression we cooperated with the Agricultural Adjustment Administration, and during World War II ran the farm labor program. That was done throughout the nation by ours and other extension services because the farmers of America had such confidence in the extension service by that time that they wanted and demanded that Congress assign by law that job to us. And we took it on in the emergency, some of us reluctantly, because it was not educational work, but our country was at war and we were ready to do anything that we could to help win the war. We did that job well, too, but after the war was over we got out of it. In California now the state department of employment handles the farm labor deal. Have you been reading in the paper lately about some investigation of the Mexican labor part of this?

**KB:** Yes.

**CWH:** We used to have charge of the Mexicans when they came in, as well
as some prisoners of war brought over from Europe. We handled the whole thing. We set up a special office for it, and certain members of the Extension staff were assigned, or taken, by Crocheron as his right-hand assistants in this work. They were really given leave by the University and transferred to another organization, but he was running the whole show.

WKB: Didn't that involve you in labor, or union difficulties?

CBH: Yes. And there again is a reason why we shouldn't have been in it from a logical point of view. But it was an emergency.

WKB: I've heard very favorable reports on how that was handled.

CBH: It was, but there were some headaches.

WKB: Didn't you have to handle some of the AAA programs during the New Deal and the depression?

CBH: Yes, we got into some unfortunate things there too, because as soon as we began to get into regulation and control and the handling of subsidy payments to farmers, we didn't think that was educational either. That looked like it was going to continue and be of longer standing. I suppose it could have been argued that that was an emergency too, but we didn't look on that with as favorable a point of view as we did our taking over the farm labor project.

WKB: I think there was some criticism that the extension services — I don't know if of California — that some of the services were dragging their feet or trying to cripple the AAA program because they were not politically in favor of this form of agricultural regulation.

CBH: There was something of that. Some of us again were more conservative than others, and some of us didn't hesitate to tell the secretary of agriculture what we thought of some of the New Deal approaches. He wanted to form an organization on a direct line from his office right down to the farmer, and set up new agencies to deal with it.

WKB: Do you mean not go through the university's extension, set up his own direct agencies?

CBH: Yes.
 Which would do what? Just regulation and payments, or any educational work?

CBH: Well, there was bound to be some education in it, and we didn't like that encroachment on the plan that had worked so well for so long. But it was set up primarily for direct subsidy payments under the guise of soil conservation. The old AAA was the first evidence of this. The Secretary then, Mr. Henry A. Wallace, and the group that gathered around him, got through regulations, the necessary legislation together with their own directives, etc., to have their own group of people working with the farmers, bypassing the extension service, of which other agencies in the Department of Agriculture were a part.

VKB: Wouldn't that have been more satisfactory? It would have kept you out of this controversial area.

CBH: You see, these things are never clean-cut. They're overlapping. The federal government was doing certain things which, as I say, some extension people objected to, or at least didn't endorse. Let's put it this way, it was the early beginnings of activities which some of us thought were quite socialistic -- I suppose all of us today accept some things which when they first began were so strange to us that we didn't endorse them with enthusiasm. Now we shrug our shoulders; and somebody says that we're getting soft.

VKB: Even the post office was socialism at one time.

CBH: Yes, I suppose so. But nobody ever paid them for not delivering mail.

VKB: I'm sure you were around when the parcel post delivery battle was.

CBH: Yes, but I was a beneficiary there. It was the first time I didn't have to get on a horse and go downtown to get the mail.

VKB: You were commenting on the early New Deal measures in agriculture.

CBH: I haven't thought about those things recently.

VKB: Were most of the deans of the college of agriculture who were in charge of extension not New Deal followers?

CBH: It's difficult to say. I hesitate to say that some were not ardent New Dealers. I think some among us were supporters politically of
the Roosevelt administration, but at the same time didn't like some
of the things that AAA did in agriculture. And we like no less
much of the current national agricultural program.

But what you mean is that New Deal is too big a term.

Yes.

I guess national agricultural policies would directly affect exten-
sion directors.

I think most everyone supported in principle the AAA. Some of us
would have been stronger supporters if it had lived up to its title
of "adjustment," but a lot of the things that they've done have
not been to adjust to the new situation, or adjust agriculture, but
to prolong unfortunate procedures, or wrong procedures from our
point of view.

Take the question now of continued payments to farmers to grow
more crops than this nation can consume itself or dispose of abroad.
We are continuing to build up surpluses. The only excuse that I
can possibly think of for doing that is to keep small farmers going.
There ought to be a better way to do that.

You don't favor price supports of any kind?

Well, I have favored them all along, not as a stimulant to induce
more production as they were used during the war, but in an adjust-
ment process, in lowering production gradually to current market
demand with reasonable carry-overs for safety or insurance against
bad seasons or other emergency.

Of course the ultimate solution in my opinion is fewer and yet
more efficient farmers, and all in competition with one another.
Why should we think that it is so essential to the welfare of this
nation to have a lot of small and inefficient farmers? If you just
turn the farmer loose and let the law of supply and demand operate
in the marketplace, the efficient farmer will ultimately survive
and the inefficient will find something else to do. Why shouldn't
they? Don't we do some things now, I admit, and I'm all for it,
in aiding small businesses, I suppose largely through improved cre-
dit? And I believe strongly and thoroughly in the Farm Credit.
CBH: Administration. But I just don't see why we should pay farmers to produce more food than we need, and then turn right around and tax you and I as consumers to pay for that to hold up the price of the food that you and I buy, and price the farmer out of the world market as well. What's logical in that?

KKB: You don't favor tariff, agricultural tariff?

CBH: Not in the long run, because I'm at heart a free-trader. I know that certain industries, even agricultural, in getting started have needed protection, but once they're on their feet and able to compete I don't see any reason why we shouldn't compete abroad.
RESIDENT INSTRUCTION

Davis

Movement of Departments from Berkeley to Davis

By the time you became dean of the College of Agriculture in 1930 the impracticability of having a large part of the agricultural instruction and research in Berkeley had been recognized and the gradual movement to Davis had begun. How was that shift accomplished without any major upheavals?

In thinking of that we can start with the original pattern of all the work in the College of Agriculture at Berkeley. The first things to be moved out of Berkeley were certain phases of our research work which were first emphasized in the south when the Citrus Experiment Station was established. Now the next step out into the state was taken in the north at Davis, and there the original motive was instruction, instruction on a non-University level -- the old University Farm School, a pioneer as far as the state of California is concerned, in agricultural instruction at the high school level.

In order to provide facilities for that instruction they had to have barns, corrals, gardens, fields, orchards, vineyards, etc. And whether it was recognized at the beginning of that development or not, in providing those facilities the University was also providing facilities for certain needed research in those fields. But I'm rather disposed to feel that that recognition came a bit later. The two movements were soon joined, however. The University Farm was established at Davis originally to provide instruction at the high school level, but in a short time those same facilities began to be used for instruction at the University level and also began to be used for research in the Agricultural Experiment Station. The faculty of the College of Agriculture soon began to require students majoring in certain
fields of agriculture to spend one or two or more semesters at Davis, although they were registered down here.

Over the years, then, that set-up became a sort of pattern that could easily be enlarged in a quiet way without any fussing. So in time and gradually, more and more instruction was inaugurated and developed at Davis, accompanied by a lessening in the number of courses in certain fields of agriculture offered on the Berkeley campus. We have now moved all of the strictly agricultural activities -- animal husbandry, poultry husbandry, dairy industry, viticulture, pomology, soils, etc. -- in some fields it's all gone to Davis; in other fields there are still a few things left down here.

W3: I wonder if you could trace the shift of departments from UC to Davis during the years you were dean.

CBH: Well, let's go back to my first connection with the University in 1922, when I came from Cornell as director of what we called the Branch of the College of Agriculture at Davis. At that time headquarters of the department of pomology was here at Berkeley. Headquarters of the department of soils was here. The headquarters of animal husbandry had moved to Davis by that time. Veterinary science was still here. Certainly most of the University work in agricultural economics was here at Berkeley. Maybe there was a man or two at Davis in these fields. I remember there was only one man up there in the field of soils. And there were two or three people up there in pomology, but most of the staff was in Berkeley.

But over the years as facilities have been developed at Davis, the people and their activities have gradually been transferred there. Beginning in 1922 when it first became possible for students to enter there and to stay there the four years, naturally the student body there began to grow, and as the student body grew the instructional staff either had to be built at Davis or had to be transferred from here. As a matter of fact, over the years there has been something of both taking place. Today in many departments all of the Berkeley people have retired, died, or gone to Davis.
The change in pomology, for example, was accomplished chiefly by transfer, but in another department, genetics, the change was brought about by increasing the staff at Davis. Let me illustrate what happened: I suddenly woke up to the fact that each year we would have in the beginning course in genetics at Davis, where it was offered, both semesters, a total of around 300 students. And we never had more than 50 students down here. Thus most of the staff was at Berkeley while most of the students were at Davis.

What would commute to Davis to teach them?

Yes, there was some commuting going on, but the main reason was that the staff had not been increased at Davis, although the numbers of students had. The one or two people at Davis who were teaching this course had most of the students, and the people down here had but a handful, largely because they preferred to live in Berkeley.

That must have been a major problem for you then, to get the staff to move.

Well, I got it started. There was just one man in the Berkeley group, I think, that we transferred. He volunteered to go. To ultimately make the shift and bring our teacher-student ratio on both campuses into better balance, I began to make the new appointments at Davis, and not replace people when they died or retired down here. And over a period of years, you see, you can accomplish a lot in that way without disturbing anyone.

So you didn't transfer people very much.

Not much, except on a voluntary basis, or in the case of young men whose families had not become firmly rooted in Berkeley.

The most striking illustration of this philosophy came about when we decided to locate the new School of Veterinary Medicine at Davis. The staff of the department of veterinary science in the Experiment Station was a group of rather distinguished men. This little center we had in veterinary medicine was known throughout the nation and indeed in Europe. But it was a group of older men plus a few youngsters by the time we had decided to develop
the new School of Veterinary Medicine at Davis. All of these young men but one wanted to be at Davis. They agreed that that was where the new school should be, and were happy to go. Two older people were about to retire at the time, so that caused no problem. The one young man who didn't want to go asked to be transferred to another department of the University, which we were very happy to do. There was left one man, a distinguished scientist who, as I recall, had about seven years or more before reaching the retirement age. I said to him, "We're going to move the remnants of the department to Davis when we get the new building constructed and the new school going. All of the non-academic staff, technicians and helpers, etc., will be given the opportunity to determine whether they will resign from the department of veterinary medicine or go with it to Davis. We just can't give them the choice.

"Now, as for your case, you decide yourself whether you want to go to Davis or stay here, but we're not going to replace any of your colleagues when they retire here -- those two or three who certainly would not want to pull up stakes and go to Davis for the last two or three years before retirement. And two or three years from now you may be a little lonesome. You may stay in Berkeley if you like, but you may want to ponder rather seriously on whether you want to stay here by yourself or be up there with your gang, because your gang is going to be at Davis."

Well, it didn't take him long to decide that even though he had only a few more years with the department he wanted to be in with the gang at Davis, so he moved. But I was perfectly willing to leave him here. He had facilities for research in Strawberry Canyon in the old building there, and aside from daily contacts with his colleagues he would have gotten on quite well.

VB: What courses did you offer at Berkeley in, say, 1930?

CH: Well, by 1930 many of the activities of the College of Agriculture had been moved to Davis. But in 1930 and for several years after
a few professors would commute from Davis to Berkeley, or vice versa, to teach. We had a beginning course in animal husbandry, and in horticulture, and in agronomy at Berkeley. Then we had, even prior to 1930, an arrangement with the College of Engineering where a full four year curriculum in agricultural engineering was offered. Students would spend three years in engineering here and then go to Davis for the fourth year. Later they arranged a plan in which this could be reversed. They may enter at Davis and come down here later for certain engineering courses. And that same pattern has been taken south. They have an arrangement down south where students can transfer from UCLA to Davis for the last year. Recently a complete College of Engineering, as yet somewhat limited in scope, has been established at Davis, the third engineering college in the University.

WKB: Was there much transfer of students in 1930 from Berkeley to Davis?

CEH: Not by 1930. It wasn't clean-cut in any one year. This was a matter of evolution over several years, but for a number of years past there have been very few students transferring from Berkeley to Davis, except when they just decided they wanted to go. Most agricultural students prefer to go to Davis rather than be here at Berkeley.

But we've always had a few students in agriculture at Berkeley and still have. Most here major in agricultural economics, in soils, or in one of the plant sciences -- genetics, plant pathology -- or entomology. These are about all the students have left in agriculture on this campus -- agricultural economics, soil science, entomology, and general science studies. They're all registered in agriculture here. But the agricultural entomologists, the agricultural economists, and the plant pathologists, who presumably will be dealing with agricultural matters, don't have much agriculture -- a rather unfortunate situation, it seems to me.

WKB: So by 1930 Davis was a separate campus and there wasn't as great an exchange of students as there had been previously. How about professors? You say they were still traveling from one campus to another?
Yes, and I presume some still do occasionally.

Didn't you have divisions on two campuses with the same faculty?

Yes. For many years entomology has had a part of its staff and a part of its work at Davis, but Berkeley has been the primary headquarters for entomology. Plant pathology started out with its primary work on the Berkeley campus. Now I would assume that the majority of the staff and therefore the majority of the work in plant pathology is at Davis, but it is still one division.

Were your divisions statewide?

Some were and still are. Agricultural economics had always been statewide, with some work at Berkeley, some at Davis, some at Los Angeles. And I think we set up irrigation in the same way. I'm not too certain about that.

Wasn't irrigation statewide, and then you divided it into northern and southern sections?

Yes, I think that's true. The first work offered in irrigation in the south was given by a member of the staff at Davis who was sent south for this purpose, Professor Beckett. He was followed later by Professor Huberty, who was stationed at UCLA. He too had been at Davis. And in order to keep these things together as much as possible, and to weld as many chains as I could between the four campuses of the College of Agriculture, we tried to form an organization that functioned in keeping the departments together, but it certainly played hob with the chart-makers I was talking about.

In other words, you couldn't set up a campus neatly because part of the divisions would cross over to another campus.

That's right, but we got the work done.

Which organization would you prefer from the point of view of getting the work done, the statewide division or the campus-wide division?

Well, the more chains you can weld between the different groups in the same fields of science at Riverside, Los Angeles, Berkeley, and Davis, the better it goes.

I suppose having a statewide division would do that, wouldn't it?
CEN: Well, I don't know that we need to have it formally organized as a division or department. I suppose the dean of agriculture and the director of the Agricultural Experiment Station can and do function as coordinators, but the closer these campus divisions in the same field can be kept together the better the whole thing goes. We started a plan many years ago to bring all these people together -- I think it's still being continued -- to bring them together occasionally in conference at some place where they could talk about their work, exchange ideas, perhaps arrange for cooperation on some project, just like a scientific meeting, a meeting of some scientific or learned society.

WKB: As things moved out to Davis, did you consider moving your headquarters out to Davis too?

CEN: You ask that personally?

WKB: As dean of the College of Agriculture, did you feel that perhaps you or your successor ought to move out to Davis?

CEN: Yes, I did. And I still think that would be a wise thing to do, provided the University would center all of its work in agriculture at Davis and Riverside.

WKB: Well, when you say that you think the dean should be at Davis, does this mean that the majority of the dean's work involves a relationship within the College of Agriculture? Or isn't a lot of his work with the rest of the University administration?

CEN: I don't believe that administration is that important, although I have given the major portion of my productive life to University administration. I wouldn't want to be a dean, or even a vice-president, of anything and try to operate it under remote control.

When the president first asked if I had any objections to his recommending to the regents that I be made vice-president of the University I said, "Okay, provided that I can retain the title of dean of the College of Agriculture as well." In my part of the University and in the state of California that title meant something in those days. Furthermore, I had no particular desire to give up agriculture and take on a lot of other things in the University -- there were plenty of people around the University who
CBH: probably were better qualified than I to do that. It took two or three years to make this step. He finally said to me, "All right, I'm ready to recommend your appointment to the regents as vice-president of the University and dean of the College of Agriculture."

"All right, Mr. President, there's just one more condition I want to ask for in that connection. I think you know me well enough to know that I am always eager to do anything that I can within reason to help you as president of the University, and certainly to help the University. The condition that I want to impose here is that I still be permitted to live with my group over on this side of the campus rather than going over to the Administration Building." And since there wasn't any room over there anyway, he was quite willing to make that concession.

Buildings and Land

WKB: When you get money for a new building I suppose the problem comes up of where to build this building, on which campus, and there are pressures in each direction. How would you handle a thing like that?

CBH: Well, I think the University handles that pretty well now. They decide where that work should be, and build a building there.

WKB: Does the legislature ever suggest where that building ought to go?

CBH: No, but growers sometimes do.

WKB: Then there is some outside influence.

CBH: Not much. There may be a little outside influence among our friends in agriculture, that's the only thing. But that isn't official, and the only reason to pay any attention to it whatever is in the interest of good public relations. But in my judgment good public relations in a university are best developed by doing something that is good and constructive for the state and its people, by strong leadership and by persuading and convincing people that you are right -- that the University is right in this -- rather than merely listening to the selfish demands of some one or some group on the outside who have no responsibility whatever in the matter. I've
had some experience in resisting such pressures as that, too.

WKB: I can imagine. Speaking of new buildings, how were the architects selected for College of Agriculture buildings?

CBH: I think the architects have by and large been selected by the regents on the recommendation of the president. The president and both his academic and non-academic staffs probably more than any others were responsible for recommending an architect to the regents, and generally the regents followed that recommendation and appointed him. I know that in a few cases I myself have raised objections to some architect because no one liked a building we already had that he designed. These things often are a result of the thinking of quite a few people.

WKB: But ordinarily the president would take the initiative, not the dean of whatever department the building was going to be for?

CBH: Yes, that was certainly true in my experience. I can't remember that the president ever asked me to recommend an architect. In the College of Agriculture the business side of the University, and the president, have made the selections of architects.

WKB: Has this been satisfactory as far as the buildings they built for the College of Agriculture?

CBH: Well, I can point out a few cases where I think mistakes have been made, but I suppose it's as satisfactory as any scheme. I haven't any serious objections; I used to complain a little bit about this extreme modernistic type of architecture that has been inflicted upon the University from time to time. I still don't like it, but I must confess that my ideas have mellowed a little bit over the years. There are certain University buildings that I enjoy looking at much more than I do others, on all campuses. As a matter of fact, right here on this very campus I still think the three agriculture buildings on the little knoll is about the most pleasing set of buildings on the Berkeley campus. I like that type of architecture.

WKB: Did they ask you to tell them what kind of rooms and laboratories you wanted?

CBH: Oh absolutely, and that's very proper. We always had a committee
made up of people who were going to use the building, to work out the interior details with the architect.

I believe that during the years when you were dean the amount of land held by the University was considerably expanded.

Yes. I'm kind of proud of the fact that I was able to persuade the regents to buy 2,000 more acres of land at Davis before I retired. That campus will never have to condemn costly private property as the Berkeley campus has to now in the city of Berkeley to get elbow room to do its job. So far as I can see there will always be plenty of land for agricultural research, although I have heard recently that still more land there is being acquired.

I admitted at the time of the purchases I made that we were acquiring more land than we needed for research in agriculture at that time, and I worked out a plan whereby the excess land would be farmed until it was needed for research. We'd get some returns from it, help pay the University's costs instead of looking to the state for more appropriations. And money that the University can pick up on the side is all to the good, and the excess land will be available and ready when the University's other expansions begin to take place -- and that expansion has already begun. Already the poultry plant has been moved farther away from the campus proper and still more land that was formerly used for agricultural purposes will be needed to provide room for dormitories and other buildings. And our experimental plots, orchards, and vineyards are already a mile or so away from the main quad.

I suppose Davis will be as big as Berkeley some day.

Surely, and if we hadn't gotten this land at the time we did there would have been some sub-divisions on it by this time I would guess. As a matter of fact, the first ranch I got the regents to buy, the owner, Mr. Harold Hopkins, was already planning to sub-divide it. This was during the war. Fortunately I knew him well enough that he came to me and said, "My doctor tells me that I just have to slow down." He was a busy man with many interests, not only in farming but oil interests in the south. "I've got to slow down and
one way to slow down is to sell off this ranch, and I propose to sub-divide it." He'd lived in Southern California. He'd seen subdivisions developed there even before the war. There were not as many as we have seen since, but they were already being used down there. "Well," he said, "before I proceed, I just wonder if the College of Agriculture would be interested in buying this ranch from me."

And I said, "Now, wait a minute. Just give me a little time. My personal inclination is to say 'Yes, we are very much interested,' but I don't have the final authority about buying land. Give me time to put this matter up to the president and the regents." And he did, they went along with me, and we bought it. Now if we had not, we never would have acquired that land. It would have been built upon, ruined so far as our purposes are concerned, or become so expensive that we might have been unable to buy it.

Having got that land I then went in another direction and got another piece of land, and finally we had all but this one tract in between. There the two old ladies didn't want to sell and we ultimately had to take that to court. But I'd bought the land all around it, and it was easy to satisfy the court that that particular 400 and some odd acres was what the University should have, not another 400 acre tract across the road or out of the area entirely. You got to have a little vision in these things, imagination.

Living Facilities of Students and Faculty

In the early days Davis was a very small town. What about living facilities, eating facilities?

When the University Farm was established at Davis there was said to be about a thousand people and thirteen saloons. [Laughter] That was Davis. Saturday nights the ranch hands would come into town for a happy weekend. On Monday morning the ranchers would send the wagons that they drew alongside the big harvesters to
catch the heads of the grain in harvesting -- before the days of
the combines -- those big wagons with their grain beds would
drive into town and the hands would be picked up from these thir-
ten saloons and taken back to the ranch, and after an hour or
so of jolting over the rough roads they were ready to go to work.

I would guess that getting living facilities for students and for
your faculty was one of your primary problems there at Davis.

The regents and the University recognized that and they built
dormitories for the students at once. There were three dormitor-
ies when I first came to Davis in 1922. They housed most of the
students. In the meantime the town had enlarged a bit and there
were a few rooms out in town made available for students by the
residents. And a few local fraternities were built. We took care
of the students in that way. Now, of course, the dormitory situa-
tion has been much improved there in the last few years, and they
are still building them.

I believe in dormitories and student living groups as part
of one's education. And the University has met that problem at
Davis very well.

How about health facilities, doctors?

We have always had an infirmary at Davis. During my early days
we enlarged it from time to time as the needs grew, and now there
is a modern student health center, similar to Cowell Hospital here,
which serves the whole student body in much the way that Cowell
serves here. We had an arrangement with the Woodland Clinic to
handle emergencies -- we didn't have a fully equipped hospital,
but one that would take care of the great majority of health cases
-- so we could telephone to Woodland to send an ambulance down and
take the student there, or, if the case was ambulatory, put the
student in an automobile and take him up. I suppose that same
arrangement still goes on. Dr. Woolsey, who was head of the Wood-
land Clinic, a graduate of the UC Medical School, a prominent Cal
alumnus, and a good friend of all of us at Davis, was put in
charge of the student health service at Davis. Even though he
lived and spent most of his time at Woodland in his clinic, he would come down on call and he was eager to do everything he could to help and it was a splendid arrangement. Woodland was about ten miles away and the people there cooperated splendidly and we met the problem that way without any great difficulty.

Were health facilities a problem for the faculty and families?

I don't think so. I think there were two or three local physicians there, and with the Woodland Clinic and the medical facilities and hospitals in Sacramento, fifteen miles away, I think the medical services in the little community of Davis have been quite reasonable and quite satisfactory.

What kind of housing is there for faculty? Are there houses they can buy when they come in?

Now there's been a lot of development in recent years. In my time faculty people usually had to rent until they could sort of get settled and decide where they wanted to build their own home. And a year or so after they arrived they would be building their own home. So Davis grew rather slowly up to and through the war. But right after the war some of these housing subdivisions developed there and goodness, the town has grown phenomenally — like any other interior valley town in California.

Was housing a problem to the University in getting faculty to come?

It was always a problem, but not insolvable. When we invited someone to come we not only acquainted him with the situation but we pledged to him that in some way we would be able to house him and his family until he could solve the problem himself by building. For many years that was a problem we faced every August as new people were added to the staff. But we always solved it.

In Berkeley when you invited a staff member did you have to worry about his housing, or did he just get along on his own?

Oh, I suppose the University or his department may have referred him to some local realtor, but it was largely up to him. There was only one time, and that was during the war, when housing was so short that housing of new staff members at Berkeley was cause for concern.
Do you have a student union at Davis?

Yes, they built a very nice, small student union there a few years ago, with student offices together with space for a cooperative store. It provides headquarters for the Associated Students of the University of California at Davis, the ASUCD, and their various activities. And part of it is used by the faculty club, which cooperated in its financing.

Now they are just about to undertake the building of an auditorium. The old gym has been used for many years as a recreation hall, a recreation facility primarily for students — they had the dances and other activities there. And there was enough space in there to bring in chairs and have it serve as the local auditorium for University functions. Now a replacement of that is under way.

Did you have any responsibility for students or student government or activities and so on?

No. We had if not the same then certainly a similar form of student self-government at Davis as at the other campuses. We relied, of course, upon the dean of students and the various student counselors. In the College of Agriculture I had some contact with students, but not a great deal. My chief associates, first Mr. Tavernetti and later Mr. Freeborn at Berkeley, and Dr. Howard and Mr. Ryerson at Davis, served as directors of resident instruction. At Los Angeles Mr. Hodgson served in a similar capacity. All of these men had much more contact with students than had I. Occasionally I was brought in, but not often.

At Davis we've always had a very stable student body. Most of them were students of agriculture until quite recently. Those lads knew what they were there for and they didn't concern themselves as much as students in letters and science, let's say, with outside problems. So we had none of this difficulty that seems to be going on now on the campus at Berkeley.

I guess one of the problems here is that the students have been expressing themselves on off-campus issues. Your students were not interested in doing that at Davis.
CBH: Well, they were as individuals, of course, but they didn't try to
develop those things on the campus or take any special interest as
a student body. They were busy and, as I say, all of them were
there for a definite purpose and devoted their time and energy to
University work. I would not want to imply that they were not in-
terested in these things, but there was never any activity as a
student organization on the campus in these matters as we have al-
ways had on the Berkeley campus.

Non-Degree Work at Davis

WKB: At Davis when you became dean was there a great deal of non-degree
work going on?

CBH: There was still some, yes, and only until currently, I think it's
this coming year, isn't it, 1960, when the non-degree work will be
finally closed.

WKB: About how many of the students were in degree work and how many in
non-degree work?

CBH: When I first came to Davis in 1922 there were more students in non-
degree work than there were in degree at Davis. But over the in-
tervening years the regular degree and graduate students have in-
creased in numbers, and the number of the others has dropped off,
until at the present time the numbers in non-degree are very few.
So it was decided a year or so ago to close that type of instruc-
tion. After 1960 no more students are going to be -- well, no --
I think already no more students are being admitted in non-degree
work at Davis, and in 1960 they will all have finished and gone. I
think that decision was made about two years ago.

WKB: Do you think that's a good idea, to close the non-degree work?

CBH: I do. It's not University work, never has been, but it's been
justified in the past because it had contributed a large number
-- well, let's put it this way: it has made possible the education
over the years of a large number of farm boys who probably would
not have had an education at all without this, but since the state
college at San Luis Obispo, the California Polytechnic College, has grown, since they've put agriculture into the high schools and into some of the other state colleges, there is no longer any cogent reason for the University to be operating at that level of education.

I was ready, in theory, to eliminate it sooner, but in practice I was a little hesitant to do that at the time we established the new College of Letters and Science. The old farm school and the non-degree curriculum had helped educate some very good farmers in California, and the alumni among them were awfully fearful that their part of the College of Agriculture was going to be abolished -- and a little jealous of it -- and there was also some opposition to our establishment of the College of Letters and Science on the Davis campus among certain groups of farmers. In fact, a very prominent legislator accused me of destroying the College of Agriculture with this new College of Letters and Science. I'm afraid he didn't live long enough to understand what I was about.

So, we carried the non-degree curriculum longer than was actually needed because in the interest of public relations we didn't want to disturb people until we'd gotten the College of Letters and Science so well established that its own prestige would carry it in the public mind and avoid a fuss.

WKB: I wondered how and why the opposition to the College of Letters and Science at Davis got started.

CBH: They were afraid -- even members of my own faculty -- that the numbers of students in letters and science would exceed that in agriculture and that they would lose something of the agricultural environment on the campus.

WKB: Did you have any curricula for girls at Davis?

CBH: I established home economics first at the non-degree level there.

WKB: I should think you'd have to have some available for girls.

CBH: Well, we didn't at one time, and I wanted some more girls because I thought women would have a good influence on that campus.

[Laughter] And that proved to be true. The kids had gone around in jeans and slacks and didn't look like college students to me
when I first came to Davis — of course, I had come out of the "effete East," Cornell, and I was shocked in a way, though I didn't advertise it, but I was shocked and I hadn't been there long before I thought that it would improve things to have some women students.

I believe in co-education and so, to get it started, I started home economics in a small way. And then the war came and we had to close all instruction on that campus and we never re-opened home economics there on the non-degree level. We'd had a few unfortunate experiences. We'd found that some, not all, of the girls were, shall we say, problem girls — their mom and dad couldn't manage them and they'd sent them off to school and hoped, I presume, that the University in two short years could correct the mistakes which they as parents had made in the fifteen or so years before. These girls weren't much interested in anything on the Davis campus except the boys. They weren't very serious-minded on the whole; some were all right, but some caused problems. After the war I saw an opportunity to use home economics at the University level, the degree level, and to accomplish the same purpose that I had in mind in bringing women students onto that campus.

Meantime, Dr. Morgan had been developing the department of home economics at Berkeley and things were going along all right. So I set up a Berkeley-Davis department and put Dr. Morgan in charge.

VKB: Did you use the same faculty for the degree and non-degree work at Davis, in agriculture as well as in home economics?

CBH: Not exclusively. At one time when the old University Farm School was running it had a separate faculty, but over the years, with the change in emphasis, we broke that down. There were always some people who were concerned only with non-degree work, but generally there was some interchange.

VKB: A faculty member would probably teach mostly either degree or non-degree, but maybe one course in the other?

CBH: Something like that. There was a little overlapping.

VKB: Someone told me that the degree and non-degree faculty had been the
same but that the non-degree students complained that the teaching was over their heads, and therefore they felt they had to get all non-degree faculty who would be better adjusted to teaching without using all those big terms, and so on.

CBH: No, I don't think that was a very serious matter. I think the important thing was to have good teachers, whether they were instructing non-degree or degree students.

WKB: You don't think there's a difference in the way you teach it?

CBH: Well, I think the same educated man could teach degree or non-degree courses, particularly if he had had some experience. Now, young teachers I suppose might have a little difficulty there, and for a while some of our best non-degree teachers were some of the greatest scientists that we had at Davis.

WKB: Oh, that's what I heard, yes. That they taught non-degree work didn't mean that they were not great in research.

CBH: Oh, no. These were some of our best and most experienced teachers because they understood working with those lads. They had worked with farmers, had lectured many times to farmers, and they knew how to put their instruction in terms that these boys could understand. That's what I call good teaching. You don't have to just come up this regulated educational ladder from an instructor to an assistant professor and an associate professor and a professor. That isn't the important thing. The important thing is to be able to present your subject no matter how complex it is in an intelligent and understandable manner. Sometimes the non-degree work requires better teaching. It's hard work. Often a young Ph.D. instructor is a far better instructor for advanced or even graduate students than he is for freshmen, to say nothing of non-degree students.

WKB: In other words, you think the lower levels of teaching require more teaching ability to get the material across and give good work.

CBH: Yes, because you've got to fire the imagination of those students. The upper division student's imagination has already been fired by that time, and it doesn't require as good teaching methods as it does down in the lower grades.
I believe you used to require students at Davis to get some actual practice in farm work, such as working a certain number of hours out in the fields, or doing farm work during the summer. That idea has been rather given up, hasn't it, to make the student work on the farm or do some special kind of manual labor?

Yes, except youngsters from the towns and cities who have had no farm experience. Up at Davis we do have a summer placement service which is run in cooperation with some of the most successful graduates of the College of Agriculture who are now farming, all sorts of farming -- fruits, vegetables, animal husbandry, dairy husbandry. Youngsters who express some interest in some particular type of farming are sent out during the summer to live on the ranch and work. Some of them scarcely know which end of the horse to put the collar on or on which side of a cow one milks because they've had very little experience. And yet they have a very keen interest in rural life and are students in agriculture and they want to learn something about the practical side of farming, or something of farm practices. We've developed this plan to provide that experience.

We've also developed at Davis -- I think it's still going -- some farm practice work during the regular school year, such as how to drive a tractor, or how to drive a plow or some other farm implement, how to operate it, or what to do around the barns and corrals. And that is useful for youngsters without sufficient farm experience.

I should think this would be necessary even in training your scientists who aren't going to be farmers because they would have to demonstrate these things to farmers, and not do it poorly.

If they expect to become Extension workers, yes.

Or even in -- not Extension, in experiment stations, say. Wouldn't the scientist have to look well when he's starting the tractor?

If that is what he has to do, it's useful, of course. Well, anyway, it's useful to know how to do many of these things, and if a student hasn't had that experience as he's grown up, he could spend a few months very profitably in getting it. If he's going to become a specialist in some field, say animal husbandry, he could well
afford to get some special farm experience, even supplementing what he had before. Furthermore, it also does another thing which I think is important. It helps young men develop what I call an emotional interest in agriculture and rural life. Even if they are going to be working in the University is some scientific laboratory, I think that emotional interest is a good motivating force in their work.

I may have said this before, but it bears repeating. If I were to set out to provide the ideal experience and preparation for a research worker in the field of agriculture I would start with a lad who had this emotional interest in agriculture and the greatest possible knowledge of some phase of agricultural production practice. I'd bring him up through a sound, scientific undergraduate curriculum majoring in some phase of agriculture.

After he had done that I'd send him into the basic sciences for graduate study. If he's had the right sort of undergraduate curriculum he already has an insight, an introduction, into the basic physical, biological, and social sciences that are basic to agriculture work. In his graduate work I would have him "plow deeper" into those fields and pick up, as I've often said, a set of tools, to come back into agriculture and use in the study of important agricultural problems. And those tools are to be found in the physical sciences, the biological sciences, and the social sciences. The latter are needed not only if he is to work on the economic side of things, but they are important in other fields because we all have to deal with people regardless of where we work and live in this world.

With the dwindling farm population, are you able to get young men who have the youthful farm experience?

No, not as many as perhaps we should. I'm not selling the city boys short, you understand. Even the lad who has never had any experience on the farm until he comes to college. But I'd help him get that during his undergraduate career by working in the summertime. And then I'd do everything possible to stimulate the
continuing interest there because I think it is a good motivating force, for if there is any excuse for an agriculture experiment station it's agriculture, isn't it? Otherwise we'd be botanists, chemists, physicists, mathematicians, zoologists, and in the field of social sciences, economists, sociologists, psychologists, or historians, or something else.

So an agricultural experiment station is justified in its existence only because of agriculture. Therefore the ideal thing in building the faculty of a College of Agriculture is to find people, as I say, as far as you can, emotionally interested in agriculture. They may not have as much of this as one might ask at first, but they'll get it if they work in an agricultural environment or atmosphere, and that can be developed on the campus of an urban university too.

KH: When you speak of an emotional attachment to agriculture -- I think usually when we speak of farming as a way of life we think of a one-family farm and a little country schoolhouse and all that. Now, I don't think that pertains to California.

SH: Perhaps not as much as formerly, and it's rapidly disappearing elsewhere in the nation. Living right out on a farm, on the land away from the city, I don't know how long it will exist in California. Well, it will exist to a greater or lesser degree for a long time. But the number of people involved, their percentage of the total population of the state is diminishing all the time. Even in some of the best agricultural areas of the state many farmers -- owners or operators -- except the farm workers, live in town and drive Cadillacs out to the farm in the morning. Their families live in town. Their children go to school in town. But not all of them. There are still areas where important rural schools exist, but these are no longer one and two-room schools. They are consolidated district schools, you see: union high schools or union elementary schools, or some other kind of consolidated school. The youngsters are picked up by school buses in the morning and brought to school and taken back home, back to the land, back to the farm home in the late afternoon. I commuted
from a farm home to high school too, but on my own.

Well now, just exactly what part of agriculture do you want these people emotionally attached to?

Anything they do in agriculture.

Is it the fact of growing things?

Well, when I refer to an emotional interest I believe I'm thinking more of the people who are working in agriculture and who are living on the land. I'm thinking of rural life. Now, they may not actually live right on the farm. You can still have a good deal of what I call emotional interest in agriculture even when you live in a small town. There is rural life in the villages of Switzerland, Hungary, parts of Germany, and in Asia; even though the people actually live in villages and go out to the country to work, these are rural communities. But everybody is interested in agriculture. Everybody is interested in a good crop that year, even the doctor, the lawyer, and the merchant. The same thing is true in the rural areas of America.

The welfare of all largely depends on how good a crop the farmers have produced that year -- at least that used to be true before we were pestered by farm surpluses -- because the farmers will have more money. Agriculture is the basic source of wealth of the whole community. All of the people are interested, and should be, and are, I think most of them, in anything that's good for the agriculture of their community. Those are the things I have in mind when I speak of an emotional attachment to agriculture.

Let's look at industry. Do you suppose there is much emotional interest in the manufacture of an automobile on the part of the man who stands in one spot on the assembly line and screws on two bolts and then passes it on to somebody else? Some of them take pride, I suppose, ultimately, in saying we've all made this --

The old craftsman did, but probably not the new assembly line man.

No. I wonder -- No, I think we've lost something, pride of artisanship, in industry.
KB: Well, maybe the farmer is still a craftsman in that he sees the beginning and the end of his crop.

CBH: I'd rather call him a husbandman than a craftsman. He takes pride in his work. He takes pride in growing a good crop and getting the best yield possible, and in producing the best kind of an animal, a dairy cow that gives the greatest amount of milk per year. He's very much emotionally attached to that old cow out there in the barn or pasture.

KB: It's one occupation where you can see your job from the beginning to the end.

CBH: Yes.

Directors of Davis

KB: Who succeeded you as director of the Branch of the College of Agriculture at Davis?

CBH: Dr. W.L. Howard succeeded me when I went to Europe.

KB: He was director there for quite a while, wasn't he, at least ten years?

CBH: Yes, or maybe a little longer.

KB: What was his background?

CBH: Horticulture. He was one of my professors in my sophomore year at the University of Missouri. He served here until he reached retirement age. The administrative retirement age was sixty-five at that time and he went on as a professor until seventy.

KB: When Howard retired I understand there was some trouble in getting a new director, some conflict in getting Mr. Ryerson. It was not agreeable to some people. I'm thinking of Charles Lipman.

CBH: I remember that incident. Dr. Lipman was made a member of the committee to review my recommendation and his objection was not to Ryerson per se, not to his being brought in as director of the Branch of the College of Agriculture — that was his title in those days — but rather to my recommendation that he be given a full professorship. You see, this University had long had the
practice of giving administrative officers academic titles, and Ryerson hadn't come up through the normal channels of assistant professor, associate professor, and professor. He came to us directly from the United States Department of Agriculture, although he had earlier been in our Extension Service here. That was Lipman's objection and he just quietly said, "I don't want to oppose this appointment but I just can't bring myself to approve an appointment to the professorship."

By the way, I encountered a similar situation when I brought Dr. Harry Wellman into the Giannini Foundation directly from the Agricultural Extension and proposed that he be made an associate professor, because he too hadn't climbed the natural academic ladder, though that problem was solved by giving him the title of lecturer for two or three years. I was not too unhappy about this, and Wellman's subsequent rise to the vice-presidency of the University has justified my approval of him at that time.

Lipman told of his point of view himself after he had asked the president to release him from the review committee. I doubt if that's recorded. You speak of trouble -- was there something in the files?

Oh yes, there's material in the files. As you say, Lipman declined to sit on the committee. Was Ryerson's background administrative?

Upon graduation he was, I think, first employed by the Agricultural Extension Service and ultimately became assistant farm advisor in Los Angeles County, where I first came to know him -- although I had met him before through the fraternity of Alpha Zeta. Then he left us to go to Haiti where the USDA was operating a federal experiment station. Ryerson was down there for several years and then came back to the USDA and was engaged in plant exploration -- exploring the world for new varieties of all sorts of agricultural crop plants. He was head of that office for a while. Then, when Henry Wallace became secretary of agriculture under Franklin Roosevelt's first administration, he made Ryerson chief of the bureau of plant industry. He was finally given a post in sub-
tropical horticultural work in Southern California and stationed at Riverside.

Was Mr. Ryerson mainly an administrator, or mainly a scientist?

I would say mainly an administrator, although he had done some scientific work.

So this would fit him very well as director, but I can see why Mr. Lipman wouldn't think he should be a professor.

Yes, I think that's a fair analysis of Lipman's point of view. He had no objection to Ryerson being made director, but he thought we were stretching the academic side of it a bit by making him a professor when he hadn't really taught in any university -- that this was an unwise exception to a very good rule and might set an unfortunate precedent. I suppose had there been further opposition on the same thing by other members of the committee I wouldn't have pressed it with the president, but --

Was his title then Director Ryerson?

Yes, the title at that time was director of the Branch of the College of Agriculture at Davis. Later on I had another idea and the president and the regents approved. In order to promote statewide unity I conceived of the plan of operating the dean's office on four campuses. On the two where there were students -- Davis and Los Angeles -- I would have an assistant dean of the College of Agriculture in charge of our work there. At Berkeley my first assistant would have the same title and would be in charge of the whole college whenever I was absent. And at Riverside I would use the director of the Citrus Experiment Station as my immediate administrative associate on that campus. That is the pattern that I set up. That operated pretty well too, despite the fact that some
people began either to be dissatisfied or to raise their academic eyebrows a little bit as to why a man in charge of the campus at Davis, our largest and in many ways most important center, should be an assistant dean rather than a dean. But that never bothered me; I saw no reason why an assistant dean couldn't be addressed as dean without too great an affront to his pride.

WKB: There was no provost there.

CSH: No. This was while Davis was still a college campus, not a University campus, and before the present campus plan of administration was adopted by the regents.

Now we got into some difficulties on the Davis campus because Mr. Ryerson was, during the war period and after, away much of the time on government service. He was somewhat in the position that Mr. Tolley was in. We got along during the war because there was a good highway between Berkeley and Davis and I went up about once a week. I did that for some time. We had a good group of people there who didn't need direction and we got along very well. If someone who wanted to see me was away the day I came up, and his problem couldn't wait, then maybe the next day he'd get in an automobile and drive down here to see me.

WKB: I got the idea that Mr. Ryerson was good in public relations with people outside the campus, like regents, but that he wasn't so good at relations with his own faculty. Maybe because he was absent so much.

CSH: Yes, I think that was the basic reason. You can't expect to develop good relationships just because you happen to sit in a particular chair. You have to win the confidence of your colleagues in a university by being useful and helpful. He was away so much — his interests were too much outside the University, not just outside Davis but outside the whole University — and that's too important a post at Davis to operate in that way.

WKB: Wasn't he willing to give up those outside commitments?

CSH: Well, he didn't.

WKB: I imagine during wartime it was hard to refuse.
SH: True, and we didn't. We got along pretty well during wartime, for instruction was temporarily closed, and I don't think his presence was missed as much during the wartime as it was afterwards. Whether rightly or wrongly, a number of his colleagues had the feeling that Ryerson just wanted to use the University of California as a home base. I think that was why the faculty at Davis were unwilling to consent to his being made provost there when that office was set up.

He was transferred here as one of the three deans of the College of Agriculture, the college now being just an academic organization. Professor Briggs at Davis, Ryerson here, and Hodgson at UCLA are the three deans of the faculties of agriculture.

KB: It was apparent that the faculty at Davis would not accept Ryerson as provost, and then there was objection from certain outside people -- I think Regents McFadden and Gus Olson objected to that.

SH: Did Admiral Nimitz?

KB: I didn't see a letter from Nimitz. Maybe he did personally.

SH: They were good friends. During the war Ryerson was in charge of a project to grow vegetables for our troops in the Pacific. He was back and forth and saw a good deal of Nimitz in Honolulu.

I had nothing to do with that controversy. That was in 1952, just after I retired. But I understand it perfectly well because McFadden was a life-long friend of Ryerson's. McFadden was a prominent farmer, a citrus and walnut grower in Orange County and president of the Walnut Growers' Association for years, and very prominent in agricultural circles throughout the state. And Ryerson, a horticulturist, working as assistant farm advisor there, formed friendships with him and many others. Later on Mr. McFadden was president of the state board of agriculture and an ex-officio regent and chairman of the agriculture committee of the regents and quite naturally was interested both in the new position at Davis and in Ryerson personally.

Olson was a new regent at the time and very much interested in Davis, in fact I'm told that when Governor Warren made him a
regent of the University one of the special instructions that
the Governor gave him was to watch out for the Davis campus.
If Regent Nimitz was in the picture it was because of his wartime
contacts and personal friendship. You see, therefore, that under-
standably the views of these men were colored or affected somewhat
by personal friendship.

I believe in friendships and these things too, but I don't
think it's the best basis on which to build a University faculty.
I think I can truthfully say that I have never permitted personal
friendships to affect my judgment as to what was good for the
University, or my cold appraisal of the competence of any man I
have brought into the University. I have made mistakes, to be
sure, for sometimes men do not prove to be what you thought they
were, but I don't believe they were caused by friendship.

UCLA and Riverside

Background of the Citrus Experiment Station

Shall we talk about the south?

All right.

Let's go back to the time when it became evident that we could
not study citriculture on the Berkeley campus, so early in the
century the Citrus Experiment Station was established, first lo-
cated at Whittier, then moved to Riverside, to the Rubidoux sec-
tion of Riverside, and then finally across town to the Box Springs
site, where it presently exists. That campus of the University
until recently was a function of the College of Agriculture ex-
clusively. The college developed it for research purposes, pri-
marily in citriculture, but we ultimately began to do work with
other subtropical fruit crops, such as avocados. It became,
broadly speaking, a subtropical horticultural institute, and it
existed as a College of Agriculture campus until after the war
when the decision was made to establish a College of Letters and
Science on that campus.

So Riverside, then, became our center for research in citrus culture. The center for instruction was still here at Berkeley.

KH: Oh, is that right? In citrus culture?

CH: In citrus culture. All the instructional work that the College of Agriculture was doing in citrus culture up to the mid-twenties was here at Berkeley. It ultimately was recognized by the University, particularly the people in the College of Agriculture, that it would be better to offer instruction in subtropical horticulture some place in the south where such instruction could have the use of orchards, groves, and the physical facilities needed in that instruction -- exactly the same pattern that forced us to take instruction in other agricultural fields from Berkeley to Davis. The first attempts at instruction in the south were confined to the summer session because we didn't have faculty and facilities down there. For a few years -- I don't remember how long -- instruction was offered in the south during the summer session at Riverside by the faculty of the department of subtropical horticulture here at Berkeley.

KH: Was this for graduate students only?

CH: No. That was undergraduate instruction. So that was the first step to see how it would develop by giving instruction during the summer sessions. That was a pretty good time of the year to be dealing with these crops -- naturally not as good as if you could trace the crop's development throughout the whole year -- but it was an important step forward over what had been done before.

Subtropical Horticulture Established at UCLA

CH: That started, I think, a few years after the old teachers' college at Los Angeles became the Southern Branch of the University and it, as you may recall, was located on Vermont Avenue. Soon after came the movement to establish a new campus for the University in the south, one on which there would be more room for growth than
the Vermont Avenue area. The decision was ultimately taken to locate the new campus at Westwood, a small center in west Los Angeles, where the first steps were taken for the development of the great campus which has grown into the University of California at Los Angeles.

In the studies, conferences, debates, and everything about the location, which took place both publicly and within the board of regents, which led to the selection of the present site of UCLA, there was a strong insistence on the part of the agricultural people in the south that on this new campus there be developed a home for the department of subtropical horticulture. That was incorporated in the plans and, from the public point of view at least, proved to be a rather important factor in the initial movement to develop the UCLA campus.

There was a group of very influential men engaged in the citrus industry, in the walnut and avocado industries, and in other agricultural industries in the south. Strong supporters, people who had had something to do with the establishment of the Citrus Experiment Station, were now taking the next step to prevail upon the University, and to enable it, to develop instruction in these fields of horticulture in the south. A piece of land, originally forty acres, was set aside on the UCLA campus for subtropical horticulture. That has been whittled off, a little at a time, over the years, as other University needs have pressed against agriculture so severely that the original amount of land set aside for agriculture has been greatly reduced. I'm told that these pressures have been so great that the ten-acre orchard which was developed there and planted with various citrus species has now given way to the pressure for parking space on the campus.

But originally agriculture was one of the major factors in the establishment of UCLA?

I don't know that we could call it a major factor, but it was certainly an important factor because of these great agricultural industries in the south and the interest that leading citizens of the south took in agriculture.
WB: Did you pick up your subtropical horticulture faculty and move them down there?

CBH: Yes, ultimately. Until the new campus was ready for use, the instruction was given out at Riverside. The department of subtropical horticulture was not large. I don't suppose there were over three or four people in it. But they were transferred south, set up their headquarters at the old Vermont Avenue tract, and then went out to Riverside to offer the instruction in the summer session.

In connection with this development, when the regents took over the Los Angeles Teachers' College and made it the Southern Branch of the University it soon became evident that the old Vermont Avenue tract was totally inadequate as a University campus. So the regents asked the legislature for authority to sell that campus and use the proceeds from the sale in the development of the new campus. And this group of horticulturists in Southern California that I've been talking about tacked on two riders to that bill in the interests of subtropical horticulture in the south. One was to set aside $125,000 from the proceeds from the sale to be used to construct a building for entomology on the Riverside campus, and $150,000 to be used to construct a building on the new campus for subtropical horticulture. That shows, you see, the interest and, if you want to say so, the political power, of these people who were interested in doing everything they could to help the University improve its facilities to serve the subtropical horticulture industries of Southern California in the best manner.

WB: Do you recall who any of these men were?

CBH: Mr. C.C. Teague, Mr. A.C. Hardison, Mr. A.J. McFadden, Dr. George P. Clements, director of the agriculture department of the Los Angeles Chamber of Commerce — I think that was the core of this group of very prominent, very influential, and very able people. Those, and others like them, are among the people that have, in my generation, built the agriculture of Southern California. They had organized themselves into a committee to deal with the University on these matters; it was a strong group of fine people.
All of this happened while I was in Europe, and when I came back from Europe in October 1928 I discovered that some important things had happened while I had been away. One of the tasks I took on in returning as director of the Giannini Foundation was to serve as a sort of an associate director of research; once the Giannini Foundation was underway I planned to browse around through the whole program of agricultural research in the Experiment Station and do what I could to encourage and help the staff in the most productive manner.

So this new development in the south at UCLA interested me greatly. I recalled that in most universities the college of agriculture's buildings are off on the periphery of the campus, because the staff likes to be close to their land, barns, corrals, and fields, etc. And that has tended to make a little division sometimes between the college of agriculture and the rest of the university. And I was sort of imbued with the idea, and have always been, that a college of agriculture ought to be an integral part of a university. So I went to President Sproul -- that was before he became president, he was still comptroller and vice-president -- and asked him what he would think of using that $150,000, set aside for a building for subtropical horticulture, to complete the physics-biology building, build a wing on that building, right on the quad, and house our people in agriculture right there in the midst of the University.

He liked the idea and suggested that I consult with some of the leading men down south who had been instrumental in this whole business and if they agreed he would be happy to join me in discussing the proposal with them. In those days the regents had headquarters on Hill Street in a building where they maintained their Los Angeles office. We met there one evening with Mr. Hardison, Dr. Clements, and Mr. McFadden. And Mr. Sproul and I talked to them about this idea.

VKB: Mr. Sproul was convinced?
Oh yes, he saw its significance at once. Remember, in those days the College of Agriculture had not yet been admitted to full academic fellowship in the University.

So we met with these people and they liked the idea too. They said, "Now, the next step in this is to get a few more members of our committee together and go down to Andreas Canyon." There is an Andreas Canyon Club near the city of Palm Springs of which Dr. Clements was one of the originators and prime movers. Down there on the desert we met with a half dozen more members of this committee, over a weekend, in a delightful environment. We talked to them about the idea and they liked it.

What sort of a club was this?

Well, it still exists. It's a social club.

I can't talk much about the Andreas Canyon Club without speaking of Dr. Clements. He was a country doctor practicing in Nebraska in his early days and his hearing failed and he felt he had to give up his medical practice. He came to California and bought a little ranch -- perhaps it was out near Riverside -- became interested in agriculture, and the Los Angeles Chamber of Commerce people heard of him, or he made them know he was around, and so they asked him to develop an agricultural department of the chamber of commerce. That was where I first knew him. He was known all over the state, and he built a department of the chamber of commerce that had great constructive influence in the development of agriculture in Southern California. He was active particularly in the south, where he was associated with such men as Mr. Teague, Mr. Hardison, and Mr. McFadden.

Well, I don't know how this club got started, but a few people in Los Angeles bought two sections of land, 640 acres in each section, and a stream of the Andreas Canyon runs right across both sections of land. They built individual cabins out of stone; the whole mountainside was covered with slabs of some sort of stone of a red-brownish color. Several of those scattered around in various places where they could devise a driveway up to each cabin...
there must be a dozen or more such cabins there. Then they have a clubhouse where parties could go, and I've been there many times.

The weekend I'm telling you about was such a successful enterprise that we began to go practically every year. Mr. Sproul and I first, of the University, and then later on Mr. Corley was added, and then still later on Professor Hodgson, and Ryerson when he came back, several College of Agriculture people. We would talk about agricultural problems in Southern California and generally in the state, particularly if we had some project that involved legislation or serious consideration of procedure, let's say, and then we would go down on Saturday afternoon, have a wonderful dinner, and sit around the table, maybe 'till midnight, in a talkfest about various matters. Some of the men would take sleeping bags along and there were some steel cots there.

VKB: It wasn't very luxurious then.

CSH: Oh, no no. Just like camping out, virtually. Dr. Clements would usually take President Sproul and me up to his cabin where he had comfortable beds; at least we didn't have to carry our sleeping bags with us. And then again Sunday morning we'd have a good breakfast and sit around again or go out, walk up and down the canyon and visit with each other and talk, and the party would break up soon after lunch on Sunday. I think it's still going on. I haven't been there since I retired.

VKB: How long did you go to these affairs?

CSH: I think the first time I went down was in February 1929 because I had come back in the fall of 1928 and I got into this matter of location of the building on the UCLA campus, and every year until -- well, I was away in 1952, I was going to say until I retired -- but 1951 was the last time I was there.

VKB: In 1929 was it already established, the club?

CSH: Yes, it was already established, and Dr. Clements had been using it for just this purpose. He would take groups of people down there that were interested in some matter that they wanted to get together and talk about, and that had been going on for several years.
Was this club mainly used for University of California problems?

No, it was just a social club, a group of people who liked the desert, liked to be in it, and they'd go down, individuals would go down, over the weekend. But they had this clubhouse where larger groups could gather; there was a fireplace in it where you could roast steaks.

It was mainly people who were interested in agriculture?

Yes. The group that I was with were businessmen and farmers, and cooperative marketing officials.

Were the people who owned the cabins mainly leaders in agriculture in some way?

Some of them were, not all of them. Dr. Clements had a cabin there, Mr. McFadden ultimately built a cabin there, Professor Harry Smith, a distinguished entomologist at Riverside, before he died he had built a cabin there, and there were others who -- there were some other cabins there but I don't recall, I don't remember their names. When I first went down there I'm sure there weren't over half a dozen cabins. Now maybe they have elected more members to the club by this time and more cabins have been built.

When you think of Palm Springs you think of very luxurious living.

Oh, yes. Nothing like that, nothing like that. Dr. Clements was very much interested in the Indians that owned much of the land there in Palm Canyon. They charged admission to Palm Canyon, and Dr. Clements played an important role in getting the Indian Service to do that. Maybe he had to get some legislation through Congress, I don't recall, but he was the chief of their tribe in their hearts and minds, and he knew many of them and they had been very fond of him, and by getting this provision approved by the Office of Indian Affairs it provided income for the tribe and contributed substantially to their welfare.

How did Dr. Clements manage when he couldn't hear? This sounds like he got into a business that required more hearing than as a physician.

Well, he used a hearing aid.

He could hear well enough with its help?
CBH: Oh, yes. He used to tell us sometimes, he said, "I have the advantage over the rest of you fellows. When I get tired of hearing you talk I just turn this off." He was a grand person and did a lot for Southern California.

WKB: Did Mr. Sproul have anything to do with founding that club?

CBH: No. I think this time in 1929 was the first time that Mr. Sproul was ever in the canyon.

If we had a problem that we wanted to sound out public opinion on or to discuss with people interested in agriculture -- naturally I originated most of the ideas because it was a good audience to test my thinking with on some important development that I wanted to make in the College of Agriculture in the south. So we just formed the habit of getting this group together once a year there; in the wintertime, when the desert was sometimes blossoming with flowers, it's the right time of year to go. It was a good thing for us, a good thing for the University.

WKB: Sounds like a pleasant way to do business. I gather there were only men there, not wives.

CBH: No, no wives. This idea of University conferences going off some place, you know, is common practice today. It wasn't in those days. This was the only one I participated in, and it wasn't a University function, it was a private affair. Everybody paid his own way and so on, but it was a delightful outing and an opportunity, as I say, to learn what some prominent, able people in agriculture felt about what was going on in the college or in the state.

WKB: What was the outcome of this meeting in 1929?

CBH: Well, at last they said, "All right, the final step in this is to get the whole committee together." That whole committee consisted of say fifteen or twenty people.

WKB: What committee?

CBH: They called it the committee on subtropical horticulture, I believe, the committee that I've been talking about that was determined to provide agricultural facilities on the new campus at Los Angeles.
When the whole committee met it assembled in the headquarters of the California Walnut Growers' Association in Los Angeles. And the whole committee endorsed my proposal. In the meantime some of the members of the committee I had been working with brought along to that meeting the state senator from Ventura County who had introduced the original legislation to set aside some money from the sale of the Vermont Avenue tract for agriculture. He agreed that at the next session of the legislature he would introduce legislation to modify that earlier legislation because it called for "a" building, and what I was talking about was a part or wing of a building. Just a little technicality which Mr. Sproul had pointed out to me. So that was why our department of subtropical horticulture, when it moved out to the new campus, was set right down in the middle of the campus.

WKB: How did that work out?

CBH: It worked out splendidly. True, later on as the department grew they've been a bit cramped, but so was everybody else in the University there for several years. What is important is that we established a branch of the College of Agriculture very well on the UCLA campus, and ever since it has been regarded as an integral part of the campus.

WKB: Has this made any difference in the contact between the faculty of the College of Agriculture and the rest of the University?

CBH: I think it has. I wouldn't want to say that it was the primary factor, but it is one thing that has made us a real part of that faculty right from the beginning. The college was warmly welcomed on the UCLA campus. Sometimes I used to think that their welcome was too warm because at times I don't think they were critical enough of us and maybe for a while we got things too easily.

We've already talked about that period in the College of Agriculture's life when its work wasn't as substantial as it should have been, and I could count on sound and constructive
criticism of our activities on the Berkeley campus. But I could not get too much help in that direction, the help that I really wanted, down south. They really were too generous with us.

WKB: Well, by that time hadn't the College of Agriculture established a good scientific and academic reputation?

CBH: It was beginning to. Yes, I would say it had, and perhaps that is a factor I should not overlook. But sometimes I personally felt that we needed a little more critical analysis of our activities by our associates in other fields in the south. It wasn't serious, mind you. I don't know why I should mention it, but there was a little difference in the general attitude of our academic and scientific colleagues here on the Berkeley campus toward our work, and that did not prevail during our early beginnings down south. And this wasn't strange, because the UCLA campus was going through the metamorphosis of changing from a teachers' college to a first-rate university, and that's always a hard struggle. They were still under the domination of a faculty that had been assembled for a teachers' college. That's somewhat different from a faculty that has been assembled in and for a university.

WKB: In other words, they hadn't yet developed as rigid standards as had already been set up here at Berkeley.

CBH: I think that's a fair statement.

WKB: So that they were going through the same thing that you were going through with the College of Agriculture, trying to tighten up the standards.

CBH: That's quite right. That puts it very well.

WKB: Well now, what exactly did you offer at UCLA in the way of instruction at that time?

CBH: At first it was subtropical horticulture. That meant citriculture and work with several other subtropical horticulture plants. Later on we added floriculture and ornamental horticulture. And that, by the way, is the purpose of all the work out at Riverside. We developed at both Riverside and UCLA some other things like entomology, plant pathology, soils and irrigation, plant nutrition
-- the branches of biology which are basic to subtropical horticulture work -- together with agricultural economics.

What about the animal sciences?

We have never developed any work in the animal sciences in Southern California except down in the Imperial Valley. The policy has been, over the years, for the College of Agriculture to concentrate all of its work in the animal sciences at Berkeley and Davis, and primarily at Davis.

I notice you ask in one of these written questions about efforts to develop work in poultry husbandry at UCLA, also. Well, the poultry industry, of course, is scattered all over the state of California. Southern California has always had a rather important segment of it. There were a number of very influential poultry growers down there who talked about and urged upon us the establishment of a department in the south. They recognized we had to have one up here, but they wanted one down there also, despite the fact that we have never had very many students in poultry husbandry any place. We felt we could provide all of the instruction needed better at Davis and Berkeley, that it would be an unnecessary expense to duplicate it down there.

Finally, it became pretty evident to me, and ultimately I think to the people who were pressing us for this development down south, that what they were really talking about was research and Extension work rather than instruction. They were worried about certain problems that they had down there, diseases and nutritional problems and other things. So we thought the best way to solve that would be to provide through Agricultural Extension Service the means of carrying information to them and helping them with their problems, no matter where that information was created.

But for a while -- I suppose you might charge it up to an attempt at good public relations -- we did have one or two people stationed down there for a few years in a little laboratory maintained by the poultry department and the veterinary science department to study diseases and nutrition. I think that was set up at
Pomona. It existed for, oh, maybe ten years. Finally that was closed, as we were able to strengthen the research work at Davis and Berkeley and Extension work in the south.

Welding the Chains Between UCLA and Riverside

CSH: All right. In the meantime we were attempting to strengthen research work, primary research work in citriculture and other subtropicals out at Riverside. But as I've explained before, I'm one who believes that you cannot divorce university instruction from research and have university instruction left. So we made provision through equipment and every other way for our staff stationed at Los Angeles not only to engage in research as well as teaching on that campus but to develop close contacts with Riverside, good working relations with Riverside, and where possible and feasible conduct some of their work at Riverside, especially that which requires more extensive plantings than our limited land area at Westwood would admit.

VKB: By equipment you mean cars?

CSH: Cars, yes, but laboratory equipment, and greenhouses, as well, and all the various things that a college of agriculture has to have to do its work.

So we have always tried to develop close relationships between the Riverside and Los Angeles groups, using exactly the same pattern which has prevailed here in the north between Berkeley and Davis. The only difference is that in the south we started at Riverside and then attached ourselves to the University at Los Angeles, because Riverside was started long before the Southern Branch of the University -- ultimately UCLA -- got started.

Our people were all members of the Experiment Station whether they lived at Riverside or Los Angeles. The people that lived at Los Angeles all had Experiment Station titles in addition to their academic titles, and for a time we would give the chairman of a department in the Experiment Station at Riverside an academic title
because we had to have somebody there to serve in graduate instruction, if for nothing else. It was also desirable, we thought, to have some people out at Riverside with an academic title to help promote good working relationships between our two groups and between them and other University departments.

How to tie these things together? Well, I first created on paper what I called the Branch of the College of Agriculture in Southern California, consisting of the staff of the Citrus Experiment Station and the staff of the divisions that we set up at Westwood -- the divisions of subtropical horticulture and the other divisions. Take entomology, for example: we moved a man from Riverside to Los Angeles to give instruction in entomology there, taking him out of the division of entomology of the Citrus Experiment Station. We did the same thing in plant pathology. But both were still members of their respective departments at Riverside. The divisions were divided between Los Angeles and Riverside in exactly the same manner as the divisions were divided between Berkeley and Davis in the north.

WKB: And the chairmen of division or department functioned both places?

CBH: Yes.

And since the development at Riverside preceded the development at Los Angeles the flow was mostly from Riverside back to Los Angeles. That was just the reverse of the situation here in the north where these things started at Berkeley and spread out to Davis. Prior to the Los Angeles development our chains extended directly from Riverside to Berkeley.

WKB: Were faculty members or members of the Experiment Station who had to move from Riverside to the metropolitan center any happier to move than the faculty members you had to move from Berkeley to Davis?

CBH: I can't remember encountering any difficulty whatever. After all, they were moving from one urban area to another, albeit a larger one. By and large I think the people out at Riverside, when you put it right down to the individual, liked to have students around.

There was a time when the staff of the Citrus Experiment
Station fought bitterly, and I think wisely, a movement to establish at Riverside something like the old University Farm School at Davis. Some people in Southern California at one time wanted Riverside to become a Davis.

VKB: A non-degree vocational agricultural school.

CSH: Yes.

VKB: Down there did you expect your students from UCLA to go to Riverside?

CSH: Only on field trips. All of the undergraduate instruction was given at Los Angeles, except for field trips to Riverside or elsewhere.

VKB: So that was strictly research at Riverside, experimental.

CSH: Yes, with a limited amount of graduate work.

VKB: What was the average pattern for students at UCLA? Did they do all their undergraduate work there at UCLA?

CSH: Yes.

VKB: And then did they do graduate work at Riverside, or did they come up then to Berkeley?

CSH: At first I would say there weren't many graduate students, and those usually came to Berkeley or even Davis for graduate work, but as UCLA's facilities for graduate work improved some, maybe most remained there. I suppose some of them spend some time out at Riverside. There's no reason why they shouldn't. And I suppose occasionally some still might come up here to Berkeley or Davis, depending upon their particular field of interest and who they wanted to work with.

Let's put this business of student transfers this way. Ever since we moved the department of subtropical horticulture to the south we've had three places -- Davis, Berkeley, Los Angeles -- where students in the College of Agriculture could enter the University and spend the first two years in most any curriculum in the whole college. Then where they went for their upper division work would depend upon their interest and upon which campus that work had been developed in the college. There is always some transferring at that time. But I think I mentioned before that we've
CBH: learned that undergraduate students don't like to transfer, so there is a minimum of that going on.

Staff of the Citrus Experiment Station

CBH: I made L.D. Batchelor, who was director of the Citrus Experiment Station, the first director of the Branch of the College of Agriculture in Southern California. I did that in order, again, to weld another chain between Riverside and Los Angeles.

WKB: How did this branch organization work out?

CBH: Reasonably well, for a while. It didn't turn out to be a permanent step any more than the Branch of the College of Agriculture at Davis has been permanent. But at the stages in our development here both branches that we have been talking about served for a while in helping to weld this great segment of the University firmly together, scattered though it was all over the state, and to enable us to weave the fabric of the College of Agriculture into that of the University at the latter's two primary centers, Berkeley and Los Angeles.

Now there were a few personalities involved in the deal down south -- there frequently are, you know. But they weren't serious. Disturbing maybe a little to some people at some times, but they weren't serious and they didn't handicap us seriously, and over the years we've all gotten along pretty well together and have done some very good and important work in the south.

WKB: When you first took over as dean of the College of Agriculture someone told me that there was considerable dissatisfaction with the Riverside Citrus Experiment Station and that you had to do quite a bit of reorganizing. Do you recall anything like that?

CBH: Oh, there was some criticism among the growers, yes.

WKB: On what basis? Didn't they like the experiments?

CBH: I'd rather put it this way. They weren't well informed of the work. Poor publicity. Maybe a little aloofness here and there on the part of the staff in certain individuals. But it wasn't serious. It
was only confined to a few people.

So it wasn't the policy they objected it, it was just a few people.

Yes, it was rather personal.

Then you transferred some of the members of the Experiment Station.

Well, Dr. Merrill encountered that even more than I did, and he had already made most of the needed adjustments. He made a change in the directorship at Riverside and transferred to Berkeley the man who succeeded Dr. H.J. Webber when Webber retired as director of the Citrus Experiment Station. That was Professor Barrett, a plant pathologist who -- well, let us be perfectly frank -- was not as good a director of the Citrus Experiment Station as his predecessor had been. He didn't seem to click. Maybe his sense of public relations or something was faulty, or maybe administration was not his forte -- it's sometimes not, you know. Anyway, Merrill solved the problem by bringing Barrett to Berkeley and putting another man in down there, Dr. Batchelor, as director.

Anyway, I just want to insist that I've never heard of but one human being in this world that was perfect; we all have our shortcomings. And later on there was some opposition in fairly high circles in the south to Dr. Batchelor.

What was his background?

Horticulture.

This caused us a little concern at times, but there wasn't any disruption. At least I was able to keep it in bounds. It caused no serious trouble and Dr. Batchelor went on until he reached retirement age -- in those days the regents retired administrators earlier than they did professors -- and Batchelor gave up the directorship at age sixty-five, but continued on to his normal retirement age as a member of the Experiment Station staff. Dr. Alfred M. Boyce is now director there.

Here are two different men, both of them competent. One of them, Batchelor, was a bit of a cold, New England personality, if you know what I mean. I've seen many people -- their personality doesn't attract people, wholly apart from their competence. It's
CBH: just something a man has or he doesn't have.

WKB: It's a difference in our culture too, between New England and the West.

CBH: All right, we're a little more open here, "Hail fellow and well met!" and all that sort of thing. Well, Dr. Boyce had a little more of that than Batchelor, although I think he too was an easterner, and he was a very able entomologist and did a lot for the citrus people and they all liked him.

You encounter problems like that in any university or any department of a university.

WKB: I should think that would be a major consideration in people you appoint for a position where they come in direct contact with growers or farmers.

CBH: It is important. You just can't escape paying some attention to public relations.

WKB: You say Dr. Webber retired as director of the Citrus Experiment Station and was succeeded by Dr. Barrett. Didn't Webber continue on the staff of the station after that?

CBH: Webber left the Citrus Experiment Station, indeed he left the University of California, to go to a private plant breeding establishment in one of the Carolinas, to a cotton seed organization as their plant breeder to improve cotton. He apparently made a mistake in that move because he was unhappy.

WKB: Oh, he didn't retire. He left the position?

CBH: Yes, several years before he had reached the retirement age. He left California while Dr. Hunt was still dean of the College of Agriculture. And Hunt, after Webber's unhappy experience for a year, brought him back as director of the Experiment Station. He served in that capacity for a time and became acting dean of the College of Agriculture upon Hunt's resignation of that office until Merrill came. Webber was then made professor of subtropical horticulture and chairman of that division. In this capacity he selected Robert Hodgson, then in the Agricultural Extension Service
and farm advisor in Los Angeles County, and brought him to Berkeley where the division of subtropical horticulture was then located. When the decision was made to move the division to Los Angeles Hodgson was made chairman of the division and Webber went back to Riverside, not as director but as professor of subtropical horticulture. He served in this capacity for a few years until he retired. He lived twelve or fourteen years after retirement and spent his time writing and lived right near the station on the periphery of Riverside.

Webber seemed very much opposed to any administrative merging of Riverside and UCLA. Also Hodgson was opposed to such administrative merger. Batchelor sounded like he would go along with you in closer ties, because after all he was a subordinate, but he forwarded Webber's ideas anyway. What was the issue there?

I think it was basically the fact that the Citrus Experiment Station had existed for many years almost as an autonomous institution, had established a national and international reputation, and they did not want to lose the name "Citrus Experiment Station." They had gotten along pretty well, done some very good work as a separate institution. I think that was probably the basis.

They were afraid they would lose some autonomy?

Yes. But I think that they feared that the name, Citrus Experiment Station, might ultimately be discarded. I had no desire and no intention of doing that. But I was forging as many chains as I could within our structure to preserve its unity. Here was the Citrus Experiment Station at Riverside and sixty miles away at Los Angeles we were setting up another group of people to work in the same field. It seemed to me it would be well to have them linked together in some way.

Development of a College of Letters and Science at Riverside

When they decided to develop a four-year college at Riverside there was quite a bit of work involved, and I think some of this included
you, in trying to get a campus set up and trying to get the local citizens to support this development, the new College of Letters and Science now at Riverside.

Oh yes, I was in that picture right from the beginning. I hope they still call it officially a college of letters and science, for I insisted on that type of development right from the beginning. By that I meant a true University development in --

The other possibility was a liberal arts college, which they talked about for a long time. The committee I had set up to help me in advising the president and the regents on the organization of this college talked a lot about a liberal arts college there. And finally I said to them, "What do you mean by a liberal arts college?"

"Well, a college like the liberal arts colleges of the East, Swarthmore and Dartmouth and William and Mary and the like, and even like Pomona in Southern California."

"Pomona? Do you mean to say that you want me to advise the president and the regents to set up in the University a liberal arts college at Riverside to compete with Pomona? I believe in Pomona. I think we should aspire to do everything we can to help Pomona, not to compete with her. And what we need here in our University structure is a university college of letters and science with strong development at the university level, including graduate students and research in the basic disciplines, in the physical and biological and social sciences, arts and humanities." Well, as I say, we started that way and I hope it has been continued. And I feel the same way about Davis. There was no doubt in anyone's mind at that time that we should have a true University faculty and program for our college of letters and science at Davis. Some people differed with me for a while for Riverside, but they finally came around, and we started off that way. And I had warm support in this from President Sproul."
Forecast for the Future

The College of Agriculture as I knew it no longer exists. When the regents some ten years ago revised the administrative organization of the University on the basis of campuses they destroyed the unity which we in the College of Agriculture had guarded with zeal and fostered tenderly for many years. The University, in my judgment, is no longer a single university but a federation of campuses, if not indeed the initial step to a university system as exists in some states.

The "College of Agriculture" is now an academic college dealing only with resident instruction, both undergraduate and graduate. This lines that phase of our work up with the other academic colleges and fits it neatly into the organization chart of the University. The institutional connotation of the old College of Agriculture with its Agricultural Experiment Station and its Agricultural Extension Service and its internal organization for resident instruction is gone. In its place we now have the Division of Agricultural Sciences, with the College of Agriculture, the Agricultural Experiment Station, the Agricultural Extension Service, the School of Forestry, the School of Veterinary Medicine, and even the Giannini Foundation of Agricultural Economics and the Kearney Foundation of Soil Science — all coordinate with each other.

The College of Agriculture operates on three campuses; the Agricultural Experiment Station with its several field stations is on four; the Agricultural Extension Service on four, together with some 45 or more county offices all over the state. Those on each campus have their own individual line of communication through their own chancellor to the president. To be sure, up near the president is the University dean of agriculture, the director of the Agricultural Experiment Station, and the director of the Agricultural Extension Service, all called statewide officers and all located as far away as possible from their real work, all presumably struggling to coordinate something and to bring back some
degree of unity caused by the disunity of campus organization under which the University's work in agriculture and its closely-related-to-agriculture work in forestry and veterinary medicine must now be done.

And all this makes a neater chart.

Yes, but it has played havoc with the unity and, I am told, the morale of this thing we have called since Hilgard's days the College of Agriculture.

Now, visualize for a moment this network of University campuses or this federation of University units, each with a considerable degree of autonomy, but all desiring to be woven together in a single fabric under a single administration and a single board of regents. So far as agriculture is concerned, the situation can still be simplified and some degree of unity reclaimed. Agriculture doesn't have to be represented on four campuses. In fact, I would now put agriculture on only two of them. I'd use Davis as the center for work for the great interior valleys and other areas in the north, and Riverside for the University's primary agricultural center for the subtropical and other areas of Southern California. The environmental factors influencing agriculture — temperature, elevation, soils, etc. — vary so markedly and so widely and distances are so great that two primary centers for agriculture, with a series of field stations, will always be needed. More would be a dissipation of manpower and a needless waste in duplication of equipment.

Would this be legal under the Land Grant Act, or must there be agriculture offered on every campus of the University?

This decision would be within the jurisdiction of the University; the University is the Land Grant College of California and it could determine where its work in agriculture can best be developed.

I understand that President Sproul wanted agriculture represented on every campus.

Well, I've heard that statement before and I think I know Mr. Sproul well enough to say this: I think he rather felt, maybe he still feels, that the College of Agriculture has always had something of
a stabilizing influence in the University. We don’t live in ivory towers, many of us. We live pretty close to people of the state, to men of affairs. We believe in high intellectual attainment and scholarly work, we even have some interest in and feeling for learning for learning’s sake, and certainly for basic science, regardless of its application, but most of us, I believe, have a feeling and a hope that whatever we do in the advancement of science will ultimately contribute something to human welfare.

WKB: Might this make it harder financially for the campuses that don’t have agriculture to get funds for buildings and so on in other fields?

CBH: I wouldn’t think so.

WKB: Because I believe that the administration leans quite heavily on agriculture to help it gain financial support from the legislature. Or don’t you feel that is so?

CBH: Well, that has been true in the past. Certainly it was true during my period of activity in the University, but I doubt that it is true today. California has become an urbanized state, you know. I doubt if more than six per cent of our 15 million people now live on the land.

When I was active I used to go to the legislature at the request of the regents’ representative, Mr. Corley, and before that, Mr. Nichols, when they had something they thought I could do. I worked with both of them. But nowadays when I go up, as I did this year on one or two occasions, I see Vice-President Richard J. Stull there. He’s the vice-president for medical sciences. And I would think that in medicine and engineering now, maybe law, the activities of those colleges in the University would attract the interest of more people of the legislature than someone from agriculture, because there are not many farmers left in the legislature and their numbers in the state are steadily decreasing.

WKB: These other departments are beginning to render public service in the same way that Agricultural Extension always has — and the Experiment Station.
Absolutely. And more Californians are interested in that kind of public service than they are in the public service that the College of Agriculture renders. If I may speak bluntly -- let other segments of the University come out of their ivory towers, as agriculture, engineering, and medicine have, and do something constructive and helpful for individual citizens themselves instead of agitating so much and almost exclusively, I fear, for political and social reform. The University need no longer worry, as it does today, about good public relations. That's the way the College of Agriculture built its public relations, its public reputation, and its public support.

But let's get back to the University's work in agriculture. I would move everything that goes under the guise of agriculture on the Berkeley and Los Angeles campuses out to Davis in the north and Riverside in the south. And I'd return to my anvil and begin to weld all the chains that I could between Davis and Riverside, including an airport, if necessary, at Riverside. I guess there's a little one there that could be used. We've got one ourselves at Davis. And I'd have some more airplanes so that people could move back and forth quickly and easily between these two campuses. And I would station the chief administrative officers of the University who are supposed to guide the University's work in agriculture at one or the other of these two campuses in a balanced manner, close to and intimately associated with those whom they are supposed to guide and encourage. Let these officers do their traveling, to Berkeley, to Los Angeles, or elsewhere, to do the University's hand-shaking and visiting -- but still stay at home enough to be available to the staff -- and leave those who do the University's real work, teaching and research, at home to work, to attend educational meetings, and to greet and shake hands with those who come to them to learn something.

Of course I would keep the present contacts with the two primary campuses, Berkeley in the north and Los Angeles in the south. I would continue to weld chains between the departments at Berkeley and those at Davis and between those at Los Angeles and at Riverside
too, so you'd have a well-knit system in agriculture woven into
the University's fabric at the two presently primary campuses, and
ultimately even if more convenient, the other proposed campuses as
they develop.

When I left the helm there wasn't enough land at Riverside to
make them able comfortably to look forward to this kind of an ar-
rangement and they needed to buy some more, although the first re-
commendation that I made to the president and the regents after it
was decided to establish a college of letters and science at River-
side was the purchase of some 140 acres of land. I hope that this
land acquisition has been carried further.

KB: Riverside is an ideal location, isn't it, for Southern California
type agriculture?

3EH: Well, it's not altogether ideal. It is ideal for certain crops.
It is ideal for citrusiculture because the Riverside and Redlands and
San Bernardino area has long been the primary center for orange
production in the whole southern part of the state. But the climate
is a little dry for avocados and certain other subtropical plants
that do better in the coastal region. Therefore the University is
likely always to have in the south two centers at least for Experi-
ment Station activities. And that was why just before retirement
I was instrumental in establishing a field station in Orange County.
I reasoned that it should be accessible both to Riverside and to
the Westwood campus, but that ultimately when the other forces I
have already mentioned resulted in the moving of agriculture off
the Los Angeles campus the Orange County field station would be-
come an adjunct of Riverside, as the Wolfskill experimental or-
chards are of Davis. I saw the development of Davis and Riverside
which I have outlined above as the solution to a problem I was trying
to cope with all during my administration.

Let me tell you about a conversation with President Campbell
that occurred during my first six months as dean of the college,
which were the last six months of President Campbell's period as
president. President Campbell said to me, "When I came into the
presidency of the University the College of Agriculture was just
another institution on this campus." And I resolved then that if
the regents and the presidents would let me stay around here long
enough no other president of the University would ever make a
statement like that. I set out deliberately to weave the structure
of the college into the fabric of the University. Now the two pri-
mary campuses of the University are in metropolitan areas, and we
have always struggled with that fact. We've lost agricultural
lands to other University needs at Berkeley and Los Angeles, and
we've moved most of our departments in the north to Davis. The
problem has been how to make the College of Agriculture an integral
part of the University of California and still enable it to do its
work effectively.

After World War II a commission -- Dr. Deutsch was a member --
the commission was the Strayer Commission -- Francis Strayer of
Columbia was brought out by the regents and the state department
of education, and with Dr. Deutsch and a member of the department
of education the three of them made the first joint study of Cal-
ifornia's needs in higher education following World War II. And
they came up with the idea that we had to provide for more Univer-
sity instruction on outlying campuses, Berkeley and Los Angeles
couldn't take care of all the students who would soon be seeking
admission, and recommended that a liberal arts college be created
at Riverside and one at Davis. In this proposal I saw the answer
to the problem which I had struggled with all the period that I'd
been in the University and which the University had struggled with
longer than that, namely to have its work in agriculture located
in an environment where that work could best be done and to have
developed at our elbow the disciplines, the physical, biological,
and social sciences, without which we couldn't possibly exist. And
that is the final outcome of this struggle to have agriculture a
real part of the University, not something just tacked on. It
can't get along without the rest of the University, and still it
needs to be able to do its work in a favorable physical environmen.
Now we've brought these two things together for the first time in the history of the University of California.

The Department of Home Economics

Early Background

Mary: Maybe we ought to start our discussion of home economics. Was the department of home economics -- but it wasn't the department of home economics, it was the departments of household arts and household sciences -- was this the arrangement when you became dean?

Hill: Yes.

Mary: It was not in the College of Agriculture. Do you know why not? Historically home economics is usually located in the colleges of agriculture, isn't it?

Hill: Well yes, I think it's fair to say that home economics got started in the land grant colleges, but not exclusively. The land grant colleges of America have, by and large however, made the greatest contribution to home economics, and it may be said to have grown up in those institutions. It also grew up in the USDA, its bureau of home economics. Another thing that helped to develop home economics nationally was the Smith-Lever Act, the act that established the agricultural extension services, because that act sets forth in specific terms that the extension teaching is to be in agriculture and home economics. Actually, the Congress was influenced by what the Land Grant College Association people were telling Congress ought to be done. All great ideas don't originate in Congress. [Laughter] I've always felt that a college of agriculture provided a favorable climate for home economics to thrive and develop in, and that is why I say it has grown up in agriculture.

But let us come back to California. When I came here Professor Jaffa was still living and he had brought Dr. Agnes Fay Morgan into his department of nutrition, which was a division of the department of agriculture. In those days we had a department of agriculture, and nutrition was a division of that, just like soils, viticulture,
animal husbandry, dairy industry, pomology, etc., were divisions. We operated for a while on that same pattern.

KB: Only nutrition. Were there any other courses referring to home economics elsewhere?

EH: No, it started in this division of nutrition. But even when I came the old department of nutrition had been abandoned and nutrition work was being developed in animal husbandry and in poultry husbandry, and human nutrition had been set off as an independent department in the College of Letters and Science.

KB: And where was Professor Jaffa by then?

EH: Well, he had retired by the time I became dean.

KB: In 1928 or so I think he retired.

EH: Did he? Well, you see, I came back in the fall of 1928 from Europe and I think he was still around, but whether he was active then I don't know. It was after he retired that the old division of nutrition was abolished.

KB: With his retirement?

EH: I think with his retirement. Now I can't be too positive.

KB: Someone had told me that Dr. Herbert Evans wanted to succeed him as professor of nutrition. I guess you weren't here at that time.

EH: No, but that may be so. I've known Dr. Evans for a long time. He was chairman of the department of anatomy in the Medical School, but his interest grew into nutrition rather than anatomy. And he began to work in this field. He was one of the early vitamin researchers. He discovered vitamin E, as I recall.

But the old division of nutrition I'm sure was abolished and nutritional work assigned to poultry and animal husbandry and Dr. Morgan -- she may have had some associates with her at the time -- set up a department of household science, an independent department not in the College of Agriculture but among that conglomerate "57 Varieties" of things that made up the College of Letters and Science in those days. The College of Letters and Sciences then was merely an agency to manage curricula, and departments were independent. Department chairmen went directly to the president. The
CBH: dean of the College of Letters and Science had no budgetary powers or budgetary authority. He only dealt with study lists and student problems and so on.

WKB: It was not a college like the College of Agriculture.

CBH: No. So Dr. Morgan operated for a number of years in that way.

WKB: Why? Do you have any idea why that switch was made? It must have been made when you weren't here.

CBH: Well, I would say it was made before I came, or about the time I came, and I just accepted it as a fact.

Dr. Evans, before I leave him, may I say that I gave him the title of "associate" in the Experiment Station and some money to help support his work out of funds that came to the College of Agriculture from the federal treasury for a number of years. And he, I think, was very happy in that relationship, and I used some federal money to good advantage to get research work done that he was interested in doing and I was interested in having done in the Agricultural Experiment Station. He was getting money from outside grants and from other parts of the University, but his whole program was so basic to animal nutrition that it was just fine for the College of Agriculture and the Agricultural Experiment Station to have men of that distinction working in our outfit. You see, in those days Experiment Station people didn't just wander hither and yon trying to satisfy their own curiosity. We tried to maintain a reasonably balanced research program in each field of agriculture represented in the college. And it was never difficult to guide curiosity; some very productive curiosities were given complete freedom of exploration into the basic physical, biological and social sciences underlying agriculture. So Evans felt right at home with us. We helped him and he helped us.

Bringing Home Economics into the College of Agriculture

CBH: Now let's get back to home economics. There had developed also another independent department, also in the College of Letters and
Science called household arts. Household science, household arts.

Now, household science was actually nutrition?

It was pretty largely nutrition, yes. I don't think there was much else there at that time.

And it was pretty largely Dr. Morgan.

Yes, and her students and associates. She had some other people associate with her -- Dr. Ruth Okey, I think she's still active; and Helen Gillum, she just retired this year. Well, those were the original staff.

Now we come to the $64,000 question: in the University of California, why bring home economics into the College of Agriculture? I must confess to being the culprit that accomplished that. Now I did it for one, or possibly two, reasons. Perhaps the most cogent reason is this: we already had, by that time, a group of home economists in the Agricultural Extension Service with Extension specialists that I spoke of in nutrition, in clothing, and in a number of other things. And we had home demonstration agents in the counties. Now those were all in one part of the College of Agriculture; they were in the Agricultural Extension Service. And they had no home base. The home demonstration agents, their only base was this little nucleus of Extension specialists in home economics in the Extension Service. No real subject matter base.

All right. I thought the time had come to have a teaching and research department to attach them to, to have a home base in our College of Agriculture that the home demonstration agents out in the counties could come to at least once or twice a year for some refresher lectures and where our specialists in these fields could turn to as their fountain of knowledge to gain new information and so forth. They could browse around over in the College of Letters and Science, but that department had no responsibility for them; if the women wanted to talk with them all right, if they didn't all right. Our Extension people were at loose ends, in my opinion. I doubt if Mr. Crocheron would have admitted that, because he thought
he could run things pretty well himself -- and he could -- but it just made sense to me to think that it would be better if we had strong development in home economics in the College of Agriculture. And realizing what had been done in colleges of agriculture for home economics at Cornell and Iowa State and Illinois and Oregon and elsewhere I conceived the idea of inviting Dr. Morgan and her staff to join our company and bring along her whole department -- division -- into the College of Agriculture.

Another reason was this: there was no one in the College of Letters and Science that was at all interested in household art or household science except the women of these two departments. In those days I suppose this was even more of a man's world than it is today.

KS: Still is pretty much of a man's world.

CHE: [Laughter] I thought you'd say that!

And there was no one below the president's office trying to encourage them and helping to fight their battles in the way I was trying to do for the rest of the people in agriculture. I was, next subordinate to the president, the principal University officer that was trying to do everything possible to strengthen and develop that phase of the University's work. I found early in the game that some people in household arts didn't want to come into agriculture, and I didn't want to force them or even try to persuade them.

KS: Weren't they trying to get away from the home economics idea?

CHE: Well, they might have. That group probably didn't much like the term "home economics." And anyway, we had the department of art to tie them into. And that was all right. And one of the principal members of the staff -- whose name slips me -- was an anthropologist, although she was stationed in household art, and her basic interest was anthropology. Anthropology was getting too far away for we farmers, and I wasn't building an empire, I was just trying to strengthen in every way possible that portion of the University's work that the president and the regents had assigned to me. So I brought home economics over, with the president's approval.
KB: Was Dr. Morgan satisfied to be in the College of Letters and Science or did she want to make the change?

CBH: I think she was happy to make the change because she knew what was going on elsewhere and she recognized that a college of agriculture of the right sort would afford a favorable environment for home economics work, and if you were to ask her today if that had proved to be true over the years, I think she would say "yes."

KB: Was she interested in becoming a home base for Extension workers? Did she want to work with Extension?

CBH: Let me put it this way: she was quite willing and able to make home economics available to them. Surely, any information she had — but she perhaps didn't want, and I certainly didn't want her to come into agriculture just to support Extension. I wanted to transplant home economics into a soil where it could thrive, grow, and develop per se, and yet be available to our Extension people.

KB: Was there any opposition to including the department of household science in the college? Letters and science didn't care, did they?

CBH: Oh, no. People in the College of Letters and Science were kind of happy to get rid of it. Two or three people were involved, only the leading people, and they weren't especially interested in it. I suppose some of them, even in those days, questioned whether it should be in the University. I understand this same philosophy prevails today in some quarters. But to me, my part of the University, I always thought it was an important part.

KB: Was it as easy for a girl going to the University for a general course to take a course in home economics in the College of Agriculture as it had been when it was in the College of Letters and Science?

CBH: Oh yes, I know of no problem.

Home Economics as a Liberal Education for Women

KB: Don't you think there would be a number of girls who would take it just from general interest?

CBH: Now you're getting to my interest in home economics per se. I have
been talking primarily about my interest in home economics as a part of an educational institution that was doing something for the people of the state.

Yes, I've felt for a long time that the field of home economics, based as it is upon the physical, biological, social sciences, arts, and humanities, those basic disciplines, plus a few techniques they've developed in the field of home economics per se could be made the basis of a good, sound liberal education at the college and university level for women. I can't conceive of anything more basic to what 90 per cent of women do in this world, become wives and mothers, than an education along that line.

Soon after I took over this department I thought, "My God! About time you learned something about home economics!" So I got on the train and I took a trip around the country. I stopped at Iowa, at Minnesota, at Michigan, at Cornell, and maybe some other institutions. I spent two or three days talking with the people in those departments of home economics at each place -- some were schools of home economics and some were colleges. Wisconsin I went to too because they had a small but excellent school. (I've already recorded many times my admiration and respect for the University of Wisconsin. There's a state university that certainly has done much for its state and its people.) And at every one of those places, teachers would say to me before we got through, "Ninety per cent of our graduates will be married within three years. They have met their fiancées, many of them, right here on the campus, and he's going on for graduate work or he's going to get a job; she wants to get a job for about three years to accumulate money to pay for her trousseau, and then she and her lad are going to be married." Now if 90 per cent of home economics graduates are doing that, I think the same percentage might well be said to obtain in the general conglomerate mass of women in letters and science.

Take my own daughter, and I often use her as an illustration: at the end of her sophomore year the College of Letters and Science
said to her, "What are you going to major in?" She looked over her courses, what she had had in the first two years, and found that she had more units in history than in anything else, so she decided to major in history. She was married within six months after she graduated; she's now mother of four children. Now what — history is all right. I don't disparage history, but I don't know if it's the best preparation for motherhood and family life. Isn't there something in this field — in anthropology, in chemistry, in biology, in psychology, in nutrition, in art — and in other basic fields that can be brought together to form a curriculum of true university caliber? Why can't home economics be made academically respectable? We've done it in agriculture, which one time suffered from the same inferiority complex. If it's the name, change it. Hasn't architecture become "environmental design" which may flatter the pride of the academician but which means little to the man who employs the architect to design a building for him.

WKB: Well, I got the idea that Dr. Morgan saw nutrition and home economics as a very scientific and specific preparation for high level work and that she might have been rather unfriendly toward this general education idea.

CBH: Well, of course, Dr. Morgan's personal interest was in nutrition. And she was a very good scientist. A man more competent than I to appraise her scientific accomplishment one time included her in the four leading women scientists of America. But she also recognized these other values which home economics had to offer.

Well, here I'll mention a hurdle that we've encountered. And this has been difficult. And yet, for the life of me, I don't see why it should. Nutrition was fine here. It was a strong leg of the tripod or whatever it was on which we were building home economics. It was one segment of scholarship in this field that it's been possible to develop properly. Consumer economics was the term I used to use a lot in groping around for a comparable field of scholarship and interest in economics that would attract the same kind of minds, just as highly intellectual as nutrition has. But we were never able to find another Agnes Morgan, with a comparable
mind and interest in the economic side of a household. Now, why can't we get women, fine women, interested in the economic things, to become as good economists as a man can? You know, sometimes I think if I had it all to do over again I would have built a department of home economics with men. Not altogether, but I'd have had more men in it. And we did some of that; we brought in Dr. Judson Landis in sociology, in marriage relationships. Of course we had as an adjunct Dr. Harold E. Jones in the Institute of Child Development. That was not a part of home economics, but it was closely related and we had one person, Dr. Catherine Landreth, jointly employed by the institute and by the department of home economics.

VKB: You used the Institute of Child Development as your laboratory.

CBH: Yes, on child care. Again, these 90 per cent of the girls are going to be mothers in due time. I think child psychology and the disciplines that are built around that are of tremendous importance and I think they are intellectually as stimulating and challenging as anything can be. If you're interested in family life — and God knows this nation and the world would benefit if more serious thought were given it — what more interesting field could you find?

And I don't see any reason why, and this just doesn't necessarily have to be in the school or college of home economics, they don't have relationships with art, all the fine arts, the contributions of which do so much to make truly worth living the living which most of us have to make.

VKB: You think there ought to be a better general program for women developed along the lines of home economics.

CBH: I call it a liberal education for women using the field of home economics and the basic disciplines of knowledge on which home economics should be built.

VKB: Well, now I believe the college of home economics is moving away from the Berkeley campus.

CBH: Well, it's been proposed, I believe, that home economics be closed on this campus and that students that want home economics go to Davis. And what about all the women students on this campus today
CSH: who will be married within three years? That is a narrow and unimaginative view of what home economics could be.

Training Teachers and Home Economists

WKB: Where did you get home demonstration agents? Were they trained in California?

CSH: Some of them. But most of them were brought in from other states. Many of them came from Oregon, from Oregon State College, an institution that is not academically on the level with California. But it was the best we could do, and the high schools of California have pled with the University for years to give them more teachers of home economics in the high schools. The schools have had, like Extension, to go outside the state. The state colleges haven't done too good a job in training home economics teachers for high schools either. Perhaps the best one was at Santa Barbara State College, that I spoke of a while ago -- now a campus of the University -- but are they going to continue home economics there?

WKB: I've read some criticism of the University's department of home economics, that it was too scientific for the teachers of home economics in high school. The principals did not wish to employ the graduates.

CSH: Yes, to some extent that has been true. But that criticism has been leveled at agriculture too. I submit that you can't get anything too scientific. It's how you use science, in my opinion. In my opinion science is the nearest approach to truth that human beings have been able to develop, and we can't possibly have too much truth.

WKB: Well, I think the principals of these schools were objecting to the fact that the University apparently was geared to train high level scientists and that the girls that they trained wouldn't go into high school teaching, they'd go into research work. And where were they going to get their home economics teachers? And I had the feeling that the criticism was of Dr. Morgan, that she was
so science-minded.

CBH: Oh, I suppose there's something to that.

WKB: Were the home economics courses geared towards training scientists, or high school teachers, or home demonstration agents, or homemakers?

CBH: I'd like to think that they were geared toward the education of women.

WKB: I think from what you described last week that you mean homemakers.

CBH: No, I would not say that. But I would not overlook the fact that the great majority of the graduates are, ultimately, going to be homemakers, which is why what I am really pleading for is a sound educational program for women at the University level based upon home economics and its supporting disciplines -- whatever the girl may later do to earn her living.

WKB: I think it was in about 1945 or so when Monroe Deutsch was commenting on some proposals you and a committee had made for a home economics curriculum that he objected to family management, I believe, being in the University at all. And he thought child care and child development should be in the education department and anything about home furnishings should be in decorative arts. It seemed to me that all these comments indicated that he did not consider homemaking a proper subject for the University to teach.

CBH: Yes, I think that was true, and the same view is held by others today. But I am not talking about "homemaking" as a discipline itself; it isn't, any more than farming is a discipline. Both are vocations, and I believe we need educated men and women in both. We don't teach farming in the University either. We use the several disciplines basic to agriculture, plus bodies of knowledge accumulated in their applications to agriculture to form our agricultural curricula to provide a stimulating educational experience for men or women whose vocations are to be found in some phase of agriculture. I submit it is just as educationally sound, just as logical, to educate women by using home economics and its bases in a comparable way.

WKB: Was Dr. Deutsch's the usual academic attitude toward home economics?

CBH: Well, I think it would be fair to say that this was a general
attitude in the University of California among people who had a lot to do with the University's destiny. But I don't think it was true in many other institutions, some of which are pretty good, too.

It sounded like it was an uphill fight for home economics.

Yes, Dr. Morgan struggled. I think if you were to ask her she would say that before she joined the College of Agriculture she had to fight her own battles and I will say she was pretty good at it. She was a red-headed Irish girl. [Laughter] But I think she was rather appreciative of my help in it, ultimately.

I think it was in 1938 when home economics came into the College of Agriculture. I saw a letter from you at that time to President Sproul and you commented that you thought you'd better hurry up and get a good home economics program under way because Sacramento Junior College and Cal Poly were both going to start strong home economics programs the following year and you said, "You well know our relations with these two institutions." I wondered what the problem with Sacramento J.C. and Cal Poly was. I've run into this in other things too.

I don't know that I can recall that specific situation, but I am disposed to think I was talking about teacher training in home economics. Of course, Cal Poly was regarded by quite a few people in the College of Agriculture as a competitor. I never regarded it as such myself, but I couldn't close my eyes to the fact that it was in the field of agriculture teaching training, controlled pretty largely the placing of teachers in the high school agricultural departments. In those days the University was being particularly criticized by the high schools of the state because they weren't turning out more teachers. We were all concerned about that. I think it fair to say that in those days we weren't too well pleased and satisfied with our own school of education in the University and we were trying to improve it. We certainly were concerned lest the trend go so far that all high school teachers would be educated and trained in the state colleges. I was especially concerned myself with our responsibility for teacher training in agriculture and in home economics.
I've long held the philosophy that the state of California's primary and secondary school system ought always to have in it a substantial number of university-trained and educated people. I don't care whether they come from the Berkeley campus or the Davis campus or the Los Angeles campus or from Stanford or U.S.C. or from the University of Michigan. I think there ought to be in our lower educational system a substantial number of university-minded and university-trained and university-experienced teachers. I think it would be a bad thing if we turned over the job to the state college — let me hasten to record the fact that I believe in the state college system, I think it's playing a great and important part in the total educational system of California — but I don't think we ought to turn over to that group of institutions the entire responsibility for training teachers for our youngsters in the state.

WKB: I think the battle you speak of is still going on.

CBH: I know it is.

Administration of Home Economics

WKB: How is the administration of home economics set up? First of all, it came in as a department?

CBH: It came out of departmental status in the College of Letters and Science and came into divisional status in the College of Agriculture. In order to give it a little more prestige on the campus — and the same thing was true with forestry and veterinary science — I conceived the idea of setting up four departments in the College of Agriculture, agriculture, forestry, home economics, and veterinary science. And then, if we want to we can divide the three new departments up into divisions, as we had long ago divided the department of agriculture into divisions. And we did that. And that was our organization for a number of years.

WKB: I recall that the home economics department at UCLA didn't want to come under the College of Agriculture because that would put
them under a division of the academic senate that was not at UCLA.

CBH: Well, to the best of my knowledge, no one in the College of Agriculture ever proposed that home economics at Los Angeles be placed in the College of Agriculture. Now, since the home economics work in the north came under my jurisdiction in the College of Agriculture I naturally was consulted and I perhaps served the president in some ways on problems of home economics in the south. But they were assigned to the College of Applied Arts down there. We have no such college on this campus, you know. But Los Angeles had a need for such a thing because they were growing out of a teacher's college and had some things that were somewhat extraneous to a university. We never had this at Berkeley. Therefore they set up this College of Applied Arts to pull together several things. I suppose it still continues.

VKB: And at Davis?

CBH: Well, we made first a division, then a department, combining Davis and Berkeley, and in my time Dr. Morgan was in charge of this Berkeley-Davis department.

VKB: Was the University administration friendly toward expanding the home economics department, or was there a lot of feeling that that ought to be closed out?

CBH: No. I would say that in general the University administration did not bother itself much about it.

VKB: How about specialization on the different campuses? I know UCLA had a home economics department and Cal did. Now, ordinarily you try to specialize on the different campuses.

CBH: That entered into our thinking to some degree. I know it did between Davis and Berkeley because I visualized that most of the girls who were coming to the University of California in the north for home economics work and for a general education in this field would probably in the long run be going to Davis, depending, of course, upon our ability to develop other offerings at Davis. They wouldn't go there just for home economics. And that maybe in the long run the majority of girls who were going into professional
work, research or teaching at the university level, and therefore would ultimately be in graduate work, would be here at Berkeley. And I know too that at one time we were thinking of more specialization in the undergraduate curriculum here at Berkeley and less at Davis, and to Davis would come ultimately students interested in a general education with home economics as a major, those who expected to be homemakers soon, and those who were planning to teach. Both groups would have pretty much the same educational interests and require much the same preparation.

G: It doesn't sound like UCLA was very well integrated into the whole.

H: Well, that wasn't in my thinking much because I had no responsibility there.

But we thought at one time -- and this was prominent, I believe in the minds of the people in the south -- that they would go in for clothing, textiles, interior decoration, and things of that sort, emphasizing those fields perhaps more than we would up here because they were close to Hollywood and the centers of dress design and things of that sort. Those were pretty highly specialized fields, offering comparable opportunity for professional employment as dieticians, nutritionists, etc.

G: I guess I saw a proposal by Greta Gray -- I think she was chairman of the department of home economics down there -- that they specialize in clothing and textiles and in consumer economics and that Cal specialize in foods and nutrition and child development and probably your teachers and homemakers would go to Davis. This plan was not acceptable to you and Dr. Morgan.

H: Well, that is one weakness with most home economists, or home economics work. They tend to begin to specialize too soon. I have always thought that wherever home economics was offered there ought to be some development in all of these fields, particularly in nutrition, child psychology and care, and consumer economics. Clothing and textiles are perhaps a bit on the periphery of things.
Research

WKB: How much research was done under home economics auspices?

CSH: Dr. Morgan did a great deal in nutrition. She always had a strong and productive program under way.

WKB: Was there any other research?

CSH: There was some in consumer economics, Dr. Jessie Cole and some associates. But Dr. Morgan, Dr. Okey, and Dr. Cook and some others formed quite a little nucleus of people in nutrition and made quite important and distinct contributions. We never were able to get the economic side of things on as firm a foundation as we did the nutrition. Maybe that was an impossible attainment. I don't know.

WKB: Was there much research going on at Davis?

CSH: Not in my time, because we were unable to, or at any rate didn't, find people interested and able to develop a sound research program.

WKB: How about UCLA? They weren't doing much in the way of research, were they?

CSH: No.

WKB: Well, I know there was a lot of complaint, especially from UCLA, that they did not have research facilities. But do you feel that it was a facilities problem or a staff problem?

CSH: No. Ideas, imagination, interest, that was it. Oh, I admit the present ramifications of science require much scientific apparatus, sometimes elaborate and expensive, but I've seen in my time a lot of important work done with little equipment.

Let me tell you a good story at this point related to me by Dr. Wallace Buttrick, the same Dr. Buttrick that discovered Seaman A. Knapp and his farm demonstration work in the South of which I spoke. [pp. 89, 90] He said that when the Rockefeller Institute for Medical Research was established, and its laboratories built, one of the first appointees was Jacques Loeb, at one time professor of physiology in the University, who went from California to Chicago, I believe, and from Chicago to the Rockefeller Institute for Medical Research. Anyway, when Loeb arrived in New York they took him out to see his new laboratories, took him through the
building, pointed out his new laboratories — just bare, no equipment — and said to him, "Dr. Loeb, you'll notice we haven't provided any equipment for you here. We waited deliberately until you had come. Now if you'll just be good enough to make a list of the equipment you'll need we'll be very happy to provide it for you. Don't be modest. Mr. Rockefeller has generously endowed this institution and you and we are not going to be handicapped for lack of money. Anything that you want we'll be very happy to provide for you."

Whereupon Loeb said, "Well, I think I'll need a few finger-bowls." He had made a national, an international reputation with his physiology studies of echinoderms — sea urchins — and about all the equipment that he needed was a few fingerbowls and a little sea water to keep these little animals swimming around in. But he had ideas! [Laughter] Too often I fear the thing that is deficient in many laboratories is not equipment but ideas! imagination! That's what makes science go.

WKB: I think at one time you wrote a letter — you were a little critical of Sproul. You said that you didn't feel that he was supporting home economics as strongly as he supported other programs.

CBH: Did I? I must have gotten out of bed the wrong way that morning!

WKB: Were you never critical of Sproul?

CBH: I seldom criticized him, never publicly. I can remember being provoked sometimes when I couldn't see him maybe for weeks and had to act on my own, and I know I've told him personally what I thought. I knew he didn't need and didn't want a "yes-man" around. But I am sorry if I put these thoughts in writing. I really must have been exasperated by that time!

WKB: You felt home economics had been your most difficult problem.

CBH: Well, maybe it was. I guess I'd have to admit that even today. I wasn't able to get done in home economics a comparable job to what I was able to get done in some other fields under my jurisdiction.

WKB: Why do you think that was?

CBH: Well, I told you... I made the statement —

WKB: You thought your staff wasn't as good as in some departments.
It wasn't, aside from Dr. Morgan and one or two others. And I said this, and I'm pretty serious about this, that if I had it to do over again I think I'd bring some men into the field. I'd like to see some institution really try that in America. I don't know why it is you girls, you women, never like to work for women as well as you like to work for men. Women themselves tell me this is true.

I wondered if contributing to that was the low opinion of home economics that the academic community held?

Yes. But that was not central. The way to gain a good scientific and academic reputation is to do good scientific and scholarly work. We've done this in agriculture. Why can't it be done in home economics?

Wasn't there a lot of pulling at cross purposes in the home economics department between the food and nutrition people and the social science people, consumer economics or sociology?

Not to my knowledge. But I think we must remember the fact that Dr. Morgan's basic interest lay in nutrition, and while I think she recognized this thing I was talking about she was busy with her own teaching and her own research. While she strove to gather around her people of ability in the other fields, they either did not exist or she couldn't find them. Her basic interest was nutrition.

But in my time I knew enough about what was going on in the other fields in home economics elsewhere in the country to realize that there wasn't much going on. Oh, here and there there were some pretty good efforts, but I know of no institution where on the economic side there was comparable scholarly work, work of stature as in the field of nutrition. Certainly in nutrition the University of California's work was outstanding.
The School of Forestry

KB: I'm depending on you to tell the story of the School of Forestry.

CSN: Well, here is a good example of the old adage that "an institution is often but the shadow of a man." And Walter Mulford is that man. He was brought to the University by Dean Hunt. Whether he was the first professor of forestry in the University I don't know, but he was here long before I came and lived through most of my administration. The work was organized first as a division of that old department of agriculture.

KB: Do you remember anything about Dr. Mulford's background?

CSN: He was trained at Cornell and he was one of the first professors of forestry in this nation. Mulford was, I think, as a young man, state forester in one of the New England states, maybe Connecticut. His biography in the University would show that. He was highly regarded and early established himself in forestry circles in the nation and in association with the men who developed the United States Forest Service.

I think the U.S. Forest Service started first in the Department of the Interior and then was moved over to the Department of Agriculture by Congress. The Department of Agriculture and the Department of the Interior quarreled over forestry for a long time. Even in my period there were two or three times when the question was raised whether it shouldn't be back in the Department of the Interior. In recent years there's been, so far as I know, no controversy. It has always seemed to me logical that forestry should be in agriculture and in the universities closely related to agriculture because after all forests are a crop, just like other crops. We have other tree crops for the production of nuts and fruits and this is a case where we grow trees to produce a crop of lumber.

KB: You mentioned Walter Mulford was here long before you came.

CSN: Yes, he made the first substantial development in forestry
education in the University of California and laid the foundation for what we have today. Over the years he gathered around him some other men and we had a curriculum in forestry in the College of Agriculture. And from a budgetary and an organizational point of view it was called the division of forestry.

And as forestry grew and its importance became more and more recognized, both within and without, the University began to make further provision for developments in this field. This was slow, to be sure, for we were in the depression and additional funds were slow in coming. Ultimately it got to a point where Professor Mulford particularly, and perhaps some of his associates, felt that forestry in the University was worthy of a little more recognition than just a divisional status. I well remember he used to say to me, "We are always confused with the division of forestry at Sacramento, the state's organization." (In the organization of the state government there was a division of forestry set up to manage the state forests of California.)

Well, he talked about that for some time and finally we took action to break the old department of agriculture down into four departments. His point of view about the confusion of the two divisions of forestry in the state was not the controlling factor because as the various divisions in agriculture multiplied and became numerous, it also seemed to be a little incongruous to have just one department with all these diverse interests organized as divisions. Finally after considerable thought we set up four departments within the College of Agriculture: agriculture, with a number of divisions in it; forestry; home economics; and veterinary medicine. They were quite distinct. We operated along that line until just before my retirement and until the College of Letters and Science was established at Davis. I then recommended to the president that the several agricultural divisions of the department be made departments and the now agricultural divisions at Davis be made departments in the College of Letters and Science on that campus. This was done.
I think I heard something about at one time forestry wanted the College of Agriculture renamed the College of Agriculture and Forestry.

Yes, that might have been proposed. And that's what the University of Minnesota has done for many years.

And also that the foresters, as they became more professionally-minded, began to feel that their prestige was not being satisfied by working under the College of Agriculture.

Yes, that's right. This problem was even more acute in veterinary medicine. I think that's human nature too. But I think it depends partly upon the admiral of the fleet. I don't think -- maybe I'm naive about this -- but I was never conscious of any administrative procedure handicapping our people in forestry or veterinary medicine. But on the outside often graduates of these parts of the College of Agriculture plus some other people were pleading for a separate organization and their own show and more prestige. And since prestige is certainly appraised by the public, maybe they were right.

In my judgment, the thing that is important in all of these things is to have a University organization that will weld all of these fields pretty closely together. You take forestry and agriculture, they sort of merge together and much of the forest lands are still used for grazing purposes; animals graze in the forests. Agriculture and forestry come together at certain points, you see. And not infrequently there is conflict of interest and it's necessary to keep those interests in a reasonable balance. In forestry, for example, several years ago we set up a curriculum in what we called "range management" where students had certain parts of their instruction in animal husbandry and agronomy, in irrigation and watershed protection and that sort of thing, together with some work in forestry. There you can see an awfully good example of the importance of proper relationships.

All right, if we had an organization in the University with agriculture over on one part of the campus and forestry on another
with hurdles and fences in between you couldn't get these close working relationships as easily as you could under some such form of University organization as I have described. Whether or not it is logical on a chart I think is of minor importance.

When you first became dean, how long did the forestry curriculum take?

Four years.

What did the students do when they were finished?

Some found employment in the lumber, wood, and paper industries, but most of them went into the United States Forest Service. And there was a time when our percentage of graduates passing the Forest Service examinations was high in comparison with graduates of other forestry schools, something like, I'm told, our Boalt School of Law graduates who make a pretty good record when they come to take the state bar examination. That was a measure of the effectiveness of our teaching.

That brings to mind this point: we used to have a little difficulty with the Society of American Foresters, who had an educational committee and who, I think, inspected and rated the forestry schools in the country. And sometimes they criticized Professor Mulford and his school and the rest of us because they thought we didn't have enough forestry per se in the curriculum. But we intended it that way because we wanted to bring in more chemistry and physics and biology and economics.

They wanted more practical work?

Yes. And we went through the same struggle with them as we had encountered in agriculture. There was no professional society trying to dictate to us what we taught in agriculture, but we encountered the same point of view among farmers and some other people. However, not so much amongst farmers as teachers and some other people who felt they knew more than the University did about what should constitute a good course in agriculture, a good curriculum. But this college, thank goodness, has always stood for sound, basic instruction. I hope it always will.
KB: I believe the old European curriculum in forestry included a lot of apprenticeship in the forest.

SH: Yes, ranger work. Well, we've always had a summer camp where the students were required to go for six weeks, I think, a summer camp where they went right out into the forest where they learned how to measure trees and estimate yield and where they saw demonstrated good practices of forest management. That's fine. Even a surgeon has to know how to tie a knot, a suture, and I think that part's all right, provided the work back here on the campus is good, sound, basic work.

KB: It sounds like usually you were trying to train the top men, the administrators, and that sometimes the demands were, for instance, for rangers out in the field. Did the forestry service, both state and national, make any requests to the training they would want men coming into their service to have?

SH: No, I think they were pretty well satisfied when our graduates passed their examinations.

KB: Were they public examinations?

SH: Yes.

KB: Well, now I believe that there's a great demand for men by the private forest companies. Was this true in the 1930s?

SH: Certainly not as much in the early 1930s as at present. Forestry education had to win its spurs among the rugged lumbermen and lumber companies just like we had to do it in agriculture among the rugged individuals on American farms. But we've done it. Forestry has done it. And now the lumber companies, particularly those which are practicing sustained yield and other elements of good forest management, not only accept this but they want and are adding to their company staffs graduates of forestry schools.

You see, the old philosophy of the lumber baron was "Cut out and get out." They went into virgin forest, set up their saw mills, cut all the timber that was usable for lumber, and moved on to other areas after that was done, leaving ghost towns, ghost forests, ghost camps, just like the mining ghost towns. And they ruined
watersheds and caused a lot of tragedy in the homes and lives of people because sometimes by the time they cut out in one area a man was too old to move elsewhere and his family had settled there and when the mills closed down and there was no work, this was real tragedy. Now we have learned in forestry, the U.S. Forest Service, the trained professional foresters in America, have taught the lumbermen to recognize the importance of maintaining a permanent and stabilized industry in those communities. And they can do that only if they practice sustained yield procedures in harvesting that crop of timber. And that means to make sure the second growth is coming along by harvesting in, let's say, in cycles, taking the marketable timber at the time when it is ripe so that other trees growing side by side may continue their growth until they have reached the age and stage of marketability.

WKB: I should think in the beginning forestry in the University was a running battle with the private lumber companies, because they would be against this controlled logging.

CBH: It took the forest schools of America and the U.S. Forest Service several decades to get this principle established and accepted to a point where the prominent lumbermen are today practicing it. And I have no doubt that many of them now think that it was their own idea. You can often get people to do things in this world if you can get them to think that it was their own idea in the first place.

WKB: When you first became dean had the lumber companies at that time accepted forestry?

CBH: No, not all of them.

WKB: Didn't that make it hard for you to get appropriations? I think the lumber companies were still pretty powerful in the legislature.

CBH: I can't recall any handicap in that way. As a matter of fact, that brings to mind one man very prominent in the lumber industry, Mr. Swift Berry, who's manager of the California-Michigan Lumber Company. Their mills are at Placerville, I believe. He later became a state senator and was in the senate while I was still active, and was one of the University's most ardent supporters. His
company gave to the University some 2500 acres of land which we call the Blodgett Forest. It was named for Mr. Blodgett who was president of that company. Their first operations were in the state of Michigan. They came to California and organized many years ago the California-Michigan Lumber Company. Mr. Berry was the company's chief officer in California. And there were other people both in the legislature and in the lumber industry in California who over the years have been very helpful to us.

Anyway, the next logical step in the evolution of the University's work in forestry was to establish a school of forestry. And that, of course, put forestry on a still higher level for prestige and for effectiveness in its work. A very proper thing to do and we ultimately got around to doing it.

When the School of Forestry was organized it reported to the dean of the College of Agriculture?

Well, not exactly. It reported to the vice-president of the University, who was also the dean of the College of Agriculture, and that was satisfactory to everyone. There might have been some personal feeling that I didn't know about. But it had to report to someone and this was the organization we had at that time. It did provide the mechanism for keeping agriculture and forestry together.

Now we organized the School of Forestry and here's another factor I'd like to mention in connection with that: I've struggled to bring more science into forestry, just as I did in agriculture. We have succeeded pretty well in agriculture and we're making distinct progress in forestry. We now have a staff of younger people who are more interested in and better trained for the scientific aspects of forestry and its bases than were the foresters of Walter Mulford's generation. I used to talk to Walter Mulford about this. He honestly believed in it but I don't think his training and experience enabled him to see just how to go about doing it. So we began to bring in some younger people at the lower end of the department's staff, with good scientific training. These men are now mature and they are guiding and doing the work, including
graduate work. I doubt if there was anyone -- certainly few -- in Walter Mulford's generation of foresters who had a doctor's degree. Just like there weren't very many in my generation in agriculture. Now almost everybody has the doctorate. And we're adding more of that type of trained men in forestry. Maybe forestry's still a little behind, but it's rapidly catching up.

WKB: What did they emphasize instead of basic scientific background?

CBH: Well, the more practical aspects of forest management.

The demand for foresters in those early days was so great that many institutions had to follow Dean Hunt's philosophy -- picking the very best students right from undergraduate work and putting them in responsible positions. There was some necessity for doing this in those days, but it's not a thing to continue. And now forestry has learned that, and each year more and more schools are demanding the doctorate as preparation for starting up the academic ladder.

WKB: Where did you get this new blood?

CBH: Well, we turned to botany, we turned to plant physiology, and we turned to plant pathology, and occasionally elsewhere.

WKB: Were there any forestry schools in advance of your own from which you could get graduates?

CBH: No. Certainly none were any farther advanced than we were. Yale, Michigan, and California were generally regarded among forestry people as about on the same level, and each was struggling itself to lay a firmer scientific foundation. The Forest Service, when it established the forestry experiment stations of which there was one here in California, were able to attract onto their staff men of ability and good training, good scientific preparation. Some of them came from abroad, but some were developed here. The profession is advancing. There's no doubt about it.

WKB: I forget when the new forestry building was completed.

CBH: The forestry building was the second building built on the Berkeley campus following the war. The first one was chemistry and forestry was the second. That was because we had been talking about a
forestry building for so long and our forestry people had their plans in mind and they knew what they wanted to do and we got in early in the game and proceeded to construct that building.

Was there any pressure from outside sources to increase your forestry program? I know you had outside pressure for the School of Veterinary Medicine.

Now wait a minute. When we get to talking about forestry and veterinary medicine let's not call that outside pressure; let's call it outside interest, which we used to good advantage. Yes, there was a lot of outside interest and help. And the alumni -- we have an awfully fine and loyal group of California foresters. Very close-knit. I suppose there's something about going out into the forest and working there that gets your feet down pretty close to the soil and your mind maybe up on top of those trees.

Alumni, and people in the legislature like Mr. Berry, and others interested in forestry all were helpful. But I think the primary factor why we were able to get the forestry building so soon was that it was recognized by the campus development committee as one of the urgent needs, and the forestry people were ready with their plans and so the architects naturally took that on and completed it.

Where did the Forest Products Laboratory come in?

Oh, the Forest Products Laboratory was an interesting thing too. I think probably the lumber people and forest public played even a greater role in that than they did in helping the University develop the forestry building. There was a lot of interest in the laboratory. My interest in the matter was twofold: one, I have long been interested in doing everything that we possibly could to make greater industrial use of agricultural products as an outlet for farm production. I felt similar opportunities existed in forestry. And two, I thought I saw in the Forest Products Laboratory an opportunity for promoting more basic research in the field of forestry. So we made the Forest Products Laboratory a function of the department of forestry rather than something separate. But we were delayed in
getting that Forest Products Laboratory established. Again I think because when it came right down to brass tacks the forestry people and the members of the staff of the department at that time were not too sure what they would actually do with it.

So we brought into the department some people who were interested in forest products and waited until they had had time to settle down and get established in the University and to study the thing so that their ideas could clear. And then there were some other factors that perhaps caused a little delay; the war was on and we couldn't get started anyway, and we used that period during the war for crystallizing our ideas of a program for forest products research. What would such a laboratory do? How should it actually be staffed? All related to the department and a function of the department? So we brought in -- as I recall, the first man brought in was called a wood chemist, a man who was a student of the chemistry of woods. And later on even physics was introduced.

Then, when we actually decided to establish the laboratory and had a pretty clear picture of what it would be, we had to determine where to put it. We knew it was too dirty and too noisy to have on the campus, so we first of all thought of putting it down on the Gill tract some place. The Gill tract then was our backyard, the farmyard, and it seemed logical to build it there. Then the engineering people came up with their proposal of an engineering field station, which was ultimately located in Richmond.

One morning I woke up with this notion: now here is the College of Agriculture proposing to develop a forest products laboratory down in Albany on the Gill tract. The engineering people are proposing to have a field station just a few more miles out that way. It doesn't make sense for the University to begin to develop on the periphery of Berkeley or Albany field facilities for various departments. Why not explore the possibility of combining or of assembling all of these field stations in one place? So I asked Dean Baker of forestry to come over and talk to me about it and we
chatted for a while and then I suggested that he go over and talk to the engineers — Dean O'Brien, I think, was dean of engineering at that time — learn more about their plans for an engineering field station, and maybe ultimately explore the possibility of the College of Agriculture developing its Forest Products Laboratory nearby, because certain facilities might be used in common. So, to make a long story short, we set up the Forest Products Laboratory nearby the engineering. I supposed there must be some overhead that could be common to both — electricity, water, sewage, etc., could be developed more cheaply if they were close together than if they were apart.

KAB: And how has that work been accepted by the forestry department?

CSH: I think very well. I can't speak with certainty; in fact, I've never seen this Forest Products Laboratory.

The fact that the department of forestry and the faculty of the School of Forestry is charged with the management of a research laboratory, that in itself is a stimulating factor for the promotion of research in other fields. You have to have a certain scientific atmosphere to get these things started and this laboratory is a definite agency in which there is both public and industrial interest. Now, if the school and its faculty is made responsible for that laboratory I suspect there will be some "spread of influence" which will stimulate other researchers and aid in the promotion of research in other fields of forestry.

KAB: Is that supported entirely by the University, or does that have private funds also?

CSH: Generally yes, but they may get grants from time to time.

KAB: Do they have any special appropriation from the state?

CSH: I wouldn't think special, although it is possible, even probable, that the legislature may make appropriations for some specific study from time to time. I would think it would be supported by the University budget, just as all these others are. But all departments, some more than others, attract outside grants, especially on research that's important to a private industry.
WKB: What did Professor Mulford think of a forest products laboratory?
CBB: He was always interested in it, but I think he had difficulty in actually determining how to go about a scientific study. He had a very broad and great knowledge of forestry in general, but was not too clear as to just how science could help.
WKB: Well, it is a long way from the old forestry.
CBB: Surely it is. Let's say he was not trained in that way; he was not a researcher; he just didn't quite understand how to go about it.
WKB: Was Mulford popular with the students?
CBB: Very. He was highly regarded by the students and, I am told, he was a popular teacher.
WKB: How was his reputation in academic circles?
CBB: I don't think it was quite so good.
WKB: Because he wasn't a scientist?
CBB: I suppose that's right. But he was a very pleasant individual, a man who saw the potential values of forestry and who made important contributions to American forestry. Through his teaching, writing and editing he helped develop interest in it.
WKB: How would you characterize him as an administrator?
CBB: Quite effective. From the standpoint of budgetary procedures and all that sort of thing, and as chairman of the department for many years, he was effective and entirely satisfactory. But if I have any criticism to offer of him, it would be that he lacked scientific leadership because he was not a scientist and therefore couldn't lead members of his staff into this field.
WKB: He couldn't suggest new programs.
CBB: Not research programs.
WKB: Would he go along with new programs?
CBB: Oh yes, I think so. I've never known of any difficulty there. It's true that in one or two cases his relationships with other members of his staff were not the most cordial, but goodness, that's happened in other departments too. [Laughter]
WKB: Was he an autocratic administrator? Or a democratic administrator?
I would call him democratic. Well, I'll tell you how I felt about Walter Mulford, and my appraisal of him. I recommended to the president one time, soon after we finished construction of the forestry building, that it be named Walter Mulford Hall. Walter was still living at the time, and for some reason the president felt that he couldn't do that because, while the regents have made a few exceptions to it, the general policy has been not to name buildings on the University campus, except for donors', while the individual concerned was living. But within a week or ten days after his death -- I'd retired at that time -- I renewed my recommendation to the president and it went right through.

I gather that was a very popular move with the students too.

Very. And I think it was a well-earned tribute to him because forestry in the University of California, if it means anything, it means Walter Mulford. I regret that he couldn't have known about it.

Do you recall when he retired?

He retired before I. I would guess around 1948.

Who succeeded him?

Professor Frederick S. Baker. He wasn't there very long. Baker retired soon after I did. Henry J. Vaux succeeded Baker. Vaux is one of the young men that I've been talking about, that we brought in -- he was in the field of economics. He was the type of young man that we were bringing in to the faculty of the school, young men with more modern training and more effective training in forestry, and more educational qualifications than the older generation.

When Professor Mulford retired we struggled for a while to find and attract a man with more modern training, who could promote research as well as good teaching. I had one in mind. I thought this position was so important that I asked the president to approach this man. But the president was so busy with so many things at the time that he waited too long and the other man wasn't available by the time he got around to meet him. I learned a very good lesson there: I shouldn't have asked the president to do my job.
I should have carried it through myself. I shouldn't have bothered him. Maybe I would have failed, but I don't think so, because I heard after it was over that we sort of missed the boat on it. But maybe it's all right anyway for from what I can see at a distance and from what I hear, we caught an awfully good boat, with Henry Vaux as skipper.

School of Veterinary Medicine

Early Background

Before you had a School of Veterinary Medicine you had a division of veterinary science in the Agricultural Experiment Station. Now exactly what was that?

I guess Hilgard was the man who started veterinary work in the University. Veterinarians were added to the staff of the College of Agriculture to concern themselves with animal diseases. In the early days there was a little instruction, primarily for animal and poultry husbandry students rather than for the training of veterinarians. California's first attempt in veterinary education was a private veterinary school established and maintained for several years in San Francisco. In the field of veterinary medicine, just as in human medicine, the early developments were in private schools here in the West. That veterinary school didn't last long and for many years California depended upon other states to train her practicing veterinarians.

Was there much of a science of veterinary medicine then?

There were some reasonably good beginnings, but at the time the San Francisco school was started few had reached a level of distinction in this country. Veterinary colleges got started in Europe and were by and large created by the military for the cavalry. Maria Theresa established the one in Vienna and during my period abroad with the Rockefeller group I visited it. That school was established about 1750 and has been going ever since. The same was true in France and Germany. The principal veterinary school
in France just outside Paris was an army development, and in this country we had a veterinary corps in the United States Army up until World War II when they abandoned cavalry.

WKB: Veterinarians inspect food too, don't they?

CBH: Yes, the old bureau of animal husbandry of the USDA had charge, still has charge -- it's under a different name now -- of meat inspection throughout the United States. We were in the University and in our state department of agriculture at Sacramento cooperated with that bureau over the years, not only in the control of animal diseases but also in meat inspection and development of techniques and research that was necessary to improve techniques of meat inspection.

Our division of veterinary science, at the time I came to the University, was generally regarded throughout the United States and even abroad as one of America's most important veterinary centers. When I was on the European staff of the old International Education Board one of my duties was to make a survey of veterinary education and research in Europe, so I had the opportunity of visiting all the important veterinary colleges of Great Britain and on the Continent west of Russia. They had another man doing the same thing here in the United States.

Demand for a Veterinary School in California

CBH: Then just before World War II an interest began to develop here among the livestock people of California for a veterinary school or college in California. At that time there were some ten, I believe, veterinary colleges in North America. One of them was in Canada; the others were in the United States. And there were but two of them west of the Mississippi River, or was it three -- Colorado State and Washington State and Kansas State.

WKB: And Texas A&M. This was in 1940.

CBH: The USDA had said that the nation needed at least one or possibly two more, and I suggested California and Illinois as good places to establish them.
You see, California depended upon other states to train and produce its veterinarians, and if the University of California wanted to enlarge its veterinary staff it had to go to the East. The state department of agriculture had to go at least to Colorado or Washington State. Furthermore, for local practitioners a community that felt it needed a veterinarian would have to go elsewhere to find someone, or if a livestock association wanted to employ a veterinarian. And individual practitioners were always people who came from elsewhere to California and settled down.

What occupations did the division of veterinary medicine train men for?

It didn't do any training. It was strictly experimental, strictly a research group. Oh, we had a man stationed up at Davis in the division to give some instruction in veterinary medicine to animal and poultry husbandry students, and a man from the division of veterinary science doing research in poultry diseases would sometimes lecture, as would others on the Experiment Station staff of the division of veterinary medicine, to the classes in animal husbandry and poultry husbandry. We were training no veterinarians per se.

Was there any training for food inspection?

No, there wasn't.

So there gradually grew up a demand here for a veterinary college in California. The livestock people and the state department of agriculture and the state board of agriculture took the initiative. We, of course, were in on it too, but I think it's fair to say that the College of Agriculture was urged a bit by the demand on the part of the livestock industry of the state. These people took the matter to the legislature.

I well remember that just prior to the war they approached the legislature. They had a bill introduced into the legislature and I was asked, together with Dr. C.M. Haring, who was in charge of the division of veterinary science, and others of our veterinary and animal husbandry groups in the college to appear before the
committees in the legislature to speak in favor of an appropriation to establish a school or college of veterinary medicine in California.

Well, local interests in other states began to think, "Well, if that's good for Illinois and California it's good for us." This resulted in a great increase in the number of veterinary colleges immediately following the war. I don't know how many they have now, maybe too many. [Laughter]

KE: I've read of the need for them before the war, but then I read a comment by Dean Mann that there were already too many veterinary colleges.

CEH: Well, I don't recall that but I think Mann, my immediate supervisor at Cornell and a warm personal friend for years -- no longer living -- might have been willing to modify that statement to the extent of saying the schools and colleges of veterinary medicine were not distributed well in the country. Four of the best, Cornell, Pennsylvania, Michigan State, and Ohio State, were all in the northeast corner of the United States, with Canada's single school at Guelph not far away. So there certainly wasn't any need for any more in the northeast quarter of the United States. But Mann perhaps did not realize as well as some of us living here in the West how sparsely, how inadequately, this great range area of the nation was supplied with veterinarians, and certainly at the time he made that statement he didn't realize how much we were at that time actually using veterinary science in the great poultry industry of this state, to say nothing of the cattle and sheep industries.

I agreed with the statement of Dr. John R. Mohler, chief of the bureau of animal husbandry of the USDA, that two more colleges -- Illinois and California -- could, with the other nine then existing, meet the nation's needs. But we ended up with more, several more, and I doubt if any of them will be abandoned.

KE: It was from agricultural groups, wasn't it, that you got the impetus to establish the school?

CEH: Yes, they were back of it and supported us. And when I say agricultural I mean primarily livestock and poultry people and dairy-
men.

YKB: Did they have associations that lobbied for the establishment of a school?

CBH: Yes, and farm bureau people supported us because many of their members were in the livestock, dairy and poultry business. I would say there was a very substantial and widespread recognition on the part of the California farmers that we needed in California a school of veterinary medicine, and national reputation of the University was so pronounced that everyone concerned with this field at the national level said, "Yes, the University of California will be a good place to develop another school of veterinary medicine."

I remember that the then chairman of the ways and means committee of the assembly came from some county in the northern Sacramento Valley, and he was trying to needle me a little bit. Seth Milligan was his name, and he was quite a character in the legislature for several years. Well, one night I was before the ways and means committee, which was considering this appropriation, and I had told the livestock people who talked with me about this matter that they should ask for a million dollars as the initial appropriation to start the school, because we had to have buildings and laboratories and corrals, but that it would ultimately need not less than two million to complete it.

I said, "I don't want to have anything to do with anything but a first-class school or college of veterinary medicine, and the University of California, I'm sure, doesn't either. And I'm quite certain that the people of California can't afford to have anything but a first-class institution, and the minimum to start with is a million dollars."

Well, that was toward the end of the depression and money was not nearly as plentiful — a million was a lot of money then. So they finally ended up by giving me a half-million dollars and they said, "Now, Dean, if we give you a million dollars now, for this coming biennium, you can't spend it all in the next two years, can you?" And I had to admit, "No." Because it'd take time to plan
the buildings and get all the plans made and the contract let and the building built. So they said, "All right, we'll give you half of that and you come back two years from now and we'll give you the other half."

Well, that didn't appeal to me much for that meant at least three starts, one now, one two years hence, both for a half-million, and more later. But that was the decision. I think that was in the 1939 legislation. And before we could get back for the some half-million we were at war. So it stayed there for a time, that half a million, which was not spent. But the legislators remembered their promise and they boosted it to a million dollars the next time it came -- at just what time during or immediately following the war, I've forgotten. And then, prices began to go up so rapidly that the building and facilities that I, with all the best advice that I could get from our own University engineers and architects, thought we could build for two million dollars, ended up at costing pretty close to five million. It grew a bit in magnitude too. It grew from around two million to something a little less than five million. Before we got the plant built at Davis the University's post-war building program had gotten under way and the legislature was recognizing that their previous appropriations and commitments were inadequate and they just automatically added a certain percentage increase on all appropriations. With those two factors we ended up with pretty close to five million for that plant at Davis.

The interest and support was splendid right from the start. Mr. Milligan, as I said, teased me a little bit, and one of his wise-cracks was this: He said, "Dean, why do you want a school of veterinary medicine? A tractor doesn't have glanders!" [Laughter] Glanders is a very well-known disease of horses. And he saw in his territory that the farmers were getting rid of horses and buying tractors -- true, a tractor doesn't have glanders. But I explained to him that he had other kinds of animals besides horses to think about and we needed to study and treat their diseases too.
I think I saw somewhere that Sproul heard that your school of veterinary medicine was going to be passed, the appropriation, but that the University budget was going to be cut by approximately the same amount of money. He wrote to you asking you whether you wanted the school of veterinary medicine under the circumstances.

I had forgotten it, but if it happened I'm pretty confident that I said, "No." I have never in all the years that I was dean of the College of Agriculture and responsible for that portion of the University's activities encouraged anyone, or had a part of any movement, designed to enable me to build up my part of the University at the expense of some other part of the University.

Was that common, that the legislature would try, when there was pressure for something, to put it in and cut somewhere else?

I wouldn't say it was "common," but I would say that it sometimes happened.

School Established at Davis

It's an interesting story, I think, as to how we finally came to locate the School of Veterinary Medicine at Davis. The war did us a service in this respect. It's hard for me to agree that war is ever good for anything, but the war might have done us a service.

I wanted veterinary medicine located at Berkeley, to have contact with the basic physical and biological sciences here, and I wanted it at Berkeley to have contacts with the medical school in San Francisco. Those were the primary things, but we recognized that any veterinary college had associated with it noises and smells and other things that the rest of the University wouldn't like. But the scientific contact was the one that was most important to me. I visualized the scientific laboratories being located on the main campus here with our clinical facilities, our barns and corrals, etc. on the Gill tract. Then war came on, you see, and we couldn't proceed with anything. But we kept thinking and planning.
Two things happened. Dr. Haring came in one day and he said, "Now, Dean, we've been talking about the scientific laboratories being built on campus and the corrals, barns, and clinics on the Gill tract. But that isn't going to meet all of our needs. We have got to have some pastures and larger corrals and paddocks and so forth. We will probably have to go out toward Walnut Creek for this." This was long before the great sub-division growth began in that area and there was still some vacant land there.

Well, that just clinched it. I said, "Frankly, Haring, I just don't see that. We've struggled here for years trying to develop the College of Agriculture in two places, at Berkeley and Davis. Now you tell me that we're facing a new development in veterinary medicine that has to be located in three different places. I don't think that makes sense. We've got to do some further thinking on this."

This is where the delay that came because of the war was so fortunate. By the time the war was over and construction material was available again the University and the state officials could recognize the great migration of people was continuing to come to California, and that the University had to do something to take care of the greatly-increased student population that ultimately was going to reach it. We began to talk about expanding the work on two of my campuses, Davis and Riverside. And I said, "We can now locate in good conscience and with full confidence this new school of veterinary medicine at Davis, out in the country close to the livestock industry of the state. And we can have through the agricultural departments there and through the new College of Letters and Science that scientific atmosphere and support and cooperation without which you can't have a first-class school of veterinary medicine." The veterinary schools need for support from the basic sciences is similar to agriculture's need for the same thing. That was why it was built there.

WB: How did that work out as far as contact with the medical school, Hooper Foundation?
C3H: That, of course, is not as convenient as it would be if they were just across the street, but over the years in other ways we built that contact. We had one great advantage in that respect right from the beginning, in that Dr. Karl Meyer, who was director of Hooper Institute, his principal interest was in diseases that are transmissible from animals to man.

WKB: I think he started out as a veterinarian, didn't he?

C3H: Yes. His first degree -- just like George Hart -- was in veterinary medicine, and then he went into medicine and he has degrees in both. George Hart did the same. And our people in veterinary medicine in this research activity in the Experiment Station worked in close cooperation with Karl Meyer. They were good friends and colleagues and worked together. So one of the first appointments that was made to the new faculty at Davis was a man that we got from Stanford University's medical school staff, perhaps with Dr. Meyer's help. He too was interested in diseases of animals transmissible to man. Through him and through Karl Meyer and other friends in the medical school who were interested in this enterprise and offered their full cooperation we've developed good contacts even though the campuses are 65 or 70 miles apart. The telephone is there and the comings and goings and visits go on.

Curriculum and Students

WKB: I know you put in a lot of consideration of what kind of a course you were going to have, how long it was to be, what sort of emphasis you would put on it --

C3H: There I must give credit where credit is due, to our veterinary staff, in particular to Dr. George H. Hart and C.M. Haring. Other members of the staff contributed too, but those two men took the leadership in the planning.

We were all agreed -- I can't remember any discordant thoughts at all -- that to do what we visualized would require not less than
two years of pre-veterinary-medical preparation, plus a four-year curriculum in veterinary science. We organized the curricula in such a manner that the first two years were to be taken in the College of Agriculture and the entrance requirements for that would be the same as the entrance requirements for the rest of the University. Then at the end of the two years we would have special entrance requirements for the School of Veterinary Medicine. At the end of four years they would get a bachelor of science degree in the College of Agriculture, and at the end of six years the students would win the degree of doctor of veterinary medicine. I think that is still being done.

We've always had to limit the number of students admitted. The first class was forty and I think the next year we enlarged it to fifty. Currently I don't know how many they are admitting, but as the physical facilities, laboratories and so on, developed, they raised the number of students admitted in proportion to the number that could be adequately taken care of in the laboratories.

WKB: Is this number set by the University's facilities, or do they try to balance it by what is the estimated demand for new veterinarians?

CBH: No, it is set entirely by the University's facilities. We've never tried to anticipate demand or employment opportunities. I don't think that is a good criterion to use, except in a very general way, perhaps in determining the facilities that you have, and their magnitude. I like to think that anyone who is really qualified and who wants to become a veterinarian ought to have the opportunity to become one. Then, after they get out, it's up to them to get at the job of earning a living.

WKB: Don't most of the schools of veterinary medicine limit the number of students from out of state that can attend?

CBH: Yes, they do that. First they limit the total number they can take care of and then there is sort of a gentleman's agreement among them that they will have a few places for out of state or out of nation applicants. When we first started here, as I recall, out of forty we reserved something like five for out of state, and even
in those days we talked about Hawaii as one of the states and provided for at least one from Hawaii if there was a qualified student who wanted to get in -- but he still had to compete with all the 450 or so applicants. We took only about one in ten. The ratio has now perhaps narrowed down a little bit, for there was a great backlog of student applicants immediately after the war. We've always recognized our responsibility to the rest of the nation too because we, for many years, had to depend upon Cornell, Ohio State, University of Pennsylvania, and maybe Kansas and Washington and Colorado to admit students from California who wanted to study veterinary medicine. A little reciprocity has been developed here.

WKB: How accurate are your techniques for screening applicants? When you have so few places and so many applicants you want to try to get people who will finish successfully and stay in the profession I should think.

CBH: Yes. Well, some of my colleagues who have served on these committees are better qualified to answer that than I am. But in a general way I would say that the first criterion is a good high school record, high school grades good enough to get into the University. What these students have done while they were in the College of Agriculture in our University, and the transcript of record they offer if they come from a junior college or other university -- after all, I don't suppose we have anything better than grades to measure a student's accomplishments.

Then interviews with these students. They are all interviewed and the committee on admittance tries to form some judgment of their intellectual capacity and their personality and so forth, and that plays a role in admission.

WKB: I wondered if you'd had a good measure of success in taking in people who really did get through the course and entered the veterinary profession?

CBH: Oh yes. I don't know what the statistics would show. But I know a number of young graduates who are practicing. We aren't just trying to develop practicing veterinarians, however, by any means,
and we're not disturbed when a fair share of them turn out to be interested in veterinary science and want to continue, to teach, to do research. Such men as that are always scarce; we never get too many.

WKH: I should think it's a profession that there would be many side avenues for which the training would be valuable.

CBH: Yes, a very broad field.

WKH: Did you plan to train veterinarians for small pet hospitals?

CBH: Yes. That has been, in recent years, perhaps the most lucrative type or field of practice. So, when we set up the veterinary school, because we had far more applicants than we could admit we wanted to be sure — as sure as can be — that we were going to turn out some of what we called "crossroad veterinarians," people who would be interested in locating in the rural areas and being available to the livestock people. When we interviewed these students, as an entrance requirement, those who expressed an interest in rural matters got maybe some extra points on this examination. We gave a little preference to those.

WKH: Is it economic for veterinarians to treat livestock?

CBH: Yes. But in the early days in planning our curriculum and our school procedures we tried to emphasize first preventive medicine rather than curative, and to emphasize the welfare of the herd and the flock rather than the welfare of an individual animal. Very often the practice of veterinary medicine will differ from the practice of human medicine in the sense that we are thinking of the welfare of the total flock and of the total herd rather than of the welfare of the specific members of it. In curative you are trying to cure each individual and in preventive you can kill them all, you see, to find the diagnosis and to apply the cure. The best example of that wholesale killing I can think of is in our procedures for handling foot and mouth. We've killed off whole herds. I remember in the 1924 epidemic of foot and mouth disease in California of going down to a San Joaquin ranch one time where they brought bulldozers in and dug a trench ten or twelve feet wide and ten feet deep, ran the diseased cattle down into that, and
had men walking around the edges with rifles, killing each animal. Then they put lime over the carcasses and filled up the trench. That's pretty radical treatment, but it does eradicate the disease — not to cure the animals, you see, but to get the disease completely out of the United States so it couldn't spread. Then they would go on to disinfect all premises, barns, corrals, where those animals were, to kill off all the germs, all the virus that could possibly spread to adjoining herds.

The veterinarians use the techniques of preventive medicine, I would say, quite as much as curative. On the other hand, suppose you had a very valuable breeding animal, a very valuable race horse — and when you come over into pets, the dog in any family often is a very important, if not valuable, individual — here people are quite willing to pay for curative procedures for that individual, just like they'd call a physician in if one of the children got whooping cough or something else. Therefore treatment of pets is often the most lucrative practice in veterinary medicine. We know that our veterinarians, our graduates, are human beings, and they like money as well as anybody else, so we wanted to make certain that we would turn out some well-trained and able veterinarians who would want to live in the country and practice with and on farm animals.

One thing that I can think of that we did talk about and plan for and put into operation, and which marked a distinct change in curriculum, was our determination right from the first to put less emphasis on anatomy. When you go back to the German and European schools in the early beginning, anatomy was the basic science taught and, in the minds of our veterinary people like Mr. Hart and Dr. Haring, and their associates, overemphasized. They resolved early in the planning of this work that they would not require students to take anatomy for every year they were in school, so as to have more room and more time for some of the other medical sciences.
Administration

KB: I know you had a lot of problems in how to administer this school -- was it going to be a college, a school, or a department -- ?
[Laughter]

GBH: Yes, those were some things that we talked about. But they weren't troublesome.

You see, the veterinary school had to be accredited by the American Veterinary Medical Association, which had a committee on accreditation, and they would visit these schools, examine the facilities and the curriculum, maybe even the faculty, and then decide whether to give this school an "A" rating or a "B" rating or maybe a "C" rating. Committees of professional associations are, in my judgment, not always the best mechanism for really measuring the scientific and academic attainments of a given school. They sometimes set up a criterion to be met that is not always of as great importance as some of these committee or association members might think.

In veterinary medicine in those days they had certain requirements which seemed to some of us were not well founded. For example, they wanted to disassociate the veterinary school in any university organization from agriculture or any part of the university. They wanted it to stand out by itself on its own feet, and they wanted a dean and a faculty of the school or college of veterinary medicine of its own. Veterinary medicine here in California had grown out of agriculture. We had developed over the years a center of veterinary research here that had attracted national and international attention and some of us believed, just as we did in forestry, that these things should be related to and kept so with agriculture. And the College of Agriculture, in my time, was the organization in the University that we thought of in respect to all of these things. We got around that in California without difficulty because our people in veterinary medicine were with us and didn't subscribe to that philosophy. But even if they had
CBH: subscribed to it, all I had to do was to say when Dean Hart or anybody else came in to talk to me, "I'm not speaking to you as dean of the College of Agriculture. I'm speaking to you as vice-president of the University." And they harmonized with us.

WKB: Well, then sometimes it's necessary to rearrange that administrative chart to fit the prestige demands of an outside organization and it has nothing to do with the administration of the University.

CBH: That's right, and you might end up with something that isn't quite logical from the standpoint of the chart, you see, but what does it matter if you satisfy these criteria and get the job done as you want it done?

Before I forget it, let me tell you of another thing where I had an opportunity again in tying these things together. I think I can, without too great immodesty, claim to have been as much responsible as any other one for getting a division of veterinary medicine established in the Land Grant College Association. It's now the American Association of Land Grant College of State Universities, and when we reorganized that association a number of years ago I proposed to the executive committee that they set up a division of veterinary medicine in that association. In order to recognize the veterinary schools as parts of the land grant colleges and universities, as all of them were but one, they had a little organization of their own, and they'd go off and have a little meeting, just veterinary people, primarily the deans—we established a division of veterinary science in the Association of Land Grant Colleges and Universities. I was a member of the executive committee of the association at the time and had an opportunity there to do something nationally to bring veterinary medicine into our fold and help strengthen its relations with animal, poultry, and dairy husbandry. I believe in that philosophy very strongly.
War Years

How did the war years affect the College of Agriculture?

During the war years, of course, there were a number of members of the staff on war leave. At Davis we closed instruction and turned the teaching facilities, laboratories and classrooms, dormitories, etc., over to the army, and the western signal corps school was established there. As I recall, during the war the signal corps had three schools running to train officers for the signal corps, one in Missouri, one in New Jersey, and the western one on the Davis campus.

We kept the research work going to the extent of the remnants of a staff, and that meant we older people. Several of the older group had been in World War I, and some kept up their reserve officerships and naturally volunteered for duty. Several were in research work for the armed forces, and the rest of us kept the institution going and our regular research activities.

There were certain individuals whom I might mention. Mr. Ryerson, who was assistant dean of the college in charge of the Davis campus, was asked to go to the South Pacific and help grow vegetables for the armed forces in the South Pacific islands as we took them over from Japan and set up camps. He was engaged in that throughout the war.

Dr. Emil Mrak, who is currently the chancellor at Davis, and Dr. Samuel Lepkovsky, who is currently still connected with the Berkeley section of the department of poultry husbandry, whose interest lies in nutrition, and especially in human nutrition, went to Washington at the invitation of the army's quartermaster general. There they were joined by Dr. George Stewart, who is currently at Davis in charge of poultry and food technology, I guess, now. Those three men were in the quartermaster general's office in Washington, and I think it's fair to say that they did more than any other people in improving the rations that the army used in all of its campaigns. It was a very valuable service.
The other outstanding service that the College of Agriculture made during the war was the farm labor program. The Agricultural Extension Service, under the very able leadership of Director Crocheron, organized a separate staff, really, from the Agricultural Extension staff, because they were busy in their respective counties doing everything they could to mobilize information and techniques to increase agricultural production. That went on, of course, throughout the whole nation. Mr. Crocheron ran both shows during the war, and set up his farm labor office down in the Farm Credit Building on Milvia Street and had a staff there. The USDA imported Mexican laborers, some from Puerto Rico and other island possessions of the United States, and before the war was over we had some German prisoners of war imported and sent to California. They were scattered all over the country and worked on the farms and aided American farmers in the production of food.

WKB: Did you say you had to increase the staff of Extension to handle this labor program?

CBH: Yes, we picked up quite a number of people to help in the farm labor program. We tried to maintain our regular educational work and regular activities of the Extension Service, because it was our job to do everything we possibly could to aid California farmers to maintain and, if possible -- and we succeeded in that -- actually increase their production. They had to do it with shortages of labor, shortages of management, shortages of farm machinery, because steel was restricted. Fertilizers and insecticides were restricted. Despite all that, American farmers did a grand job in food production.

WKB: Why did you decide to take on this labor problem?

CBH: Because the President of the United States had declared an emergency, and his secretary of agriculture asked the Agricultural Extension Services of America to do this. We therefore said, "Yes, we will do it for the period of the war." We did such a good job that a lot of California farmers, and this was true elsewhere in the United States, after the war was over still wanted the Agricultural Extension Services to manage the labor program. In California
we politely said, "No, that is not our function. We have done it in an emergency. We will do anything in an emergency that the federal or state government thinks we're competent to do, but once the emergency is over we think we still have an important task in education and research to get back to."

That's what we did, but it created an awful lot of controversy both in Congress and in the Department of Agriculture. And if I may say so, there were some agricultural colleges in America that wanted to continue this, so we had a division of opinion right in our own circles. But those were the colleges of agriculture which had not gained the complete confidence of their constituency in education and research. This was a popular thing. They did a good job, and for the first time their farmers recognized that their agricultural college had something of importance to do for them and they wanted to continue.

This wasn't true here in California, and it wasn't true in Wisconsin, Minnesota, Illinois, New York, and a number of other places, so the opinion of those of us who represented such institutions as that finally prevailed, and we were relieved of that, shall I say, extraneous, though at the time very important task.

WKB: I should think this would have brought in political problems if you continued it after the war.

CBEH: Surely, not only political but economic. It isn't a proper function of an educational institution, except in times of emergency.

WKB: Was your financial support cut by the state legislature during the war?

CBEH: There was no reduction. Of course, we gave people leaves of absence without salaries because they went into the armed forces or some other war job. I can't recall whether our total budgets were less during the war years than they were before. I do recall very vividly that they increased very rapidly after the war.

WKB: Did you have any problem in selecting what research projects to carry on? I imagine there was a great demand for you to do special problems.
CBH: Yes, in all departments, particularly in the production departments like animal husbandry and poultry husbandry and agronomy and horticulture, etc. I suppose there was some shift in emphasis there from long-time basic things to an occasional pot-boiler or something that needed study immediately. Certainly in such departments as entomology and plant pathology there must have been some shift in emphasis on immediate things rather than long-time basic work.

WKB: Were you able to keep your long-time basic work all going?

CBH: Yes, it didn't suffer much. Some, of course. When a man was given a military leave in many cases his work just stopped if it was not concerned with immediate pressing problems. If it was, his colleagues tried to keep it going. Maybe there was some shift in their own work, dropping some of the other things that were going on.

WKB: Was it difficult to get re-established after the war, to get all your research projects straightened out and going again?

CBH: I don't recall any great difficulty in that respect.

WKB: Prior to the end of the war did you try to plan what to do when the war was over?

CBH: Oh, yes. We began thinking of that pretty early in the war period because we had seen what happened after World War I. We began to think and plan for postwar adjustments and expansion. We noted the increased public recognition of the importance of research that came during the war, and we began to think of how this might be taken advantage of in further development of the College of Agriculture and its facilities once the war was over. And true to our expectations, this happened.

The Farrell-Mobley Report on Agricultural Education in California

CBH: Have you read the Farrell-Mobley report?

WKB: I have.

CBH: Should I begin by talking a little of the background of this, as to why we had this study made?

WKB: That would be a good beginning. That report was made in February 1947. When did the situation arise that required that report?
It arose over a period of years. Let's go back and talk a little bit about agricultural education at the high school, junior college and state college levels. In talking about the Davis campus I think I have pointed out that the first instruction in agricultural education offered at Davis by the University — or, it's more accurate to say by the College of Agriculture, because that work never was recognized as University work — in the beginning was about at the high school level. That was before the Smith-Hughes Act of Congress in 1917 that provided for the establishment of agricultural departments in high schools throughout the nation to offer instruction in agriculture at the high school level. Our work by that time had been going on some ten or twelve years at Davis.

Prior to the development of these high schools there had been established at San Luis Obispo an agriculture and industrial school of some sort, but it was a sort of maverick. It didn't fit into any part of the educational system, somewhat isolated. When it was first started the industrial arts were called manual training. That existed a long time. More than once recommendations were made by committees of the legislature or committees of the state department of education, or maybe some of them were even self-appointed, that it be abolished, but it was not.

When the Smith-Hughes Act was passed by Congress that stimulated vocational agricultural education not only in California but elsewhere. But here in California it stimulated a revitalization, rehabilitation, of the institution at San Luis Obispo. It was ultimately called the California Polytechnic College. Before that I think it was called a polytechnic school. Mr. Julian McPhee, a very vigorous individual, one of our own graduates of the College of Agriculture, took it over and began to build it up, and he was quite successful.

Then, with the development of these high schools, there came about nationally the organization of those agricultural students into chapters of what is called the Future Farmers of America. It attracted a lot of very favorable public attention. At the same time there had been started by the colleges of agriculture, before
they had formally organized extension work, what were known as corn
clubs or pig clubs or some other kind of a club for rural youth.
They naturally grew into the 4-H clubs. When the extension services
were established club work was picked up and expanded and further
developed. That was the origin of the 4-H clubs of America. The
same pattern was followed here in California.

Congress wasn't too specific in defining the functions of
these two new agencies -- the Agricultural Extension Service with
its 4-H clubs and the high school departments with their Future
Farmers of America chapters with student projects similar to the
4-H club projects. There was naturally some overlapping and con-
flict. I well remember that at one time -- this was true in Cal-
ifornia and I suppose it was elsewhere -- if a farm boy, or girl,
had been a member of a 4-H club during his elementary school period
and then went on to high school and enrolled in an agricultural
department he had to give up his 4-H club work and join the future
farmers, go over to the other agency, so to speak. That also often
caused trouble and controversy.

This was nationwide. It may have been a little more acute
here in California than elsewhere, but there was a nationwide mis-
understanding here. I think it was fanned a bit here in California
by the fact that we had a localized technical school operating in
this field, which ultimately became a state college. In the begin-
ning the president of that college was also the chief of the bureau
of agriculture education in the state department of education,
which was administering the federal grants to all these high schools.
And when the graduates of those high schools were ready to go to
college he and his teachers were charged, or encouraged, at least,
to emphasize the importance of the lad's going to the California
Polytechnic College rather than to the University of California.

There was no connection between Cal Poly and the high school pro-
gram except for the fact that Mr. McPhee was in charge of both?

Well, being in charge of the distribution of these federal grants
his wishes were bound to be respected. You run across that in this
report, and both Mr. Farrell and Mr. Mobley agreed that that was not a good thing and that these two functions should be separated. I think that recommendation was later put into effect.

This and other areas of controversy all led to a situation which the University and the state department of education felt needed looking into. Each was, through the liaison committee between the regents and the state department of education that had been set up in the meantime, asked to select someone to make a study of the whole situation. I recommended President F.D. Farrell, president of Kansas State College at that time. He had retired from the presidency by this time, but retired very young. The bureau of agriculture education, Mr. McPhee and his group, selected Mr. M.D. Mobley. He was state director of vocational education in Georgia, I believe. All right. Those two men, both able, well-informed, prominent in their fields, came to California to make this study.

Now, it is not at all strange that they were unable to agree on certain things because Mr. Farrell's entire life had been spent in agricultural education at the college or university level, and Mr. Mobley's experience had been in the vocational work at the secondary level. That was bound to influence their judgment. But they did agree on a number of things, and the report was very useful.

One of the specific problems that were bothering us at that time was should the California Polytechnic College -- I don't know whether the name had been changed in 1947 or not -- but anyway, there was a feeling on the part of the College of Agriculture people that California Polytechnic College should not be authorized to give the bachelor of science degree. The authorization of degrees has long been controversial between the University and the state colleges in later years, particularly at the graduate level.

Mr. Farrell took the stand that that sort of education should be at the University level and should be supplemented, should be based upon, and given by an institution that was engaged in
research rather than by one that was not so engaged. Mr. Mobley disagreed with this and pointed out why he thought the degree should be given. Certainly my own feeling at that time was that the training of agricultural education teachers should be in the University rather than in the state college, and that the degree of bachelor of science should be granted by an institution that had research services, namely the Agricultural Extension Station. That was generally the point of view, I think you could say, of most people throughout the country, certainly of those in land grant colleges.

Another point I would like to make here is that there had always been substantial agreement among the farmers of California and among the school people that publicly-supported agricultural research should be in the hands of the University of California and the USDA. Therefore Mr. Farrell, agreeing with that, would also logically say that that is the place where teacher training in agricultural education can best be done and therefore should be centered. But on the other hand, Mr. McPhee and Mr. Mobley argued that we have many good liberal arts colleges giving the bachelor's degree, A.B. or B.S. degree, without engaging in any extensive research program. I would say the two groups just help those two differences of opinion.

That, plus the controversy on the 4-H versus the Future Farmers of America brought about some strained relations. I was interested — refreshing my memory by reading this report — where they pointed out that most of that controversy was at the higher levels in this educational echelon, rather than down where the work was being done. I think that was a fair appraisal. I think some people in the College of Agriculture, for example, were much more concerned about this proper division of labor between these two institutions than were the people who were down at the high school level or the farm advisor level, out in the country where the work was really going on.

WKB: They worked together all right.

CSH: Mostly. By and large they worked together all right.
It seems like there were some public demands for more vocational or practical-type agricultural courses. Of course, you had your non-degree course at Davis, but there seemed to be some request that there be more of this type of work established.

Yes, that's what Mr. Mobley and Mr. Farrell call "parochialism" in their report. That's true. I've often felt that agricultural education had become, in some instances, a sort of fetish with people, that too many local groups wanted a branch of the College of Agriculture in their community, or if they couldn't have that, something like Cal Poly or Fresno State or something. But that again, I suppose, is a part of a general problem, that the public would like to have the University put right at their doorstep, but in the field of vocational agriculture it's a pretty expensive undertaking for equipment and all. It doesn't make much sense to me to have too many of those schools because with modern transportation you can travel easily. True, students can't stay home, but I think students ought to get away from home when they get to the university and college level anyway, if they possibly can. Besides that, the junior colleges are meeting this need.

Now, there's one point in this connection on which I'd just like to record my own views. I've often thought that it would be much better to move our vocational education up to the junior college level anyway, rather than in high schools, and use high schools for good, sound, mental disciplinary work, because so many youngsters did not go beyond the high school. I realize, of course, that since the war the number of high schools graduates now going on to college has been gradually increasing, and maybe 35 per cent of the students now go to college. All right, the other 65 per cent do not. Therefore, if a high school student has been spending his time in vocational work I doubt if he's learned how to think very carefully. If he doesn't go to college he's lost his opportunity. The kid who goes on to college has another chance to learn how to think and to discipline his mind.

I've also thought it would be better for students who were going to live on the land to have had a thoroughgoing, good sound
CBH: high school training with the well-recognized disciplines, and then put this vocational work at a junior college level. Instead, we put it in the high schools and then we worry as to how we can modify our University entrance requirements in such a way that despite that lack of training he can go on to the University. I'd like to see some state just reverse this schedule.

WKB: You'd like to see straight academic training up to the 12th grade and after that you can specialize in your vocation.

CBH: I think the boy and girl, as they come up through the lower schools, ought to have something at every level, beginning with the 1st grade, that will begin to challenge them a little bit to think, rather than making it so easy for them to go on. There's nothing, in my opinion, that contributes more to this lackadaisicalness, or even laziness -- mental laziness -- than vocational work, because there's very little sound educational substance to it. You train them in skills, of course, you train them in the hands. I don't know a better way to get that than a good, sound apprenticeship work in a trade or on a farm.

Mayoe I go to an extreme, but if I were advising a youngster who wanted to be an actual practicing farmer I'd have him become a member of a 4-H club in his elementary school days; I'd have him take a high school course based upon the physical, biological sciences particularly, maybe a little social science, but not as much as many do; then, if for some reason or other he couldn't go on to college, I would urge him to go to a good, sound junior college that would give him vocational work, such as Chaffee, that Farrell and Mobley speak of in this report, and which in my time was an excellent junior college giving vocational work in agriculture in the junior college level.

WKB: One of the criticisms that was mentioned in this report and that they commented on was that the University was viewed as highbrow, or snooty, aloof. What was the background for that criticism?

CBH: Well, we did, in those days, make great emphasis on science for the very reasons I've been talking about, and if that was highbrow or
CBH: snooty I would be inclined to say it was an expression of an inferiority complex on the part of the critics.

WKB: You think what was interpreted as snooty or highbrow was actually emphasis on science?

CBH: Yes.

WKB: There wasn't any feeling of superiority among the University people that was resented by the farmers?

CBH: No, I don't think so. This criticism you speak of here I think was centered largely in the school system, especially school administrators.

WKB: It didn't come from practical farmers at all?

CBH: Oh, perhaps a little of it came from practical farmers, but I think the most important part of it was concerned with vocational high school teachers, especially those who were not graduates of a good college of agriculture, maybe graduates of Cal Poly or something of that sort. I think it was a defense mechanism that they developed. I don't think there was a sound basis for it. I don't deny that it existed because I know it did.

WKB: One of the suggestions in this report was that the officers of the College of Agriculture attend more rural functions, appear at county fairs, and so on.

CBH: Yes, I believe in that. And their suggestions of increasing the numbers of short courses -- we've done that. Now, whether there is as much of that going on today as there was in my time I don't know. I'm out of the picture now. But we recognized that and we had it going. It's just a matter of numbers, frequency. We've held short courses all over the state. We've brought people into Davis, we've brought them into Riverside, and I suppose even into Los Angeles. But we haven't done much here in Berkeley in recent years because here in the north the natural place to do that was at Davis.

WKB: I know that somebody's reply to that criticism was that there were inadequate living facilities at Davis to accommodate conferences.

CBH: We suffered for many years for lack of physical facilities at
Davis with which to do it. I used to use that in arguing for more physical facilities at Davis. But to bring people to the campus, to have facilities by which they could be comfortable, living facilities as well as classrooms. Certainly one would have to say that much progress has been made in that direction recently, and particularly at Davis.

I'd like a comment on this. Both Mr. Mobley and Mr. Farrell seemed to feel that the teacher training program of the College of Agriculture was not adequate. Mr. Mobley used this as a reason to support the fact that Cal Poly should give the teaching degree. And Mr. Farrell said that the program should be improved. Do you feel the teacher training program was inadequate at the University?

Well, maybe we didn't do as good a job as we might have. I can always look back and see, perhaps, places where it could have been strengthened.

Where did they think it fell down?

I think they thought it fell down because we didn't have, as many colleges of agriculture do have and still have, large departments of agricultural education. Now, this college took the stand, in which I probably had a part, that the methods in agricultural education were no different from methods in other education. We quarreled a bit with our own School of Education here and even more violently with schools of education elsewhere because I think ours didn't go to extremes as some have in saying that you needed to have about 9 units of instruction on methods of teaching physics for say 3 units of instruction in the subject matter of physics, or of agronomy. Too often that was about the ratio maintained in some teachers' colleges. So we didn't try, certainly in my time, to develop a large staff of agricultural education people, believing that ours and the students' time and energy had best be spent on sound subject matter with only a few courses on methods. That, I think, was the reason.

Was there any feeling that maybe your course was so tough it was too hard for somebody to go through and then go into agriculture teaching, that he would probably go into the Experiment Station or
research work if he got through?

Perhaps there was some feeling of that. We've often been charged with training people for academic positions in agriculture rather than farming. My answer to that is that if anybody needs to have a disciplined mind and a broad field of knowledge it's an American farmer. And particularly is that true, as Mr. Mobley and Mr. Farrell point out, here in California agriculture, that the agriculture of no other state depends as much upon science and engineering skills as does California agriculture. And hence our interest upon science as contrasted to the emphasis upon skills.

Did this report bring about more peaceful relations between the vocationally oriented people in the school system and --

I'm inclined to think it did. I don't know how widely the report was distributed. I don't want to emphasize the controversy too much. There was some controversy there. I think it alleviated that a bit. I'd like to hope that it did. But I think it was good to have some independent people come in and take a look at our house and tell us what housecleaning was needed -- to make an appraisal of it. To the best of my knowledge...there've been compromises. I myself have felt that we've done rather well, recently, in agriculture in working out a proper division of labor between Cal Poly and the other state colleges on the one hand, and the University and its College of Agriculture on the other. We went counter to their recommendations, to be sure, when we dropped the non-degree instruction. But I think it was quite proper for the University to give up instruction at that level since we've developed these other institutions in the state that can do it. Oh, I know there was a lot of interest on the part of many good farmers in this phase of the University's work. Some of the best farmers we have in California today are graduates of that old University Farm School. I'm kind of proud of that. I think the University did a piece of pioneering work and did it well.

I think Mr. Farrell and Mr. Mobley suggested you keep up the two-year non-degree course to be sort of a guiding light for the other
institutions that had a similar course, or to keep the standards up on that two-year non-degree work.

CBH: I know they made that statement, but I would prefer to trust the other institutions to do a good job at this, and the University can encourage them to do just that. But I don't think we have to make models at every level of education.

I do believe that the University should always continue to train teachers in agriculture, as well as other fields. I would say educate men and women first and then turn around and train them to be good teachers, and a few in all fields and at all levels. I think the university influence and the type of thinking that you get in a good first-class university curriculum needs to be felt in our lower school system throughout the state. We shouldn't aspire to train all of the teachers in any field. It's impossible. But the influence of able teachers with university education and training is important. They don't all have to come from the University of California. Why, I'd take them even from Stanford, [laughing] or from universities elsewhere. I somehow associate university work with research, and certainly with a disciplined mind, and I think that is needed down in the lower schools.

Of course, here in California I predict all enrollments in the field of agriculture are likely to decline in the future, because we are reducing the number of farmers all the time. That's true elsewhere in the country too. I see no urgent reason for developing more centers of education in agriculture. Maybe we could use a few more junior college departments, however.
ALL-UNIVERSITY PROBLEMS

KB: Were you active in University affairs outside of the College of Agriculture?

SBH: Yes, I always tried to respond every time the president or somebody asked me to serve in any way they thought I could help.

KB: Did that kind of work take a large portion of your time, or was it minor compared to your intra-College of Agriculture work?

SBH: Oh, it was minor. I suppose I did more of it toward the end of my administration after I had been made vice-president of the University. I had something to do with the establishment of the new colleges at Riverside and at Davis, because this development was to be on our own campuses. I had something to do, in the early days, with Santa Barbara. I tried to help on some of the problems over at the medical center. I enjoyed that and I liked to do it. It wasn't burdensome. Naturally, I've always assumed that the president and the regents expected me not to forget that my first responsibility was the College of Agriculture and, of course, that was my first love.

Academic Senate Work

KB: Do you want to get into your work on the academic senate, or do you recall much of that?

SBH: Well, aside from the senate's committee on committees, and a few ad hoc committees, I was not very active in academic senate matters. I was a member of the committee on committees for oh, maybe eight years, and chairman for three. That was along in the thirties. I was made a member of the committee on committees when I became dean and succeeded Dean Merrill. He was a member of the committee. When he dropped out in the middle of the year I succeeded him and then the next year it went through the normal process and I think I continued to serve through most of the decade.
K3: Do you remember any special problems on the committee on committees that came up during that time in the thirties when you were a member?

CHH: In those days we were always wrestling with representation on the committee on committees, and some parts of the Berkeley campus were clamoring always for representation. I never did, myself. I always thought that the committee on committees should represent the University, not any particular segment of it. Now, down south they evolved a scheme where they had actual representation of various groups or segments on the campus. They passed it around in rotation and they maintained that representation. I don't know whether that was any better than our scheme here or not. Some would argue that at least it was more democratic.

K3: You thought that each man on the committee would represent the whole University, members-at-large.

CHH: That's right. At that time we didn't think of departmental or even college representation on the committee on committees. We would try to select members of the committee on committees whom the faculty believed had a broad interest in the total University. Now, that wasn't entirely satisfactory to some departments.

The academic organization of the University has now become so complex that I no longer try to keep up with it. I suppose complexity is inevitable, Mrs. Baum, as the University grows larger. I think I can sense today, in talking with some of my former colleagues, a deterioration in University unity, certainly in what I still persist in calling the College of Agriculture. I regret that.

K3: When you speak of University unity, did this University unity include UCLA and UC, or were they each always separate in feeling?

CHH: I'm afraid that there was something of a separateness besides geography right from the beginning. At first we called the development at Los Angeles the Southern Branch of the University, and that hurt some peoples' pride, and it didn't last long. When it was organized as the University of California at Los Angeles I
think that tended to bring in some separation. We didn't like to admit such separation, and Mr. Sproul did everything humanly possible, and I sometimes think more, to hold it together.

I tried to do the same thing in agriculture, and I didn't have much trouble in agriculture because it was the College of Agriculture. That was a factor of unity itself. True, it operated on four of the University's eight campuses, but there was unity there. We had a fabric of our own which I tried to develop and promote and hold intact, and at the same time weave our fabric into the University's fabric at Los Angeles and Berkeley. I think that structure of the College of Agriculture has been pretty well broken down now.

WKB: Do you feel there has been any change in the unity of the University of California at Berkeley? Was it always a unified campus, or do you think there was a tendency later on for the different colleges and departments and so on to pull away from each other into little blocks?

C3H: In my time there was great unity. There is still unity here. I haven't recognized any disintegration here in that respect.

WKB: You were on a committee on administrative travel. I wondered what the problems were that they considered. I think that was about 1950.

C3H: That was to evolve a scheme, if possible, that would bring some coordination into the travel system. The board of research handled research travel. That was to enable the University to help members of the faculty attend meetings of learned societies and present papers. That was what we called academic travel. We also had provision for administrative travel, and this committee you mentioned was an attempt to begin to bring some coordination into the requests for travel grants for administrative officers to visit other institutions or other parts of the country for administrative purposes.

Again, in the College of Agriculture we at one time, at least, were probably concerned with more administrative travel than most other parts of the University, because of our connection, and our
cooperation and association with the USDA and the Land Grant College Association. I suppose that was one of the reasons why the president asked me to serve on that committee.

Was the purpose of this committee to cut down the amount of travel or to make more travel funds available?

I would say that the primary purpose was to make our limited funds go as far as possible, because in those days the University didn't have as much money for those things as it now has.

Did you try to set up some system of priorities?

Yes, we tried to set up some measure of priorities and fairness and so forth. Again, it was an attempt to unify the University and to give everyone as nearly as fair as deal as possible. I don't know that I was always consistent there because we in agriculture had certain responsibilities placed upon us by federal law and by the California legislature which required travel.

You often went to Washington for the Land Grant College Association meetings. This would come under administrative travel.

Yes, and since the College of Agriculture was scattered in four different places it was important, I thought, for my chief assistants at Davis, Riverside, and Los Angeles to attend these meetings once in a while. We had at the same time the directors of the Agricultural Experiment Station, Extension, resident instruction, all of whom were taking important parts in their respective sections of the Land Grant College Association. It used to worry Dr. Deutsch a little bit because he thought the College of Agriculture was getting more than its fair share of these limited administrative travel funds, or at least were permitted to use its expense and equipments budgets too freely for such purposes.

What were the problems of the advisory committee to President Sproul that you were a member of? I don't know what the work of the committee was. It was in the 1950s, probably shortly before you retired. Was that on decentralization?

I can't recall. Who were some of the other members? Was it held in Santa Barbara?
KB: I don't think so. Just "special advisory committee on special matters," and I don't even have the other members listed here.

CBH: Was it an ad hoc or standing committee?

KB: I don't think it was a standing committee.

CBH: Oh, I think you are referring to the president's advisory committee which he set up during or right after the war. That was sort of a president's cabinet, I would call it. We met about once a month, usually alternating between Berkeley and Los Angeles. The provosts, vice-presidents; and the vice-president and dean of the College of Agriculture of the two main campuses; the comptroller, as he was called in those days, now vice-president for business affairs; the director of University Extension; the chairmen of the two senates, north and south; committees to advise the president, and possibly others -- the chief administrative officers of the broad segments of the University -- we met regularly to talk over many things. This was established after the war, as I recall.

KB: These were all administrative matters.

CBH: Yes, of interest to a part or all of the University.

KB: Was this where President Sproul would let you know what the general policy was?

CBH: Yes, but we would help the president to make the policy. It was sort of a working committee affair. We would discuss problems back and forth, and out of it would come policy decisions.

KB: Did President Sproul usually make the decision, or did you all jointly --

CBH: He ultimately made the decision, of course, but it gave him an opportunity to discuss the matters with various people and get their points of view. I can't describe it any better than calling it the president's cabinet.
Problems of the Medical Center in San Francisco

VKB: You mentioned that you had been part of a group that was concerned with whether the University of California Medical Center should remain in San Francisco or be relocated in Berkeley. What was that all about?

CBH: Well, certain members of the academic senate here proposed rather vigorously -- this was before they began to build the hospital and the new buildings, new facilities, that have been erected in recent years on the San Francisco campus -- they revived an old idea that the medical center should be here on the Berkeley campus.

I got into that because most of the medical faculty over there were opposed to this proposal and they knew that the College of Agriculture had been operating with a reasonable degree of success two outlying campuses that were worthy of University recognition. So with that background they thought that maybe I could come over and help there, and I did that, too.

VKB: Why should the medical center be in San Francisco? Of course now they have the hospital there, but before they had the new facilities.

CBH: Well, that raises the old question of where medical education can best be done. In the early days before modern transportation, medical schools were always located in large centers of population, cities, so they would have clinical material. Now, with modern transportation, that's no longer as important as it used to be.

VKB: But when they wanted to move the medical school over here those conditions didn't exist any more.

CBH: Right, but they had the old University Hospital, and some other fairly modern buildings, and there was quite a plant. And on the faculty there, of course, there were many clinical professors who had their own practices downtown.

VKB: I wondered if that wasn't a more significant factor than the plant, just as you had a hard time moving your professors to Davis.

CBH: That was certainly in the picture. There's no question about it.
But goodness, if we had moved the medical school over here, with all the growth that has since taken place on the Berkeley campus, it would have taken the rest of Berkeley! Now, you can see from the standpoint of the mayor of the City of Berkeley some advantages in leaving it where it is. And from an education or research point of view I'm sure it's operating all right.

At one time a portion of the medical faculty was on this campus. That was true up until just a few years ago. And students really took their first year of medicine on this campus, because it coincided with the last year of their letters and science work. But now I think they require an A.B. degree or B.S. degree for entrance to the medical school, and students begin their work in medicine in San Francisco now.

Well, today most, if not everyone, would admit that the best place to build a great medical school is on the campus of a great university, for the same or similar reasons I maintain that's the best place to build a first-class college of agriculture. But the same or similar reasons that I have mentioned in agriculture make this unfeasible, if not impossible, on the Berkeley campus. And that's exactly what the University of California did with its second medical school at Los Angeles. They built it on the main campus there, and I think that's ideal. In fact, Dr. Wallace Buttrick -- one of the early people whom Mr. Rockefeller gathered around him when he began to think and plan and actually devote portions of his great fortune to education and research, and they got into the field of medicine, set up the Rockefeller Institute for Medical Research in New York City -- Dr. Buttrick said one time to me, "If we had it all to do over again I don't think we would locate the institute where we did. We would locate it on or adjacent to the campus of a great university."

Was it a committee that discussed that problem?

Well, I don't think we had gotten to a committee. I don't think we used committees in my time as much as they do now. But we had
debates on it, both on this side of the Bay and on the other side. And there were differences of opinion in the medical faculty over there, as well as here. There were some who were all in favor of coming to Berkeley, particularly those members of the faculty of the medical school who lived in Berkeley and had their laboratories and their work here. The clinical professors and some other people who lived in San Francisco and had their homes and practices there didn't want to move, so those were the factors which we had to harmonize as best we could. The decision was finally made to keep the medical center in San Francisco, and the physical facilities so urgently needed have been developed there.

W2: I believe it was shortly after that that you got involved in the problem of Donner Laboratory and their work in medical physics, and the fact that this was medical research being undertaken under the physics department and with no connection to the medical school.

C3H: Yes. Here the medical faculty had just gone through that controversy about moving to Berkeley and the decision had finally been made to continue to develop the medical school on Parnassus Avenue in San Francisco. Then on this side there was Dr. John Lawrence and his associates who in the Donner Laboratory were working on radiation treatments. And they wanted to treat patients on this side. They wanted to provide hospital care for -- I think they were talking about four or five or a half a dozen beds, for patients. Of course the medical school didn't think they knew anything about taking care of patients, that that was an aspect of medicine that belonged over in the medical center. And there was a little conflict of interests there. John Lawrence --

W2: Now, he was an M.D., is that right?

C3H: Yes, the brother of Ernest, and he is the director of the Donner Laboratory. He's built that whole laboratory. It's all been built around John Lawrence, as I understand it. He was using radiation in the treatment of cancer, and maybe other diseases.
CBH: And he wanted hospital facilities here. I think they did use beds for a while in Cowell, but Cowell is a student infirmary and he wanted to develop some of his own facilities.

The people over on the other side took the stand that he did not know anything about caring for patients, although I don't know whether he's had any medical practice or not. He undoubtedly had some internship in his medical training. But anyway, they didn't like to see that phase of medicine, at least, developed on this side. And they in turn wanted to do some things that were much in the same field as John's, the use of radiation and the new isotope techniques that were developing in medicine, so there was a bit of conflict. And I umpired that scrap. There must be a report. You should be able to find it in the files. You have the date, don't you?

WKB: It was 1947. Do you remember who was on that committee?

CBH: I've been trying to recall. I remember Dr. Robert S. Stone. And Dr. Rheinhart might have been on it also. And I think Lyon Chaikoff was on it. John Lawrence was on it, of course, and one of his immediate associates.

WKB: Was this sort of a jurisdictional dispute?

CBH: Yes, to a large extent, although there were good arguments on both sides.

WKB: There was no conflict over carrying on medical research?

CBH: No, both groups were interested in medical research.

WKB: Except under the hospitalization.

CBH: That was the principal concern of the medical group. This was very new, you see. This whole field was just being opened up by the University, and the medical people rather logically, it seemed to me, were a little concerned lest this new development in the field of medicine be denied them. They felt that the University ought to provide for that development at the medical center, not on the Berkeley campus.

WKB: Was there any consideration of having some kind of medical school
supervision of Donner Lab over here, or reporting through the dean of the medical school, or anything like that?

CH: Well, such supervision of the proposed facilities for patients was debated, yes.

KB: Would that have been feasible?

CH: I suppose it would, and yet that was to be a rather small adjunct so far as the medical school is concerned, and it seems to me it would have been rather difficult to arrange. I personally saw no reason why the Donner Laboratory staff shouldn't do what they wanted. They only proposed four or five beds for observation purposes. And as I recall we came to that conclusion.

KB: I should think the medical people would have been concerned, though, if this developed into what was a medical research project under the Donner Laboratory.

CH: Yes, but those things never bothered me, if you've got competent people to do the job. And I'm confident that the Donner Laboratory staff, if they had gotten into any serious difficulty with patients, they would be the first to appeal to the medical practitioners and hospital people to help them solve the problem. But from my point of view, from the research point of view, they needed these facilities for observation and care of patients following or during treatment.

KB: I was wondering if John Lawrence would have been able to work under medical school supervision.

CH: Well, I wouldn't know about that, but I would say he was a man competent to do his own job without supervision. And I don't think the medical people had supervision so much in mind. I think there was a bit of fear that the University was proposing now to start out in a new, a very interesting, a very promising field in medical science without any connection with the medical school. I think they feared that more than anything else.
Work on the Northern Committee to Consider a New Director of Extension

MB: You were a member of the northern committee to consider a new director of Extension. I believe the situation was that Leon Richardson, the previous director, has retired in 1937, and that no new director had been appointed. Extension policy was being handled by a faculty committee, the advisory board of Extension division, headed by Armin Leuschner. Do you recall the details of your work on that committee?

CSH: Here was a case where a considerable number of people were not too pleased with the way University Extension work was being handled, and I personally had one point that seemed to me was all wrong. It was in the midst of the depression and University salaries were very low and too many of the departments found an opportunity to attempt to attract young instructors to their staffs by holding out the possibility of a young man's supplementing his University salary by teaching Extension courses. Extension work was something outside their normal University duties, something they could do on the side to increase their income.

That procedure was bad both for the University and the young man, particularly for the young man, because he was encouraged to take an outside position merely to increase his income and to spend his time and energy in teaching Extension courses when really he should have been encouraged to be using that time in writing and creative work to establish himself in his field of scholarship. It was bad for the University because in those days there was a general feeling among the faculty, particularly in the academic departments, that Extension work was something if not beneath the dignity of the University, something not regarded as a fully respected dignified academic undertaking. This use of Extension teaching to improve income tended to promote this academic disrespect.
Extension courses were offered on the campus for University credit to enable students to make up matriculation deficiencies, or to give them another chance to make up grade-point deficiencies. All of this tended to place Extension work and anyone who engaged in it in academic ill repute.

I don't think you can say they were critical of Leon Richardson for that, because he wasn't forcing it on them. I think the faculty itself was more at fault than he. Many professors themselves didn't want to be bothered with Extension work, unless they were paid extra for it. It seemed to me that a department should regard Extension teaching as one of its regular functions and take that into consideration in determining the teaching load or assignment for every member of the department. I'm not saying that every member of the department ought to be required to do Extension work, far from it, but when they have in their department men or women well qualified to do Extension work I think that should be regarded as part of their annual duties, and not something to be used to supplement their salaries. That dignifies Extension work.

WK3: Would the rest of this committee have agreed with you that Extension work should have been a part of the department's work?

CBH: Not completely in those days, and I am sure some would not agree with me today. Those were some of the arguments and points of view and problems that we wrestled with and were probably some of the reasons why it took three or four years before we were finally able to determine upon an Extension director in 1942. Of course, Baldwin Woods had been not only a teacher in engineering, but a University officer, an administrative officer, back under the Campbell administration, and a very prominent member of the University family. It was a very wise choice. And he made distinct improvements in some of these things which I'm talking about.

WK3: Were they critical of Richardson for the low caliber of Extension courses?
Yes, but I would guess that the criticism was perhaps more on the quality of the staff that he selected.

You see, there were conflicting ideas there, and they weren't altogether logical in their criticism, these people. Some people didn't want to do Extension teaching themselves and some wanted to preserve this opportunity to increase salaries for their younger people. In these circumstances Richardson had little more than two choices -- find most of his staff outside the University, or depend upon young, inexperienced instructors. We ought all of us to have been pounding away and making every effort that we could to improve salaries so the youngsters wouldn't have to resort to outside work but would have some time for the further advancement of their own scholarship.

Well, there was the depression. And we were getting into World War II and the circumstances and conditions were troublesome and it took a little time to work it out.

WE: Was Extension getting any money from the state or the University?

CEH: A little, but very little. It was practically a self-supporting activity. I think that in those days the total contribution from the state in the budget was only about $50,000. They had to charge fees, which was all right, but they had to be such courses as to attract the interest of enough people to plunk down the dollars to enable them to operate. And I think Leon Richardson and certainly Baldwin Woods in the early part of his administration struggled a bit to do that. But today the University Extension is highly prized by the public. Think of all the wonderful things that they are able to bring to this community, to say nothing of other communities throughout the state where they operate.

WE: I should think they would have the same opportunity as Agricultural Extension to sell the University to the citizens of California.

CEH: Surely. And I think the University should recognize that too. And I assume now that that portion of the total budget of University Extension, the funds derived from appropriations, has been
increased. It should have been.

Let me mention another point, however, in defense of the University administration. That is that there has been a lot of feeling in the legislature and in the public mind that this is adult education and that adults should pay for it. You've got to strike a proper balance there.

In reading between the lines it appeared that the advisory committee to the director was having such a good time running the show for a number of years that they just wouldn't appoint another director.

Oh, I don't think that that was a controlling factor because as I recall the advisory committee was made up of very serious-minded people interested in the University's welfare, and so forth. But there could have been among them a difference of opinion as to just what should constitute Extension work and where its proper place in the University is. Perhaps my experience in Agricultural Extension work made me a little more liberal, or gave me a little different point of view. I liked to see the University always doing something more than just living in an ivory tower.

It sounds like your inclusion in many of these committees was for the very purpose of bringing in this important non-ivory tower point of view. You mentioned that you were on this medical school location committee because of your experience of having two outlying campuses under your direction.

I think it's fair to say that no one questioned my ideals of scholarship; I'd hate to think that anyone did. But I did want the University to be useful beyond its campuses. The University is a human organization. Its purpose and its function is to promote human welfare in the broadest sense of the term. I'm perfectly willing to have a few ivory tower cabinets around, and occupied, but if all of us crawled into an ivory tower compartment the University, I think, would suffer.
I used to advocate that we would never have the University Extension work on a proper basis until it was recognized as a proper and legitimate part of faculty service. My philosophy was and still is that if University Extension is going to be made academically respectable, it must be regarded as a respectable duty and the teaching program of more people involve an Extension course every once in a while as well as teaching in the classroom on the campus. And certainly the time required to do both of them should not be so great as to prevent the man from continuing his scholarly, creative work. We in agriculture recognized all of these functions and engaged in all of them.

In other words, you feel that eventually the whole University must be more patterned on the way the College of Agriculture is, more public service and outside teaching -- have a greater impact on the community continually.

Well now, let's not go to the extreme, let's keep a good balance. But why shouldn't the department of history as a part of its program pay its professors to give some public lectures? From the standpoint of the University I ask the question, why shouldn't that be done? From the standpoint of the legislature I can see why they might oppose that. They might say adult education should be paid for by the individual himself. And I can accept that sort of a philosophy, but the Congress of the United States have said that in agriculture that is what they want done. Now, if it's logical, if it's proper to do it in agriculture, I ask why it isn't proper to do it in all fields of education? So I believe in publicly-supported adult education. I don't think that we should say to an adult, "Now, you've got to pay for this yourself by fees. We're only going to provide public funds to do it for the youth." Don't we say that education is a lifelong process?

I think you'd be regarded as a traitor to the farm group, maybe.

Why?

More taxes. [Laughter]
CHE: Oh, you can argue on that, but I believe so strongly in Jefferson's philosophy, the importance of education, that I think we've got to support education substantially by public funds. Don't misunderstand me. I hope nothing will ever happen, that Stanford and other endowed institutions will not go out of existence.

WKB: You want the maintenance of private institutions alongside the public.

CHE: By all means.

The Loyalty Oath

WKB: The loyalty oath caused a great deal of concern for several years. Do you recall the background of that?

CHE: Well, I haven't any inside information, but I think this is known, perhaps not by everyone. This started over and as a result of legislation that was introduced into the California state legislature soon after the war.

WKB: This began in 1949. I believe that was the era of State Senator Jack Tenney, wasn't it?

CHE: Yes, and Mr. Tenney had been chairman of a state committee of the legislature, an un-American committee. He was convinced that there were people in California as well as elsewhere in the nation who were not, let's say, as good Americans as was to be desired, and he was convinced some of those people were in the school system. So he introduced into the legislature some bills designed to require an oath of allegiance of some sort, and an oath of disavowal of communist beliefs and connections, etc., that teachers would be required to take. Well, we must, I think, in all fairness accept the fact that there was a good deal of hysteria among the people of America at that time. It was just after the war was over and after Russia and the communists had started their worldwide expansion and had taken over the governments of some of the
adjoining countries. There was a lot of unrest in the world, and a lot of apprehension on the part of a goodly number of people in America and, as I say, some hysteria.

Now, I think we must also remember, in any attempt at analysis of this situation so far as the University is concerned, that the regents have always been very zealous of their constitutional freedom. The constitution of the state of California sets up a corporation known as the regents of the University and charges it with the conduct of the University enterprise, and makes specific provisions that it shall be free of all sectarian and partisan influences or pressures. So over the years the regents have been very zealous of that power and that responsibility. They have not looked with favor upon the legislature or anyone else directing what to do.

For example, long before this oath controversy, when legislation was introduced and passed by the legislature requiring all educational institutions to offer instruction in American institutions, the University and the regents declined to do that for two or three years, and then turned right around and set up their own requirements to accomplish the same purpose.

In other words they didn't want the legislature to tell them what they had to do, even though they might agree in principle with what the legislature was doing.

Yes. Now that, I think, is a very important point for us all to remember in this oath controversy.

All right. With that background, Mr. Corley, who was the regents' representative at the legislature, and knowing that attitude of the regents, came home and urged President Sproul to recommend to the regents that they do this immediately, take their own action, that regardless of what happened at the legislature or elsewhere, the regents should do this on their own accord.

I am told that there was considerable debate among the regents as to whether or not this was a wise thing for them to do. Finally
they were persuaded to do so. One of the opponents to the proposed action on the part of the regents was Regent Neylan. He argued against it, but he was ultimately persuaded by the rest of the regents to go along with it. He went along, at least, with some reluctance. Then a few people, very prominent professors, very able scholars, concluded that this was not a wise thing to do and protested so vigorously that the president was persuaded to go back to the regents and reverse his recommendation, request that this not be done.

Now, whether that step was taken before another action by the legislature was taken, I don't know. But ultimately the legislature adjourned without any of Mr. Tenney's bills, and there were two or three of them, getting out of committee. So at that point if you stop to look backward there was really no substantial need for the regents to have taken this step. Certainly there was no need for the president to have made the recommendation. They were placed in the position of having demanded this loyalty oath of the University faculty and staff whereas the legislature declined to require it of other state employees.

WKB: How did the faculty of the College of Agriculture feel about it?

CBE: Some among us, and I was one, felt that we were not giving up any special rights, and that if the governing body of the University wanted us to do this we would do so. I was perfectly willing to take such an oath, and I think the great majority of people did that. I know that in my part of the University there were only two young men who declined out of a total group of twelve or thirteen hundred people. So we took it as a matter of course. I know that on one of the outlying campuses of the University when the controversy broke and before the president had reversed his position on it, a statement was drawn up and maybe it was actually being circulated for signatures that the faculty and other University people were willing to support the president's recommendation that such an oath be required of all University people.
This was a petition in favor of the oath.

Yes, in support of the president's first recommendation. And it was started by some very, very loyal people in the faculty, not only loyal to the University but loyal to the president too. They wanted to take this way of demonstrating both to the president and the regents that they were willing to take the oath and that they were supporting this proposal. Of course, when the president reversed his position on it, you see, then that petition stopped, and people just began to wonder.

Was this petition started before or after the academic senate asked the president to rescind the oath?

It was started after the academic senate had begun to debate the matter, at least.

Then, you see, Mr. Neylan became rather prominent in the controversy. A lot of the faculty people have condemned him rather severely for the attitude that he took in it. What I'm trying to do here is point out that his original thinking was against the oath requirement and that he was persuaded to do it, to agree to the oath. Then, when he was suddenly requested to rescind that --

Was it stubbornness?

I don't know whether you can call it stubbornness or not. Anyway, it was a pretty big step for him to take, to reverse his position, you see, and led to some rather grave difficulties and unpleasantness.

Finally -- this is well-known -- the whole controversy led to the discharge of several very prominent and very able people who conscientiously objected to taking this oath. That was a very unfortunate situation which attracted national attention, and which took several years ultimately to work out in a satisfactory way. It certainly left some scars on the University. Some people held strongly to the view that it would prevent the University from recruiting and attracting able people. I know of no case where that was true. There may have been a few cases in some departments.
KB: As far as you know, it didn't damage the College of Agriculture?

CBH: No, none whatever. As I say, we ultimately lost two young men, but we had gotten along without them pretty well before they joined us, and to the best of my knowledge the college got along pretty well after they left.

KB: I wondered if, to your knowledge, either President Sproul or Mr. Corley had talked with any faculty members about this oath before President Sproul recommended it to the regents.

CBH: I don't know, but I would rather guess that they hadn't.

KB: I understand that prior to the oath there was quite a furor because Harold Laski, whom some people thought was a communist, was invited to speak on the UCLA campus. Provost Dykstra, according to the report he later presented to the regents, kept trying to get in touch with President Sproul to find out if he should or should not permit Laski to speak. It was quite a comedy of errors, but it seemed from his report, which I read, that he felt that one of the greatest difficulties was that he was never able to reach Sproul when he had to make a decision as to whether to invite this man or not. He would be told by the office staff that Sproul was unavailable. This also seemed to me a problem in the day-by-day events that transpired with regard to the oath, that when a decision had to be made by someone no one could get in touch with Sproul. Was this a common condition? Did the office staff seem to keep people away from Sproul?

CBH: I have never, in my connection, felt that the staff was preventing me from seeing the president. But in those days I did often wish I could see the president more frequently.

KB: In some of these things I had the feeling that Sproul was held almost incommunicado by his staff.

CBH: That could have been, but I rather doubt it.

KB: And I wondered if you had ever come across anything like that in some other situation.
I never felt it. I must be perfectly forthright here. I did wish at times that I might have the opportunity to talk things over with him before I had completely made up my own mind, as to what should be done, and benefit from his thinking. But when I would telephone over for an appointment and sometimes have to wait ten days, two weeks, even longer, I just had to take it upon my own shoulders, make those decisions, and put it up to the president in the form of recommendations. One time, in his presence, I jokingly remarked that I had to subscribe to the Berkeley Gazette to find out what he did with my recommendations. But it was all good-natured, and that was just my way of getting the job done. The president never objected to it, at least to me, and I've always assumed that he was rather glad when I could handle matters myself.

I think Neylan felt a good bit of this oath business was stirred up by what he termed "campus politicians." Do you think there was an element of campus politicians or rabble-rousers that stirred this up beyond these faculty members who conscientiously objected?

I was never conscious of that. Now, there might have been some among them who were doing that sort of thing. But looking back on the thing it's my impression that the group of dissidents based their opposition on principles of freedom and personal dignity and rights, which in their minds were of grave importance, rather than rabble-rousing and the like.

Would you have been able to take a very active part in the oath controversy, being an administrative officer?

No, I don't think so. No, I never felt that I should. Certainly in my own group I never tried to influence anyone. I'd tell them how I felt about it, but I wouldn't try to influence their own thinking. And I didn't take a very active part in it. I was a member, of course, of the academic senate. I sat through many of their meetings. I didn't participate much because I felt that as an administrative officer I should not do it. The administration
had made one decision, and then when in my judgment it reversed
that decision — some people might argue that it didn't reverse
it, but I can't describe it in any other way myself — then I felt
I should not take an active part one way or another.

In this book, *Year of the Oath*, by George Stewart, he suggests
that maybe behind this oath, or at least behind the insistence
on the oath once it got going, was some Associated Farmer pressure.
The Associated Farmers of California had been attacked by some
members of the faculty, and Regent McFadden, a strong pro-oath
regent, was a member of the Associated Farmers. And Neylan had
worked with the Associated Farmers, and he was the strongest
leader of the pro-oath regents.

Well, I know something about the Associated Farmers. In fact, I
have been publicly charged with being the father of the Associated
Farmers. I have said that I could not claim that honor, but I was
perfectly willing to be called one of the midwives, because I had
some knowledge of farm labor trouble down in Imperial Valley in
1933 or 1934 out of which came the organization of the Associated
Farmers. I have also said publicly on several occasions that in
my judgment that group of California farmers who ultimately formed
the Associated Farmers of California was the first group of people,
certainly in California and certainly one of the first throughout
America, to recognize communist infiltration into American activi-
ties. I don't think there was any doubt but what that element
was in California agriculture at the time.

I recall your report when you investigated down in Imperial Valley.

Yes, out of it came the Associated Farmers. For a number of years
I was rather closely associated with that organization in a
friendly and advisory capacity. Some of my acquaintances among
the labor leaders of the state thought I was a facist I am sure.

Do you think there was any connection between the Associated
Farmers and the insistence on the oath?

I know of none.
SXB: Teague and McFadden and Neylan all voted for the oath every time, and all of them were closely associated with the Associated Farmers.

CBH: Well, Teague and McFadden were farmers, you see, and they, of course, knew about that organization, whether they were actually members of the Associated Farmers I don't know. I don't know Mr. Neylan's connection with the Associated Farmers.

SXB: Oh, Mr. Neylan was attorney for Safeway Corporation, and he persuaded Safeway to donate a large amount of money to the Associated Farmers, so this is his alleged connection with the Associated Farmers.

CBH: Oh, I see. I didn't know about that.

SXB: I think Neylan worked quite closely with some of the farmers of the state as an attorney.

CBH: Oh yes. He had something to do with this Miller-Lux controversy. And, of course, Safeway was a big chain store, merchandiser of agricultural products. He naturally had connections with the producers of the products which Safeway bought and distributed in their meat and grocery business. So maybe there are some things about this interlocking thing that I'm not informed on other than the fact that both Mr. McFadden and Mr. Teague were substantial farmers, able men, and by and large the Associated Farmers was made up of men of similar caliber, similar abilities, who recognized this subversive influence that was creeping into the farm labor situation.

SXB: I believe that some of the faculty members had criticized the Associated Farmers of California for using vigilante methods in dealing with strikers, labor leaders, and that the Associated Farmers objected to this criticism from such a respectable source.

CBH: Yes, I've known of members of the University faculty getting involved in labor disputes even more than I did. Some of them naturally favored the labor side of this controversy, as I was sometimes charged with favoring farmers. But with all of my conservatism, in my work with the Associated Farmers I used to try to influence them and guide them and to encourage them to improve wages and
living and working conditions as well as they possibly could. I know that in the early days the Associated Farmers did a lot by recognizing that the living and working conditions of migrant laborers were not what they should be, and they did this on a voluntary basis.

WKB: Hasn't it been pretty well substantiated that they used extra-legal methods of --

CEN: What, for example? I don't know.

WKB: Burning camps, transporting certain labor leaders across county lines by strong arm methods. I think the LaFollette committee investigated a lot of those things and turned up fairly substantial evidence that there had been considerable extra-legal methods used.

CEN: Maybe so. Undoubtedly there were excesses, and they still go on. I'm not trying to say there were no excesses practiced. They usually are in protracted strikes on both sides. But by and large the Associated Farmers, in my judgment, had a lot to do with bringing about public recognition, and in farming circles, that some farm labor camps were not satisfactory and had to be improved.

I well remember when Colonel Garrison, a retired army officer and a farmer over here in San Joaquin County some place, was president of the Associated Farmers. He introduced me one time to the group as a man who was interested in their work but who never failed to tell them when he thought they were doing something that they shouldn't do, and they expressed appreciation of that attitude.

WKB: In the Year of the Oath George Stewart puts forward several suggestions as to reasons why the regents may have persisted in insisting on the oath after the need for it was gone. As you say, the legislature decided not to pass any of this legislation, but the regents continued to insist.

CEN: We must remember, of course, that the oath divided the regents almost 50-50, depending upon, at any given meeting, how many people were there. I've been present when I could predict, when the first votes were cast -- the roll was called alphabetically --
when the first votes were cast I knew then what the total vote would be because they were so evenly divided.

WKB: You knew how each man was going to vote?

CBH: Almost. There were two groups of regents. The first votes would indicate whether that group had the majority that day, or whether that group was in the minority that day. That was the most severe price that the University paid on account of the oath controversy, this division of the regents.

WKB: The division of the regents from each other?

CBH: Yes, the two groups in the regents. It was so severe that no matter what the merits of a proposal were this first vote often determined the outcome that day of the voting. They voted by groups on some very important problems, and it took them two or three years to get over that. In the meantime the work of the University was delayed and many things suffered.

WKB: Did the same group always stick together on every issue?

CBH: Yes.

WKB: What was the division? Was it a personal or policy division?

CBH: Well, it was a division on policy starting from the oath. I suppose it was basically the position that they took on the oath.

WKB: Did it become a personal animosity between the regents?

CBH: Oh, I can't say it was personal animosity, but certainly there was a personal clinging together into these two camps. And as I say, it went so far that they couldn't resolve for some time some very important problems facing the University, problems that didn't have anything to do with the oath.

WKB: One group took one side and the other would have to take the other.

CBH: That's about right. It took two or three years to get over that.

WKB: Was this by any chance a north-south division?

CBH: The north-south factor was in the general picture too, though not in connection with the oath. I recognized, and I think everyone else did, that for a while the north-south controversy got very
warm. There's always been a little of that ever since I've been connected with the University. One thing led to another, let's say, and the culmination of it resulted in, as I say, tearing the board of regents asunder.

There's been some suggestion that perhaps this was an attempt on the part of some of the southern regents to discredit Sproul because Sproul had been a very strong force in holding the University together. Their goal was to get UCLA set up as a separate institution, separate from the University of California at Berkeley.

I know of no case that indicated to me that the southern regents wanted to separate UCLA from the University. I know of many cases where they wanted more autonomy, more authority, and more prestige, and that sort of thing, but never to separate from the University. I'm not saying that maybe in the minds of one or two people at times that thought didn't come. But I saw no evidence of it. They were always proud to be a part of the University.

One more question on the loyalty oath. Somewhere along in the negotiations in the academic senate it became apparent that there were some members of the faculty who were informing immediately and directly to some of the regents. What was the effect of this on the faculty?

That's a difficult question to answer. I think it was sufficiently known around the campus that that was happening. Some of us disapproved of it, but I don't know that we did anything about it particularly.

It didn't in any way demoralize the faculty?

I don't think so. It might have disturbed some people. I certainly didn't approve of it, for in those days it was generally understood that the faculty communicated with the regents only through the president.

As far as you know, the other members of the faculty were not particularly disturbed, or it didn't change the course of faculty meetings in any way?
I don't think so. I can't conceive of that. Now, it might have influenced some people one way or the other. But I still would maintain that if it were done it was a bad thing to do on the part of anyone. I don't care who it is. But by the same token I think it was bad policy on the part of any regent who would listen to it, or be a party to it on that side.

I cannot escape the feeling that there was an awful lot of emotion rather than good sound judgment in this thing. And there was a lot of emotion rather than good sound judgment that caused the regents to let it tear themselves asunder. You can't put the blame for this on any individual or group of individuals. It was a most unfortunate affair, and I'm glad it's all past.

Comments on Some of the Regents

WKB: Do you recall which regents were particularly interested in agriculture? I know Mr. Teague was.

CBB: Yes, Mr. Teague, Mr. A.J. McFadden, Mr. Giannini.

WKB: You mentioned Gus Olsen at one time as being appointed especially to keep his eye on Davis.

CBB: Yes, he's one of the new regents. He was appointed by Governor Warren just a little while before my retirement, and he's still active. Mr. John Watson is now president of the state board of agriculture and therefore a member ex officio of the regents. He replaced Mr. McFadden.

WKB: The committee on finance and business management seemed to have a good bit to do with the College of Agriculture also; Mr. Ehrman, Mr. Griffiths, Mr. Heller, and Mr. Dickson. Would you count any of those as being particularly interested in agriculture?

CBB: No, not especially. They were always helpful, of course, and always interested, but not directly, I would say, like Mr. Teague, Mr. Giannini, or Mr. McFadden.

WKB: The committee on agriculture -- McFadden, Teague, Fenston, Neylan, and Alport.
CBH: The regents make some changes in their committees every year, you see.

WK3: I'm not sure what year this is.

CBH: The regents have a committee on committees to assign people to the different committees.

Now, as I look back over a number of years the people that I think of -- of course, Mr. McFadden, an ex officio, was recognized generally as representing agriculture, because the organic act establishing the regents prescribes that. Mr. Teague was interested in agriculture because he spent his life in agriculture. Mr. Giannini always had a deep interest too. Mr. Alport was interested, but had no direct connection with agriculture that I know of. Mr. Fenston comes from a great agricultural area, Fresno. No one can live in Fresno without developing some interest in agriculture. He was a lawyer, I think, by profession. Mr. Olsen is a farmer himself, like Teague and McFadden.

By no stretch of the imagination could you say that Dickson had any connection with agriculture.

WK3: I wonder if you would put him down as someone who was less sympathetic to agriculture than to other segments of the University.

CBH: I wouldn't want to say "less sympathetic." I would say he was more interested in other things than he was in agriculture. I've never encountered, in my connection with the University, anyone on the regents who was not sympathetic to agriculture, but their direct interest, of course, varied a great deal.

WK3: What about Regent Neylan? Would you call him sympathetic to agriculture?

CBH: Yes. There was only one time, to my knowledge, that I ever made a proposal to the regents that Mr. Neylan voted against me, and that was a proposal not to do something. That was a proposal to refrain from destroying the airport at Davis. We had bought the Stralock Ranch, 375 to 400 acres, on which there was a Class C airport, so
good that it had won an award from some aeronautical organization, right there on the land. Naturally we bought that ranch for agricultural purposes, not for aeronautical purposes. Some of the regents, when we proposed a plan for managing it, raised the question of why it shouldn't be destroyed and the land used for the purposes for which it had been purchased.

I took the stand that aeronautics was coming into agriculture rapidly: we were already shipping commercially fresh fruits, and particularly fresh flowers, from the Pacific Coast to the New York markets; rice was being seeded by airplanes; orchards and fields and vineyards were being sprayed for the control of fungus diseases and insect pests from airplanes; agriculture was moving into the air age, and we had bought a piece of land on which there was a good airport. And I urged the regents to retain it and to enable us to gradually put it on a self-sustaining basis. I'm told that today it is. It maintains itself through fees and the sale of gasoline, and so forth.

Some of the regents didn't agree with me. The final vote was seven to four in my favor. If those four were still living (they might be) and they looked into the thing, I'm sure they'd say, "Well, the dean was right. We were wrong in opposing him then."

As a matter of fact, that was the only case I can remember where there was even a divided vote on a recommendation I had made to the president. It may have occurred some time when I wasn't present, but this is the only case I can recall when there was opposition to a recommendation I had made.

So Mr. Neylan was a good supporter. I've heard Mr. Neylan characterized as being the leader in the regents. Whichever way he voted it was likely to go that way.

He was a strong man and a good regent. The only criticism that I have ever heard of him among the faculty was in respect to the position he took on the oath. But he reluctantly was persuaded to vote for the oath. Then, when the University administration
changed its mind he was left, shall I say, out on a limb a bit, and he naturally resented that. I think that John Francis Neylan was one of the greatest regents in my time. As far as agriculture is concerned, I couldn't have asked for better support than I got from him. And yet I don't think anyone could have said that he was especially interested in agriculture. He was sympathetic. He recognized its importance. He believed in the College of Agriculture and he supported it.

Another thing which he did which many people in the University perhaps don't know -- he was a strong supporter for what he called the heart of the University. To his mind that was the College of Letters and Science. He was afraid, and I've heard him express it especially during the depression, during the war when money was scarce, that we were taking on too many things on the periphery of the University. Interesting or important though they be, he feared that the time might come when the maintenance of those peripheral activities might restrict or starve the development and maintenance of what he called the heart of the University. Operating on the periphery myself, I couldn't have anything but respect for that point of view. I had great respect for Mr. Neylan's philosophy of what a university is all about and what it should be.

Acquiring the Santa Barbara Campus

[Voice]

You were on a committee to consider whether Santa Barbara college should be made a part of the University of California.

[Speaker]

Yes, I was on the committee that the president appointed to advise him, and he in turn was preparing to recommend to the regents whether the Santa Barbara college should be taken into the University. The legislation, you remember, was permissive, not mandatory. We looked over the situation and our committee recommended to the president that he in turn recommend to the regents
that Santa Barbara be brought into the University system. But right then we began to struggle with the fact that there wasn't very strong University development there or very strong educational activities at the University level there. It was a state college type, you see. The reputation that that institution had, if any, had been made in home economics and industrial arts, both of which were, to some degree, and particularly in industrial arts, extraneous to the University's field of activity. Home economics wasn't, because we already had home economics in the University accepted as a University undertaking.

They first began to talk about a liberal arts college, but for a number of years they had two sets of entrance requirements; they called them A and B. And the A requirements were those of the University and the B requirements were about the same as the state colleges maintained.

And that was a degree course also?

It was a degree-giving course. But the curriculum was different from the curriculum for the group of A students. And they struggled along with two kinds of students on the same campus. And I don't think that was very satisfactory to the University, and certainly it wasn't satisfactory to the local people in Santa Barbara, so there was a little fuss about that. And it was my thinking, and I think our committee that advised the president in this matter had pretty well in mind, that that was to be a transition period, that we couldn't just suddenly close up the work on that campus, which I say was the basis of whatever reputation that institution had and it was well and favorably known for those two lines of work. So from the standpoint of public relations in the University you couldn't just close it up.

I'm told just recently that the B students have been, if not eliminated, no more are going to be accepted. And they are going to transform that into a true University campus with provision for 10,000 students. Wonderful! That is doing down there just
C3H: what I've been talking about at Davis — getting rid of non-University affairs.

W3: Sounds like it's very important to keep the alumni behind the institution.

C3H: Oh yes, and no University has been more fortunate than the University of California with the support that it gets from its alumni. I give Mr. Robert Sibley full credit for building what I think is the greatest alumni association of any American university. Bob did it in a charming way, an effective way. With leadership he stimulated not only throughout the state but throughout the nation and throughout the world a loyalty among the alumni to the University.

The Santa Barbara campus has great potentialities as a general University center. The community affords much cultural support. Its physical environment is unsurpassed.
PARTICIPATION IN ADVISORY, SCIENTIFIC, AND CIVIC GROUPS

Association of Land Grant Colleges and State Universities

WKB: I wanted to ask you about the Association of Land Grant Colleges and Universities.

CBH: Do you want to know something of my part in it?

WKB: Something of your part, something of the association's history and background, and also some comments on their policy decisions, what kind of policy they recommend.

CBH: I think the present name is the "American Association of Land Grant Colleges and State Universities."

WKB: It has changed its name several times, hasn't it?

CBH: Yes. As I recall, the first national organization in this whole field was one made up of the agricultural experiment stations -- at least they were the first to meet as an association. Now why that happened I would guess was because there was a very close relationship with the USDA. You see, the USDA was established at the same time, during the same year that the original Morrill Act was passed by Congress. Prior to that there was no cabinet post in agriculture in the federal government. There was a commissioner of agriculture in the Department of the Interior, I believe. So the fact that the USDA and the land grant colleges were -- the legislation occurred during the same year, there's always been a close relationship between the two. The Congress has generally, but not always, turned to the Department of Agriculture as the center of information and administration of the federal part of these land grant college acts.

The original Morrill Act and the second Morrill Act and the Nelson Act, all devoted to further endowment for teaching, are now administered by the Department of Health, Education, and Welfare. The Hatch Act and the series of agricultural experiment station acts for agricultural research, and the original Smith-
Lever Act, establishing the Agricultural Extension Service, and subsequent acts enlarging that, are now administered by the Department of Agriculture. Thus, over the years there has grown up close working relations between the colleges and the Department of Agriculture. We've been closer to the Department of Agriculture through research and extension than we have with the Department of Interior, the old Office of Education, and currently with the Department of Health, Education, and Welfare, because there wasn't much to administer. Congress said, "You spend this money for teaching," and the University has had no difficulty at all in budgeting it and reporting to Washington as to how it has been used. It is largely a bookkeeping and reporting procedure.

But in research programs and projects -- the Office of Experiment Stations was charged by Congress with the approval of all research projects. Certainly in extension work the federal director had to approve projects and programs. As I recall, the first forerunner of the current association was an organization of the experiment stations. The next step was to bring in the other functions of these colleges, the teaching. I recall that at one time it was called the Association of Land Grant Colleges and Experiment Stations.

When these names were changed did this usually include an increase in the membership of the association?

No.

The breadth of the association?

Well, the breadth of it. No, the association is an association of institutions, not of men or women. Since about half of the territories and states made their land grant college a part of their state university, the association originally and still consists of the independent land grant colleges and land grant universities, if I can make that distinction.

Over the years, then, the association has devoted its
CBH: attention primarily to agriculture and engineering and, ultimately, home economics; indeed, during much of my period of activity it dealt only with agriculture, engineering, and home economics.

WKB: Was this with the research aspects of these fields mainly?

CBH: No, teaching and extension as well. Functionally the association concerned itself with teaching, research, and extension teaching in all three fields.

Then I think it was after World War I that the association took a strong look at itself and reorganized its structure very radically. It brought in arts and sciences, veterinary medicine, graduate work, so that it became a broad association of public-supported colleges and universities. Now, in about half of the states originally the land grant college was set up separate from its university. In many of the states there was a good deal of controversy in the legislature, competition for appropriations between these two institutions, the university and the land grant college. Some of us who have spent their entire lives in agricultural education but entirely in a land grant university, like myself, were eager to see the land grant universities take more leadership in the association affairs because we felt that those were the places where the most important agricultural education and research work was going on.

But we always had this enmity within single states to deal with, and we struggled over a number of years. Finally we attacked the problem through enlarging and broadening the scope of the Association of Land Grant Colleges and Universities to cover everything, if you will. Not everything, but certainly letters and science — all of the disciplines that were basic not only to agriculture but to other things as well. The professional schools like law, medicine, etc., have no representation in the land grant college association. But today it includes many of the state universities. You see, there are some state universities
CBH: that have nothing to do with agriculture and mechanic arts: Iowa, Oregon, Washington, Michigan.

I hope my successors in this outfit will not stop their labors until we can have in what is now the American Association of Land Grant Colleges and State Universities all of the independent land grant colleges on the one hand, and the independent state universities on the other, plus the mixture of land grant college and university, like California. Then we would have one association of public-supported universities of America speaking for American public-supported education at the university level. I think it would be a great thing. So, in my period I've done everything I could to help promote that idea. For instance, at about the time we set up our new School of Veterinary Medicine I took the leadership in getting established in the association a division of veterinary medicine. In the veterinary field there were ten colleges, and they had a little national organization called the Association of Deans of Veterinary Schools. We had some stumbling blocks there for a while. One was that one of the leading veterinary schools was at the University of Pennsylvania, a partially public-supported university. So how to work that into this Land Grant College Association presented a little problem. But we worked it out.

WKB: How did you do it?

CBH: I think also the Canadian veterinary school at Guelph was in it. Well, we just invite these two veterinary schools, Pennsylvania and Guelph, to meet with and participate in the discussions and deliberations of the division. There may be some more formal arrangement now, but that is the way it started.

An association of, or rather representing, public-supported education at the university level, with everybody in it, would be very influential. And when it spoke to Congress they would listen. The association that we're talking about today has more power and prestige in Congress than any other single organization
of educational institutions by far. Naturally, because Congress helps support us. And if we're going farther in public support for education, look at all these contracts we have for research. Look at what an institution like the University of California has. It seems to me it's just logical to form a single national association of public-supported institutions of higher learning. I think it would be a good thing for American education.

WKB: Does the association have much lobbying power in the Congress?

CBH: Well, we would deny that we ever lobby.

WKB: Influence is the word.

CBH: We've maintained an information service. We have headquarters in Washington and a man there and his staff, not a large staff, but a staff. They actually occupy quarters in the building that houses the American Council on Education, too. They work very closely together.

Personally, I was the University of California's chief representative, chief delegate to this association for many years. I used to get a little disturbed because I couldn't get Mr. Sproul to attend very often. He was so busy. Finally one time when I think I was pressing him a little, saying to him that here, "my goodness, the president of the greatest state university in America ought to take a more active part in this affair," he said, "Well, sir, that's to be your job." So I took it over.

And we had a little difficulty at home because we were not only interested in agriculture, engineering, and home economics, but we had officers interested in all of those things on four different campuses of the University. Our delegation was rather large, relatively speaking. We were way out here on the Pacific Coast and it costs a lot of money to travel.

WKB: The association meets in Washington, D.C.?

CBH: Well, they normally meet east of the Mississippi River. Occasionally they come west. They met here in 1915, the only time, to the
CBH: best of my knowledge, they ever met on the Pacific Coast. That was because some of the delegates wanted to go to the the world's fair, two world's fairs, one in San Diego and one in San Francisco that same year. But you know, it's always been astounding to me how much farther it is from New York to San Francisco than it is from San Francisco to New York. We westerners have always had to do most of the travel, and of course before the airplane came that was quite a chore. Some of the people, particularly my good friend Monroe Deutsch, used to think that the College of Agriculture was spending more than its share of the University funds for travel. He was a little disturbed about that. Mr. Sproul was a good friend of both of us so he kept out of the scrap. So Monroe and I would scrap it out.

Now, after the reorganization of the association and the development of a division of letters and science and a graduate division, I got some people who never went to the association interested, and they could see at once the significance of this and the importance of the University being adequately represented, and recognizing that with our geographical distribution of the University here to have proper representation we had to send more people than most any other state university, it's gradually worked around to a point where the University is taking a more important part in the total leadership of the whole business.

WKB: You served on some of the committees.

CBH: Yes, I was on the executive committee for several years and was president of the association in 1944. Then when we reorganized they had divisions -- the division of agriculture, made up of resident instruction, research and instruction -- and I was the first representative of that division on the executive committee; that was after I was president, as I recall, and some of my friends teased me and said, "Now you're starting all over again and going through the chairs again."
WKB: I have you listed as chairman of the committee on experiment station organization and policy in 1936. This was in the experiment station section. Would you usually go to the experiment station section?

CBH: Yes, my first responsibility, I always felt, was in the experiment station section, because generally there was someone else to attend the resident instruction section. For a while that wasn't too strong and it didn't do too much so I didn't miss much there. Mr. Crocheron, you see, would always go.

WKB: He'd always represent Extension?

CBH: Yes, and he was an outstanding leader in that division, too. He went up through these offices in the extension division, like the committee on extension organization, and he was the presiding officer in the division for a while, as I was in the experiment station.

WKB: The association doesn't include the Negro agricultural colleges, does it?

CBH: I don't know whether it does today or not. It didn't in my time. There were some seventeen Negro land grant colleges. They came about because the respective legislatures in the South always divided the federal grants between the two institutions. In my time we would invite the presidents of those Negro land grant colleges to attend our meetings, and frequently some of them would. But you can understand that the land grant colleges for whites in the South were not favorably disposed toward integration. So out of deference, let's say, to our colleagues from the South, we people who took a part in the association's work, a rather prominent part, let's say, would every one in a while raise the question, but we didn't press it too vigorously.

WKB: The question of including the Negro colleges as members?

CBH: Yes.

WKB: Did you maintain any formal liaison, or was it just extending an invitation sometimes?
We did more than that. We encouraged them, and this encouragement came from some of the whites in the South we knew, and who were friends, who were friendly with the administrative officers of these Negro institutions. I don't know how it got started, but during my time they had an association and they would often meet in the same city at the same time our association was meeting. We would extend invitations to them to come over and sit in on our meetings. At first I don't think much of this went on, but gradually more and more of it was happening. It's just another segment and another illustration of the whole integration problem in education in America.

It sounds like you had some communications with them so at least you could work together on the common problems.

Surely. In those states where Negro land grant colleges existed there was always among the officers of both institutions good working relationships, but both recognized that the people of their state weren't too enthusiastic about it, so they tried to avoid disturbances by moving carefully.

And another thing we used to do -- this didn't happen in my case -- but very often the president of our association would go across town to meet and address their association. I don't know why that didn't happen in my case. Maybe they just didn't invite me or something. I don't know. I certainly was not opposed to it.

Did the problem of military training or ROTC ever come up within the association?

Oh yes, we had very close working relationships first with the army, and second with the navy, then the air force. We had a standing committee on military affairs, or something. And the land grant colleges worked very closely with the War Department prior to World War II. When World War II came we began to work similarly closely with the air force and the navy.

On what sort of problems?

Educational problems.
WKB: Division of time, facilities --

CBH: Time, you know, and maybe such questions as to whether it should be compulsory or voluntary. The question has been often discussed in the association matters.

WKB: Of course, that's a big question here at Cal right now. Do you recall what the association as a unit thought on that?

CBH: Well, I would say that the majority opinion in the association would be for compulsory ROTC because that's the fact in their respective institutions. The association would debate matters but it has never tried to dabble in any member's problems.

WKB: I see. If it were compulsory within the institution then the representatives from that institution would favor that policy.

CBH: Would be likely to. You would assume that they would likely be in favor of it, although theoretically you could find someone who --

WKB: Take the American Association of University Professors -- the professors in that organization do not necessarily represent the view of the institution.

CBH: That's an individual membership organization. It may not always represent the point of view of the university of which they are a member. But the Land Grant College Association does because its members are the institutions themselves. Now, you'll find individual opinions among them. I don't know whether this is true, but I would guess that the new division of letters and science of the Land Grant College Association would have among the delegates from the several member institutions more members of the Association of University Professors than any other division of the Land Grant College Association. I don't mean to imply that there are no agricultural college people in the Association of University Professors. There are a few, but by and large the membership of that association is made up of people in other disciplines in the university.

WKB: More in the liberal arts, aren't they?

CBH: Yes, the arts and sciences.
When you go to the association meetings you don't go as an instructed delegate from your institution, do you? You are appointed by your institution but you go as yourself, don't you?

I can't recall of ever being instructed by the president. But certainly if there were some problem that had arisen here in the University of California that he would have liked to have heard discussed or debated, or maybe an idea that the association should take some action on as an association, he wouldn't have hesitated, if he couldn't go himself, to ask me to make certain that the point of view of the University administration was expressed in that meeting.

One of the questions I think was discussed was an effort that was made from time to time to get Congress to establish engineering experiment stations.

Yes, that was debated for a long time, year after year. There again, some institutions established their own engineering experiment stations. Here in California my good friend Dean Derleth, who was for years dean of engineering here, didn't like the idea, didn't want to have an experiment station here, so the University never established one.

I should think the engineers would naturally want those facilities.

Well, they do have similar things now. I don't think I could very well rationalize Derleth's point of view. Of course, in many institutions the engineering people hoped to get funds for research in that way. And the executive committee of the association tried and introduced bills into the Congress from time to time over a period of years to get a similar Hatch Act passed by Congress to establish engineering experiment stations throughout the country. It always failed, never got through. Why? I don't know.

But there were some engineering representatives or departments that didn't want this, it seems.
CBH: Yes. If I had to rationalize Derleth's point of view I suppose it was that he thought he might not be as independent. The old bugaboo of if the federal government makes appropriations for education it will control education. I've never had any trouble myself, whatever.

WKB: Most of the people at the association meetings had had long experience with federal appropriations. There were not many of them who were afraid of federal control, were there?

CBH: No, not the presidents of these institutions, nor even the engineers who came to their meetings.

WKB: This question of federal control of education if the federal government appropriates any money for education is a common one that you hear debated often. What was your feeling on that?

CBH: I have never feared it so long as you can recognize that possibility in the legislation, the act itself, and provide for protection. We've never had any difficulty here in California with the state agriculture department, and certainly not with the education and welfare department. I had so much more state money than federal monies that we never had any trouble in matching funds or in attempted control.

Now, you take a little state like Nevada, they did have difficulty there because the state was not doing its share. Practically all of their support was federal money. Sometimes the institution couldn't do what it thought was best to do because of the restrictions on the use of the federal money. For example, take the Adams Act. It was specified in the act itself it should be used only for basic research, fundamental research. Well, when funds are limited and pressure heavy, what is basic or fundamental research may not be too clear. But even here good administrative procedure on the part of the Office of Experiment Stations in Washington, a little give and take between partners, can do much to smooth the way. So I don't fear federal aid to education. Of course, I would hasten to add that I believe in
the principle that elementary and secondary education ought to be controlled and ought to be supported, really, by local people.

WKB: It sounds like the entire nation would be fairest tax base, but then the problem is to retain local control. You feel that at least in your experience this would be possible?

CBH: Oh yes. In a nutshell, I do not fear federal domination of education if the Congress appropriates funds for education, if the money is allotted to the states to be used as the state determines, but within broad federal limits, of course.

WKB: Well, do you think this would be the general view of most of the people who have worked in land grant colleges?

CBH: I think so.

WKB: The association put out a post-war agricultural policy statement in 1944 when you were president.

CBH: Yes, I appointed that committee.

WKB: I read through that. I wondered if you thought it represented the views of the majority of members of the association, or just the committee's views?

CBH: Of course, it naturally represented the committee's views, but we had some pretty competent people on that committee. I would say that at the time it represented the views of most people in the field of agricultural education and research in America.

WKB: Some of them seem like quite controversial --

CBH: Surely, they are.

WKB: For instance, they recommended government policies to prevent depression and maintain purchasing power. That sounds like considerable control of the economy. It's been my impression that agricultural people often favor a less controlled economy than people in other segments of the economy.

CBH: That used to be true. I'm afraid that a lot of people in agriculture have changed their minds, else why would Congress still persist in proceeding on the basis that farmers are willing to be controlled?
One of the things the committee said was that farmers cannot expect the right to produce freely and at the same time expect government price supports. So apparently they were saying either you have no price supports and free production or you have to accept government production quotas.

CBH: Control, and that's what the majority of American farmers have apparently accepted. We all have our own ideas about these things. As I recall, the association didn't endorse the committee's report. It merely accepted it, and left each institution, each state, each member free to endorse, reject, or modify the committee's conclusions as it saw fit. But that was a good committee, a committee of competent people. I think their judgment was pretty good.

WKB: They suggested also the elimination of trade barriers. I'm sure that wouldn't be acceptable to a large segment of the American public, at least not the manufacturing segment, nor to many of the agricultural producers of specialty crops.

CBH: Yes, surely. We've always had tariff proponents in agriculture in California and elsewhere. By and large, American farmers have been for free trade and, by and large, labor has been for free trade. Labor may be changing its viewpoint now. I can't believe that it is good for American industry just to throw up trade barriers here and depend exclusively on the local market any more than it is good for farmers to have to depend exclusively on the local market.

But I'm beginning to get a little worried about industry's point of view because labor is the big factor of cost in everything. If you hold labor prices up too high above labor costs abroad, the only way in which you can equalize that is by being more efficient. Well, up until these comparatively recent times, in fact, American labor generally has been more efficient. But other countries are learning to be efficient too. Sometimes I wonder if America can continue to maintain its high standards of
CBH: living unless similar standards of living can be developed elsewhere. In the long run it seems to me we must either help other people raise their standard of living or they will tear down ours.

WKB: One of the recommendations in this post-war agricultural policy statement was that the government develop policies to maintain the family-size, family-owned farm, which I believe has been a long-established governmental policy.

CBH: Yes. That, I think, is the factor that the Congress thinks it is supporting by maintaining the present agricultural program of price supports.

WKB: To keep in production the family-size farm?

CBH: Yes.

WKB: Certainly it's the basis of reclamation policy.

CBH: I'm all for doing that, provided the family-size farm is efficient. There are some family-size farms that are very efficient. There are some that aren't. I don't believe it is good policy to maintain marginal farmers on marginal land at the expense of the rest of the people. And I don't want to see agriculture, I don't want to see industry or commerce, get into the hands of just a few large corporations. I think we can control that.

WKB: Improved conditions of agricultural labor was one of their recommendations. I believe you have mentioned that before, that you thought that should be done.

CBH: Yes. The difficulty, you see, in agricultural labor, is that certain crops, particularly those which we grow here in California, still require a good deal of hand labor, what's known as stoop labor. We've done a lot to solve that through mechanization and to get rid of that sort of thing, so I'm all for further mechanization and use of labor-saving devices and procedures in crop production.
Investigation of Farm Labor Conditions in Imperial Valley, 1934

WKB: Do you recall the circumstances of this 1934 investigation you took part in? I believe there were a number of strikes down in the Imperial Valley.

CBH: In those days much of the farming in the Imperial Valley was in the hands of corporations which depended, to a great extent, on migrant labor. As a matter of fact this is still true, although electricity and modern refrigeration have done much to improve living conditions in recent years. There was little there to keep the people year-round. Agricultural operations were seasonal. Seasonal or migrant farm workers lived under difficult conditions. They've always been a good medium for agitators to work among and with. That was certainly true in 1934 when this labor unrest broke. I have said and I still believe it is true that the group of farmers concerned with this farm labor problem here in California were the first group of people to recognize communistic infiltration and activity in this nation.

WKB: You feel there were communistic leaders?

CBH: Yes, together with some other people who I don't think were communists but from my point of view, at least, didn't use the best judgment. I give them credit for being sincere, though misguided.

When I got into it I worked pretty closely with a group of people who later organized themselves as the Associated Farmers of California. I don't maintain that they did everything they could, but they were at that time beginning to take steps in the right direction to improve the living conditions of farm workers on their own ranches so that when these migrant workers came in they at least had a roof over their head, and they had some of the simple things, running water, hot and cold water, sanitary facilities, and things to make their lives a little more comfortable instead of having to camp on the side of an irrigation ditch trying to cook over an open fire and things of that sort. Over
CBH: the years many ranches have made distinct progress in this direction, although much still remains to be done.

WKB: You were on a committee with W.C. Jacobsen, administrative assistant of the state department of agriculture, to look into the situation in 1934, were you not?

CBH: Yes, Jacobsen was a member of the staff of the department of agriculture then. Later Governor Knight made him director of agriculture and he's been that for the last several years.

WKB: And John Phillips.

CBH: John Phillips was then a member of the California senate and later on was congressman for twenty years.

WKB: I think you mentioned him before as being very interested in agricultural matters.

CBH: Yes, he was.

WKB: Was he a farmer?

CBH: No. But he was a Quaker. He came to California many years ago from Pennsylvania. I think he's a graduate of Haverford, a Quaker liberal arts college. I really don't know what his business was for I knew him only as a legislator and a member of Congress. He lived in Beaumont in Riverside County. I've been in his home. But while he was in the state legislature he must have had some business or profession or something to make a living. What it was I do not know.

WKB: Did you three members of the committee go down to the Imperial Valley?

CBH: Yes.

WKB: How long did you stay?

CBH: I suppose we were there about a week or ten days. There was a general from the army sent in, I suppose, by the federal government, which was making an official investigation of the situation. Ours -- well, I suppose from the standpoint of the state government it was official because the governor asked us to do these things. The state chamber of commerce, I think, brought the matter to the
attention of the governor. He picked the dean of the College of Agriculture, a representative of the state department of agriculture, and a member of the California senate.

WKB: And you conducted your investigation along with this general from the federal government?

CBH: Yes.

WKB: How did you get your information?

CBH: Oh, the general held public hearings and various people, farmers, workers, and some labor leaders, came in and testified, and we were invited to sit in on those meetings. We went out into the field, onto ranches, talked with laboring people, talked with owners, etc.

WKB: I believe the Simon Lubin commission had been operating a very short time before that and had investigated the same territory, and he came to the conclusion that there were no agitators but that the problem was due to the very bad conditions of --

CBH: I know. The American Civil Liberties Union got in on it too. And you can well imagine there were differences of opinion, differences of points of view, and perhaps different interpretations of the same facts.

WKB: That's why I wondered how you came out with different conclusions, if there'd been new evidence unearthed?

CBH: The general reported, of course, to the federal government, and we were reporting information to the governor, I guess. I'm sure that neither one agreed with the other's report.

WKB: Oh, you and the general didn't come out together?

CBH: No. I'm sure that the Simon Lubin Society and the American Civil Liberties Union were convinced that we were biased in favor of the farmers and the operators, and we were convinced that they were somewhat biased in favor of the laborers. Now, maybe there is some truth in both. We recognized, of course, that some of the larger operators were naturally trying to buy labor as cheaply as they could. It was an important factor in their cost
Of production. That's business. In turn the workers were trying to sell their labor at the greatest possible return. And they, undoubtedly, were not as well organized as the growers were. I don't think there's any question about that.

That brings up, of course, a question that was very pertinent in those days and which is still pertinent, for which they are still trying to find a solution. California farmers have always opposed unionization of farm labor. Those same people would not oppose unionization of factory labor or other industrial workers. If we could work out a plan by which farm laborers could be unionized and not have to use the strike to support their contentions, there would be no substantial objection on the part of farmers to labor unions. But when a labor union can call a strike at the time that peach crop has to be harvested, and if they were out just a week, the farmer would lose his total crop.

WKB: A strike is more crucial here than in manufacturing.

CBH: Yes, that is the basic reason why the strike method can't work in agriculture, in my judgment.

WKB: Do you think that's the reason or do you think they feel they can't afford to pay the higher wages?

CBH: California farmers are willing to pay good wages. They have always paid higher wages than farmers of any state in the Union, always, still do, maybe not enough. What is enough? No one's ever satisfied with his income. That's human nature. But relatively speaking California has always paid higher wages than any other farm area in the United States, and despite that and despite long distances of shipping, they've been able to pay higher wages, more freight rate, greater freight bill, let's say, to ship to the eastern markets, and still compete with farmers elsewhere. And that, I think, is due to our higher yields and the recognition and use of techniques of high quality in production.
CBH: And in general as the cost of labor goes up, as it has throughout the whole American economy, it's bound to raise the prices. But no longer do the advantages of high yield and efficient techniques in production have much influence on what the retail price is going to be. That depends more on the other fixed charges of harvesting, packing, shipping, processing, and marketing the crop, all of which involve labor costs. And production and harvesting costs are about the only costs in any degree controlled by the farmer.

WKB: Perhaps the share that the agricultural laborer gets has not risen equivalent with the share that the transportation workers, say, or the processor gets.

CBH: Yes, that's undoubtedly true, and the farmer has nothing to say about them. I myself used to have the idea that if we could get more of these migrant farm laborers to establish themselves on the periphery of some town where they might have an acre or two, they could produce the major portion of their table requirements. I used to visualize a few chickens for meat and eggs, and maybe a pig or two, and occasionally, if they accumulated enough, a dairy cow. There they would do their own work at odd hours and be available to work in the fields and vineyards that were nearby.

I made this suggestion one time several years ago to a labor leader who was trying to organize a union of farm field workers -- There have been many attempts at this, you know, over the years, and they have all failed. The only successful unions of farm workers I know of are among year-round workers such as milkers, tractor or truck drivers, and the like. I know of no successful union of migrant laborers. They are on the move much of the time, no home base -- He wouldn't consider it. "No," he said, "We are going to force farmers to pay high enough wages when our people work to enable them to live through the year." You see, techniques and procedures of industrial unions won't work in agriculture. We need a new approach, one that will provide effective collective bargaining for determining and setting wages, but one that recognizes that
CBH: the factory, the milk cow and the peach tree, can not be shut down by a strike.

WKB: Could the farm family itself handle all of its own labor requirements, using machinery, of course?

CBH: No. With these highly specialized fruit, vegetable, and nut crops that we grow in California no family can ever provide enough labor itself to run that kind of farm without some outside help. As long as we grow these crops we're always going to have to depend to some extent on outside labor. Now, it's not necessary that it has to be migrant labor. It could be labor from the towns nearby, and a lot of that is still available. Youngsters work in the summer.

WKB: Of course some of that is pretty skilled labor, isn't it, on the specialty crops?

CBH: Oh yes, there has to be some skilled labor, of course. There are two types of labor on the farm, you see, the highly skilled and the less skilled. For the less skilled we've always had to depend on people who live elsewhere than on the farm. Of course this migrant business is a terrible thing from a human standpoint. And in some crops we've made great progress through mechanization.

The best example of this that I know of is cotton. I never was interested, when cotton was first introduced in California, in seeing it become an important crop until it became evident to me that we could mechanize the production and harvesting of that crop. By so doing we can now produce cotton with very little human labor, direct human labor, through the use of machines. And it's become a very important crop in California. In fact I think we can grow cotton cheaper in California than it can be grown any other place in the United States, with the possible exception of the delta area of Mississippi. There they can use machines too, but in many cotton areas of the United States the individual farmer can't afford to invest the money into these big pieces of machinery. Here we can. We get good yields, and we grow just one kind of cotton in
CBH: California, and quite successfully. We'd grow more if the Congress would put agriculture back on an independent basis. California farmers could take their chances in competition because they know how to do it well, and with excellent yield and machinery they can produce it more cheaply than most people can.

WKB: They would squeeze out the more marginal farms elsewhere.

CBH: Yes, that's true. But why shouldn't they? I don't think we should be so much concerned as we are about keeping marginal farmers on marginal land. Why shouldn't there be competition in farming as in other business?

WKB: Was your objection to cotton that you didn't want this human element of all the cotton pickers?

CBH: All my knowledge went back to the South, the Deep South, with the one plow, one mule cotton farmer; always a lot of tragedy accompanied, single crop farming. If we had to depend upon labor as we used to in the South to plant the cotton then thin it by chopping it out in the row, then cultivate it with small implements, and then come along and pick it by hand -- that's the way the cotton industry in the South was run from colonial days up until, say, fifty years ago -- that doesn't appeal to me.

When I saw that it was going to be possible to practice precision planting -- you know, the cotton seed has a little fuzz on it and you can't plant it accurately with that fuzz on it mechanically.

WKB: Oh, is that right?

CBH: And they began to treat it with acid to remove the lint, and then with a planter, just like corn, you can plant accurately -- precision planting, they call it. That eliminates a lot of chopping, hoeing, thinning. Then cotton pickers were being developed at that time. First of all these machines were pretty crude and it took several years to perfect them. Now cotton pickers work very well. I suppose one machine does the work of forty people at hand picking. So we've eliminated a lot of the human tragedy that
CBH: accompanied that crop when it was grown and harvested entirely by hand.

WKB: I guess the criticism that I've read about cotton is that it depletes the soil.

CBH: No more so than corn or any other non-leguminous crop.

WKB: You don't think it will be detrimental to our California farm land?

CBH: You can always replace the plant food taken out by commercial fertilizers. That has been practiced for a long time in the South.

WKB: So you feel that we'll be able to avoid the sociological problem, and also it won't damage our soil, by using good agricultural methods?

CBH: I think so. I'm sure we'll avoid the sociological thing, yes, and the social distress of that one-crop farming, and particularly a crop that originally required so much human labor. No, I welcome cotton to California's agriculture. It has a permanent place here.

WKB: That takes us far afield from the Imperial Valley investigations.

CBH: Well, you see, a lot of these things we're talking about were involved in the Imperial Valley situation. They've been concerned with cotton too. In the early days cotton was one of the first crops grown down there. A lot of the human distresses that I speak of were encountered in the Imperial Valley as well as elsewhere. But at the same time it was one of the first places, and in the San Joaquin later on, where mechanization began to develop.

WKB: When you went through a problem like that did the College of Agriculture try to have any influence on crops, from a sociological point of view, or did they stick strictly to technical developments? For instance, you said you wouldn't have favored cotton under the old conditions before you saw that it could be mechanized. If they had brought in cotton under the old labor conditions would you --

CBH: The College of Agriculture couldn't have stopped it.

WKB: You couldn't have stopped it, but you could have had influence in
WKB: developing some other crop perhaps.
CBH: Surely.
WKB: Then you would have taken this sociological situation into consideration in the crops that you would encourage the farmers to plant?
CBH: Yes, we're all human beings. We all recognize these things. One thing you can say of the college is that it has never aspired to control the farmer or to be his attorney. We've never hesitated to tell farmers that we didn't believe in what they were doing if we thought it was wrong. They didn't have to pay any attention to our advice, but it was there, and we certainly wouldn't have encouraged the development of cotton in this state, and it might not, without our encouragement, have come along as rapidly as it did. We did very much encourage the winter flax crop, did everything we could to help demonstrate its possibilities and to help work out harvesting methods and handling procedures, etc.
WKB: Did the labor problem with truck crops have anything to do with your encouragement of flax?
CBH: Well, the labor situation in all crops has always been of interest to the college, and it's done everything that's seemed feasible or possible at the time to develop labor-saving devices and procedures. We've even worked at Davis on machines for harvesting fruit crops. We've helped develop a mechanism that you put on a tractor, and it goes up and gets hold of a tree and shakes the prunes off onto a canvas bag underneath. And we've developed other labor-saving devices. One of the most spectacular, I guess, was the electronic lemon-sorter, which not only grades by sizes but by the amount of yellow color in the lemon.

Another spectacular thing was when Professor Walker and his group developed a walnut cracker which removes the hulls. They ran the walnut through a little place where a device would saw a hole in it, move it over again and put some gas in it, and then it would go over a flame which would explode the gas and burst the hull there instead of crushing it because the mechanism used
in those days to crack walnuts not only crushed the walnut hull but it would crush some of the meat too. This gas explosion thing would come out with a large number of whole kernals.

Then a lot of work in the mechanization of the sugar beet industry has taken place. The sugar beet seed is a cluster of seeds. When the beet plant goes to seed and you harvest the seed from it it comes out in little clusters, three or four or five individual seeds. The first thing we did was to break those clusters apart into individual seeds, mechanically, and again do precision planting. Prior to this development growers planted this whole cluster seed and four or five plants would come up in the same place and they had to be thinned. It meant a lot of hand work there. Then when it came to harvesting the beet plant it used to be pulled by hand. The laborer would pull the plant by hand, take a knife and cut off the tops, and throw the beet in piles to be picked up and carried to the beet factory. We helped develop a harvester to lift the plants from the soil, run them over some sort of a mechanism that would chop off the leaves -- well, the leaves were cut off first, that's right, while they were in the ground, and then they would come along and lift them up. Much of the work of developing the beet harvester was done at Davis. Of course, the farm machinery people did a lot of work also, the International Harvester Company, the John Deere Plow Company, and other manufacturers. Often our people at Davis would cooperate with them.

And at one time the United States Beet Sugar Association, after looking over all of the farm machinery factories and all of the agricultural experiment stations, came to us at Davis and offered a grant of money to help our people there press forward more rapidly with their investigations in this field than they otherwise would have. And I think we had a program that expended $200,000 or $300,000 over a period of five or ten years, something like that. So our agricultural engineering department at Davis made a very important contribution to beet harvesting and seeding machinery.
CBH: Those contributions are now used throughout the United States in all the beet-growing regions.

WKB: It sounds like quite an advantage that agriculture has enjoyed that industry hasn't had --

CBH: Here's a reason for that. Farmers have had to rely on public institutions like the agricultural experiment stations. They can't afford to have laboratories of their own. Oh, some of the cooperatives pooling their interest have done some research, but by and large agriculture is dependent on the public institutions to provide the new knowledge that they find useful on their farms by putting it into practice. And I think everyone has justified that, by reason of the fact that it was a contribution by government to the most basic industry that we have and, in the minds of some of us, justified because it should be a function of government to make certain that people have a good food supply. In backward countries that isn't true, but in America it's always been true.

WKB: Getting back to the Imperial Valley investigation, your findings were greatly criticized as I recall. I read a number of Daily Cal editorials and so on. I wondered if that caused any difficulty administratively.

CBH: I don't think so. Oh yes, I was called a fascist. I was a fascist in the minds of some people, you see.

WKB: You were criticized by some members of the department of economics.

CBH: Oh yes, some of my good friends over there.

WKB: I wondered if this caused any trouble in academic relationships between the professors in agriculture and some in other parts of the University.

CBH: I don't think so. It's kind of like arguing over religion, isn't it, or politics? You can sometimes argue with your friends and not interfere too seriously with their friendship. I think it was that way.
State Soil Conservation Commission, 1939-1948

WKB: I wanted to ask you about the soil conservation commission. You were on that from 1939 to 1948.

CBH: Yes. We had been talking about soil conservation in agricultural education and research circles for a long time. Finally the USDA prevailed upon the Congress to enact legislation setting up the Soil Conservation Service in the USDA. The service, I think, was under Mr. Wallace's administration when he was secretary of agriculture under Mr. Franklin Roosevelt's first term.

The idea ultimately spread throughout the country. Mr. Wallace and his associates drafted a model state law to bring the several states into soil conservation and President Roosevelt sent it to the governors of all the states and requested them to see to it that their respective legislatures enacted it. Some of the states did. Some of the states didn't. We've always been rather independent here in California. Our legislature wrote and enacted a law which we thought was better than the one that Mr. Wallace and his group had written. That law set up the California State Soil Conservation Service. It provided that the directors of that service should be the dean of the College of Agriculture, the director of the Agricultural Experiment Station, and the state engineer. So the first directors were Mr. Edward Hyatt, who was the state engineer, Mr. B.H. Crocherson, and myself. The other two, outvoting me, made me chairman of the commission, and I served as such for nine years.

During that period we worked closely with the U.S. Soil Conservation Service. They had established state and district headquarters in the state and worked with the farmers. They got farmers to organize soil conservation districts and helped them draw plans for protecting the soil in the district. The districts would come to the commission and ask for approval of their plans.
CBH: We would look the thing over. Our responsibility under state law was to determine, to the best of our ability and our judgment, whether it was a feasible undertaking.

WKB: Did the farmers tax themselves for their improvements?

CBH: Yes, I think the state law provided a very minor tax.

WKB: Did some of the money come from the federal government?

CBH: Yes, the U.S. Soil Conservation Service had engineers and surveyors and a lot of other technicians who were available to this group of farmers to help them lay out their plans and direct the actual work of soil conservation, erosion control, watershed protection, drainage, anything designated to save and protect the soils of the district.

Now, there was some controversy. We didn't all see eye to eye, but to the best of my knowledge I can't remember our commission ever not approving, ultimately, a plan for the formation of a district. I remember one time we got into a good deal of trouble and controversy up in Sierra Valley, I think. It took us several months before we were able to resolve all of the problems that were before us.

As time went on and we learned from experience, at each session of the legislature some changes, amendments, would be proposed to modify and improve the law. The U.S. Soil Conservation Service was encouraging farmers to manage and control these districts themselves. That was the philosophy of the USDA.

WKB: The U.S. Soil Conservation Service wanted more independence of the farmers from your commission?

CBH: Yes, because two members of this commission were members of the College of Agriculture and the other was the state engineer. The secretary of agriculture in those days throughout the nation was -- from our point of view, the point of view of the agricultural colleges, and particularly the Agricultural Extension Service -- bypassing us and going directly to the farmers.
WKB: Did they want the farmers to be more independent or more dependent on the U.S. Soil Conservation Service instead of the state?

CBH: That's right, the latter. They wanted to control the situation with another farm organization attached to and dependent upon the USDA, and that caused all of the colleges of agriculture a little concern. We too thought farmers should play a greater role. So gradually the state legislation was modified first to put two farmers on the commission — as I recall, the old commission members selected and nominated to the governor for appointment two men — one chosen from the southern part of the state and one from the north, both of whom had shown interest in local soil conservation work and who were members of boards of local districts.

Still later, legislation was enacted to make the entire commission of farmers and get the ex officio people off. And I encouraged that myself. That happened toward the end of my nine-year period as chairman, and I thought by that time the College of Agriculture had made its most important contribution, that soil conservation work was so well recognized throughout the state that after we had helped build it up to a point where the farmers could take it over and do as good a job as we were doing, why not let them do it? Our time and energy could then be turned to something else. So this was done. The legislature at the same time attached the commission to the department of natural resources in the state government. About that time I retired, so I don't know what has happened since.

You see, I like to encourage people to do things for themselves. I was trying to get these farmers out from under the thumb of the federal government, and I don't think it would have been any more comfortable to be under the thumb of the state government, even the thumb of the University.

WKB: How much of your time did these commission meetings take?

CBH: Not much. We'd meet a half a day maybe once a month. We'd wait
CBH: until a certain number of applications had been perfected and filed with the commission's secretary.

By the way, there's one other thing I should add to this. Originally the commission didn't have any money, so I, as chairman of the soil conservation commission, borrowed of the College of Agriculture the services of Mr. Walter Weir, a soil scientist. He was a soils man and an engineer, the logical man from background, knowledge, and competency to serve in this capacity, so the College of Agriculture donated his services and office space because, as I say, the commission had no money. Ultimately, I think, we had a small appropriation from the state.

As I say, I finally got the college out. We ultimately rented a place on University Avenue for the commission's headquarters where they remained until transferred to Sacramento.

This is just another example of the College of Agriculture fostering, nurturing, and guiding a new and important idea or development of great value to the state until it was strong enough to stand on its own feet, and we could take on something else.

State Board of Agriculture, 1944-1952

WKB: And you were on the California State Board of Agriculture from 1944 to 1952. What were your duties with this board?

CBH: The California State Board of Agriculture is an agency of long standing. I don't know exactly when it was first established, but soon after the state was admitted to the Union, I believe, certainly before the University was chartered in 1868. It was first called the state agricultural society. I think I've discussed this before, the origin of the state agricultural society in several of the states. They existed long before the colleges of agriculture were established in the states.
When the University was chartered in 1868 and the board of regents was created as its governing body, agriculture and mining were the two principal industries of the state. To insure representatives of these two great industries on the board, or perhaps more accurately, to make sure that their interests and welfare would not be overlooked by the regents and the University, the president of the state agricultural society and the president of the Mechanics Institute were made ex officio regents, along with several elected officials of the state government. This arrangement prevails today, but somewhere along the line the state agricultural society's name has been changed to the state board of agriculture.

To the best of my knowledge the first University person to serve on the board of agriculture was Professor Paul S. Taylor, whom Governor Olson appointed. Taylor was and is professor of economics, but interested in agricultural matters, particularly agricultural labor matters. He was involved in this Imperial Valley deal too — regarded by the farmers as pro-labor, in much the same way I was regarded by labor leaders as pro-farmer, or pro-management. He has had grants from the Rockefeller and other foundations to study farm labor problems in California, Mexico, and elsewhere. He has made many important contributions in his field of scholarship.

When Mr. Warren took over as governor, and Professor Taylor's term had expired, he, whether individually or whether he was advised by farm people, thought that — at least he appointed me, asked me to serve in that capacity.

I read something about Taylor criticizing the relocation of the Japanese, and that this was one of the reasons why he was not re-appointed. Do you recall that?

No. That might have been, but I rather doubt it. I don't know what was in Mr. Warren's mind, of course, but if I were to guess
it would be that he thought the dean of the College of Agriculture, not as an individual but as the man who occupies that position in the University, is a more logical appointment. I suspect that was in the mind of Mr. Warren.

I would have to say this in all fairness and truthfulness: Professor Taylor has been in the farm labor picture for a long time, and some farmers in California don't agree always with his conclusions or with his studies, any more than some of them do with mine.

WKB: He's a strong supporter of the 160-acre limitation.

CBH: Yes, and that's a controversial subject in California. Even the farmers differ among themselves on that. The two great farm organizations in the state differ. The California State Grange supports the 160-acre limitation. The California Farm Bureau Federation doesn't. It's a difference in philosophy, let's say, of life, political philosophy, and what have you.

WKB: Were you a less controversial figure than Dr. Taylor?

CBH: I can't answer that. By the Daily Cal, the American Civil Liberties Union, and some other agencies, I was often charged in those days with being a fascist. Certainly I was controversial from their point of view. Now, among substantial California farmers and their counterparts in commerce and industry I don't think I was a controversial figure at all, conservative to be sure, but not reactionary -- I hope. But those two groups of people were in controversy very often. They still are, for that matter.

WKB: What were your duties on the board?

CBH: Broadly speaking and briefly speaking, the board of agriculture is charged by law to interest itself in agricultural matters in the state, and to serve as an advisory agency to the director of agriculture and to the governor. The director of agriculture is a member of the governor's cabinet. He is also director of the state department of agriculture. The department's primary job, as I have said before, is regulatory and control. It enforces
the laws enacted by the legislature pertaining to agricultural matters, such as the quarantine law, the fertilizer, insecticide, and various inspection laws, the marketing agreement acts, and many others.

WKB: The jobs that the University didn't want to take up.

CBH: Well, let's say those things of a regulatory and control nature vital to orderly procedures and which belong in government rather than education.

So you can say the board of agriculture's primary function is to watch and consider important agricultural matters in the state, to take the leadership in promoting legislation whenever that is necessary to meet a problem, and to bring to the attention of the governor and the director of agriculture any problems they see arising and to advise them in respect to the action, if any, the board believes the state government should take for the welfare of agriculture. It meets regularly, about monthly.

It was always a pleasant association for me because the governors during my period always picked men of capacity, integrity, and ability for appointments to that board. Politics didn't enter into our considerations and very little into our discussions. Everyone was trying to do what he could to advance the interests and welfare of California agriculture and through it the welfare of the state. So I was happy to have had a part in it. I served two terms. My second term was just up when I retired from the University.

WKB: Then your work was mainly advisory. You would consider a problem and then make a recommendation.

CBH: Yes. The various governors used the board for different purposes in the field of agriculture, depending upon the current situation. We were talking a while ago about the farm labor situation and the handling of Mexicans and other migrant laborers. I well remember that during my period of service the director of the state department of employment would come over and meet with the board. He
CBH: would bring with him his staff, the man who was in charge of farm labor placements. We'd talk about agriculture's need of labor this year or at some particular time, and we'd try to get estimates of how much labor was going to be needed to harvest California's crops that particular year and where was the labor coming from, and in discussing it to advise the director of agriculture as to how we thought the department of agriculture might best cooperate, never in a dictatorial way, you understand, but always forthright and in an attempt to be helpful. The group -- I guess all, besides myself -- were actually farm operators or cooperative marketing officials, all playing really important roles in the agriculture of the state. So it was a good forum on which to test any ideas the director of agriculture had, and it was also good for me as dean of the college, for frequently I saw an opportunity for the college to do something more, or ways in which the college and the department could strengthen their working relations.

WKB: If you made a recommendation, say to the director of employment or the director of agriculture, was this recommendation usually accepted?

CBH: Yes. We'd also advise the governor, if we thought there was something he ought to do. He in turn would sometimes ask the board's opinion on some matter with which he had to deal. It had no authority, you understand, no power.

WKB: Some advisory boards like that are very influential and others are not influential at all, depending on what is done with their recommendations.

CBH: Wouldn't you say rather: depending on the soundness of their recommendations. Of course, at that level in the state government people are, I suppose, sometimes influenced by political matters. Maybe sometimes sound advice is not followed because of difference in political philosophy or the immediate, even long-term, political situation.
I think I can say this. Political maneuvers, political considerations, have never been prominent in agriculture circles in California because all of the governors have recognized that agriculture is very important, as far back as I can remember. It was just as important to one party as it was to another. Maybe this is changing now that the state is becoming industrialized and urbanized and the number of farmers decreases. The department of agriculture in California has been, I'm convinced, relatively free of political pressures. In certain states, particularly in the South, if a man aspires to be governor and ultimately a senator and maybe the President of the United States, he frequently starts his political career, if he can, by becoming a director of agriculture. That's recognized in many areas as a good political step. That's never been true here in California.

In all the time I've been in California the only time I've known politics to have stepped in was when Governor Rolph became governor. He'd been mayor of the city of San Francisco for something like twenty years. The county of San Francisco had an agricultural commissioner. Now, there isn't much agriculture in the county of San Francisco, but the position was maintained, I presume, for certain regulatory purposes, and it was always kept filled. The commissioner lived in city hall. Governor Rolph made that man director of agriculture. It took the board of agriculture, made up, as I insist, because he couldn't change them -- some of them were appointed by his predecessor -- it took the board of agriculture eighteen months to convince the governor that California would be better served by another man in that spot. That is the only time that I have known in all of my years where politics got into the agricultural picture in a substantial and disturbing way.
Agricultural Board of the National Research Council, 1944-1948

WKB: I have you also listed as a member of the agricultural board of the National Research Council, from 1944 to 1948.

GBH: The National Research Council never seriously interested itself in agriculture until the war came on. They had a division of biology and agriculture in the council. They had in charge of that division a botanist, Dr. Briggs, professor of botany in George Washington University, who became very much interested in agriculture. He thought a committee or a board made up of people interested in agriculture and the biological sciences basic to agriculture, like nutrition and plant pathology, entomology, physiology, and others would be useful. He set up such a board and I was invited to serve as a member of it. President W.C. Coffey of the University of Minnesota was on the board, chairman for a while, I believe. It started out first to deal with the physical and biological phases of agriculture. Then some of us who were so concerned in those days about the economic problems in agriculture felt that we should add some people in agricultural economics to it, so we added two or three prominent agricultural economists of the country.

Whether that board still exists I don't know. It went through a process of evolution, I know. It was, I suppose one might say, on the national scale something comparable to the state boards of agriculture in the respective states, although it dealt more with research than with regulatory matters.

There's one point I'd like to make. Nationally, the USDA was, of course, looked to as the spokesman and as the leader and pretty near the whole show so far as national agricultural policy was concerned. Some of us felt that it would be very desirable to have at the national level a forum for the consideration and discussion of agricultural problems that was not a part of the federal government. The National Research Council has connections
CBH: with the government, of course, but it's fairly independent of government departments. That's what we were seeking when we organized this board of agriculture in the council.

WKB: Does it have any official advisory position?

CBH: Yes. The whole National Research Council was set up in Woodrow Wilson's time to advise the government on scientific matters. Of course during and since the last war it has greatly enlarged its activities.

WKB: Did your board often disagree with the Department of Agriculture's policies?

CBH: No. I can't recall any controversies. Congress is the policy-forming body there in the federal government and it directs the Department of Agriculture to do things. I've often heard people in the Department of Agriculture say, "We're merely carrying out the mandate of the Congress." Yet I know perfectly well, and everybody else knows, that the USDA is consulted by Congress in the formation of agricultural legislation.

I used to say, "But who really wrote the mandate?" Some of us who were interested in agriculture, including Dr. Briggs, were seeking a national agency that was independent of the government, independent of Congress, but which could ultimately gain prestige and be looked to by the Congress, by the USDA, by the President of the United States, and certainly by the people of the country as a competent agency for considering broad, important, basic agricultural policies.

Trip to China on the Point Four Program, 1946

WKB: We're now ready to talk about the China-U.S. joint agricultural commission to China. I thought you might give us a little of the story of what you were doing over there and what you thought of conditions in China at that time. That was 1946.
CB: Yes, that was right after the war. It was one of the first foreign activities in what has become commonly known as the Point Four program. The idea was developed by some people in the USDA and the Department of State. The two departments cooperated in this enterprise, the Department of State, I suppose, from a political point of view and a diplomatic point of view and, I know, from a financial point of view, because they had the funds. And the Department of Agriculture was asked to organize the mission and direct its work.

Dr. Ross Moore, then in the USDA, was the guiding spirit in this undertaking. He was a graduate of a college of agriculture in one of the Dakotas and had been on the staff of the United Fruit Company in Central America, a position he had held for a number of years. He gave up that post many years ago to come to California for graduate work. He got his doctorate here in soils and was on our staff of the department of soil technology, stationed at Davis for a few years after he finished his doctorate. That was in the mid-thirties, when the University didn't have much money and salaries were low. He had been employed by the United Fruit Company for a number of years at a reasonably good salary. He had a growing family and he left us because, as I say, under the circumstances then prevailing we were unable to keep him. So he went to the USDA, and because of his foreign knowledge and experience was assigned to duties in this area in the Department of Agriculture.

He, together with some people in the Department of State, conceived of this idea of foreign technical aid, which they interested President Truman in and which Mr. Truman mentioned in his inaugural address as the fourth item in a list of things which he announced the government was ready to do in foreign relations.

So ten of us from the United States were selected to go to China and work with ten Chinese, our counterparts over there, all of whom had studied in the United States and were engaged in
C.B.H.: agricultural work of various sorts for the nationalist government of China. We went over in June of 1946 and stayed until roughly Thanksgiving making a survey of the agricultural services in China, including research, education, and extension; in the production, improvement and marketing of agricultural products; in disease and insect control; and in farm credit.*

The Chinese had already made some substantial developments in all of these fields. Perhaps one of the most significant of these was the beginning of plant breeding work under a project financed by the Rockefeller Foundation and conducted by Cornell University and the University of Nanking in China. That was one of the missionary universities in China. It had long interested itself in agricultural work, in agriculture research and education, and had a good college of agriculture in which a substantial number of Chinese agricultural teachers and officials had been educated. Many of those had come to the United States for graduate work. Several of them were students of genetics at Cornell when I was there. In a period of several years after this project got started more Chinese came to Cornell. As a result, there was a good number of young Chinese then in China who were interested in and working in the field of plant breeding to develop new and better varieties of rice, wheat, and others of their important crops. Some of those men were on our mission, our counterparts. They had risen to relatively high positions in the Chinese government.

We worked together attempting to appraise what the Chinese government was already doing, and making suggestions for improvements in their agricultural services, particularly in production through plant breeding and through plant pathology and entomology,

*Excerpted from a statement by President Truman on United States Policy Toward China, December 18, 1946. [...] "...As ways and means are presented for constructive aid to China, we will give them careful and sympathetic consideration. An example of such aid is
the control or protection of their plants from ravages of insect pests and fungus diseases. Then we had an economist or two on the mission. We got into a study of their methods of marketing, storage, shipments, all of which were rather crude. There were no grain elevators in China. They handled all their grain in bags by hand. In harvest time these bags would often be piled up by the side of a railroad station some place, waiting shipment. Animals would attack them. They were out in the rain, and there were very great losses. In general they had very crude methods of handling their agricultural produce. In the short time we were there we attempted to look into all of these things and tried to make some suggestions as to how matters could be improved.

At first, as I recall, we spent about six weeks at Shanghai talking with people there at that port of entry, both government officials and businessmen. Then we moved up to Nanking, the capital, and spent another four or five weeks there. Then we decided to see something of China, so the government provided transportation for us of various sorts. We went first to Peking, where we made our headquarters for another five or six weeks, working out of there, visiting institutions and so forth. The Japanese, in their occupation, had built an agricultural research center just out of Peking. That was where their work centered in north China, with research developments in various fields of agriculture endeavor, veterinary medicine, plant breeding, animal production, animal breeding, various sorts of things going on.

WXB: Were these good research facilities?

CBH: They were not, from our point of view, but from what China had done in the past, yes, it was a rather substantial development.

The Japanese did a lot for China while they occupied Manchuria and the northern part of China. Unfortunately, they just could not wait for normal evolution. They occupied it by force and that caused a lot of difficulty, of course. I've often thought that

the recent agricultural mission to China under Dean Hutchison of the University of California sent at the request of the Chinese Government. A joint Chinese-American Agricultural Collaboration Commission was formed which included the Hutchison mission. It spent over four months studying rural problems. Its recommendations are now available to the Chinese Government, and so also
if the Japanese and the Chinese could have learned to work together they could have become, under peaceful methods, the dominating factor in the whole Orient. True, the 500,000,000 Chinese would probably ultimately have absorbed the eighty-odd million Japanese, as China has always absorbed any people that tried to take her over during the past centuries. But I think the introduction of Japanese industry with the resourcefulness and the industriousness of their people would have supplemented some of the Chinese' very desirable human traits, and a strong nation could have been built. It might have taken a few centuries, but China has already been there for fifty centuries or more developing.

Then we went over to Sian. That's supposed to be the birthplace of the Chinese civilization in Szechwan province; and then down to Chungtu and over to Chungking. From there down to Canton and back to Shanghai and over to Formosa, or Taiwan as the Chinese call it. We spent a week or ten days on Taiwan. Then back to Hangchow. Then back to Nanking, where we settled down to prepare our report.

To me the interesting thing about it all was that the report we made was afterwards used as the basis for the inauguration of a joint Chinese-American rural rehabilitation program, which was just getting well started on the mainland when the communists took over there and the nationalist government had to flee to Taiwan. This joint commission has been working every since on the island of Taiwan and has made many important contributions to the improvement of agriculture on the island.

WKB: Do you have any word as to whether the communists took over the program too?

CBH: No, to the best of my knowledge they didn't. They have had their...
own program and have been going at it in quite a different way from what we were inclined to think was the way to do it. The Chinese communists have undoubtedly increased agricultural production on the mainland. I doubt if it has been as much as they claim. As a matter of fact, just last year they confessed their own figures of improvement were wrong, and there have been rumors of food shortages; whatever the communists have done, they've done it with great hardship and with the sacrifice of human values, through force, even to the extent of developing communes.

WKB: Well, their changes have included a lot of social changes. Did your plan include any social changes?

CBH: Yes, we suggested certain things, certain social improvements, in our report. However, agriculture was our mission since agriculture was the basic industry of China. We made certain suggestions, possibilities for industrial development. We didn't conceive of the communes or didn't conceive of the rather harsh methods that the communists are using, certainly. We were even bold enough to call the Chinese government's attention to the even then rapidly growing population and to suggest the government might find it advisable to try to decrease the rate of population growth. We found differences of opinion on this question however, but we did make this suggestion.

We also talked about village industries, home industries as a start. There was some industry even in those days in China. It was clearly evident that it was possible to move forward in this direction. But we preferred, and I still do, to see these things evolve rather than be brought about by revolution. I must confess that that's not the way the communists proceed, and even many of her people, these days, say evolution is too slow.

From a political point of view -- you remember, that was the year that General Marshall was there; I had two or three visits with him. I think subsequent events have shown what seemed to
some of us, at least, was quite evident then, even though we did not pose as experts in the political field, that General Marshall had almost, if not quite, an impossible assignment. He himself recognized that later, as did a lot of other people.

I knew there was some corruption in the nationalist government. We have some corruption in ours, too. But we don't condemn the whole government, all of us, except when our side can corral enough votes "to throw the rascals out!"

Anyway, we ought to have had sense enough, it seems to me, to have seen to it that our funds and our military equipment were distributed under better control than happened. So I think we've got a little blame to assume in that respect. Certainly the outcome was very disastrous to this nation as well as to the world. I'm not the only one who now believes that we made some mistakes and that if we had been a little more astute and careful in it we could have saved China.

But getting back to the mission -- there was little opportunity afforded to the nationalist Chinese government to begin to implement on the mainland some of the things that we had proposed. But they have implemented them with rather marked success on Taiwan.

It was all an interesting experience for me. I had never been in China before. We returned to Nanking after about 8,000 miles travel by train, by airplane, by sampan, by burros, wheelbarrows, camels, donkeys, various means of transportation. When I got back to Nanking I was talking with two ministers in the government. Each independently said to me, "You've seen more of China than I have."

WKB: How did you like China, just as a personal experience?

CBH: I'm very fond of the Chinese as a people. Some of the finest men that I have known any place in the world are among the Chinese. Educated people, of course. Most of the ones I came in contact with had studied in the United States and are graduates of our colleges and universities. Men like Dr. Y.T. Tsur, who was
CBH: minister of agriculture at the time I was there. He was a graduate of Yale. I suppose he had also gone to a missionary school in China. Dr. Hu Shih, former ambassador to the United States, a graduate of Cornell, China's leading contemporary philosopher, is another example. By the way, Dr. Hu once told me that Mao Tse-tung and Chou En Lai were both students of his at one time. This, I am sure, was before these gentlemen decided to complete their formal education in Moscow.

You see, many of the people were graduates of American missionary schools in China and American universities who were, over the years, prominent in the government of China. Many of them who came over were financed by the Boxer indemnity funds and missionary funds and are very friendly to the United States and to Americans, high-class people.

WKB: Was Mrs. Hutchison able to go on this trip with you?

CBH: No. Our lad was only eight and he had just had an accident. An automobile struck him. Both of his legs were broken and were in casts up until just the time I left. So she had him to take care of. Anyway, I was traveling and it was not feasible for her to go.

China Foundation for the Promotion of Education and Culture

CBH: You've got a question about the China foundation?

WKB: Yes, I do. Why don't we continue with that. The China Foundation for the Promotion of Education and Culture, why don't you explain that?

CBH: All right. The foundation is a quasi-official body of Chinese and Americans. The idea was conceived and developed by Alfred Sze when he was the Chinese ambassador to the United States during the Coolidge administration, and Elihu Root was our secretary of state. They worked out a plan to set up a self-perpetuating board of trustees consisting of five Americans and ten Chinese,
with power to elect their successors, and under certain terms of
control by the Chinese government to administer the second remis-
sion of the Boxer indemnity funds. The first remission was handled
by the Chinese government itself with, I suppose, some measure of
control, although not markedly, by the United States government.
These funds were derived in the form of a fine imposed by the
United States and some other governments who moved in troops to
quell the Boxer rebellion. The United States, after paying its
cost of occupation, remitted its share of the balance to the
Chinese government to be used for education. A portion of that
money was used to build and endow a university in central China.
The name was Tsing Hua University. Its grounds and buildings
have now been taken over by the communists, but a portion of its
faculty now operates it on Taiwan, largely as a scientific insti-
tute. The rest of the funds were used to finance young Chinese
students' travels and studies in the United States.

The two governments decided in 1924 that it would be better
to have an independent board of laymen handling these funds.
So this organization known as the China Foundation for the Promo-
tion of Education and Culture was established. The Chinese gov-
ernment continued to pay either directly to the board, or to the
United States government for remission to the board, I'm not sure,
the annual payments or fine due the United States under the remis-
sion plan. Anyway, the funds came into the hands of the board,
with full authority under certain general broad regulations to
invest, administer, and expend the income from those funds.

The first Americans on the board were men who were then living
in China. Some were educators. Some were bankers. Some were
businessmen. But they were men who had lived in China for some
time and who knew the Chinese and who had worked with them. Now,
when I was there with the mission in 1946 Dr. Y.T. Tsur one day
asked me if I would be willing to become a trustee. He explained
that the board always met in China for its annual meeting, but
that they had an executive committee which carried most of the responsibility. I figured that at most it would take about two weeks of my time each year, so I said "Yes." I was appointed early in 1947 and I went back to China in December of 1947 for the board's annual meeting. By the next year, 1948, the communist situation was so acute that we didn't have a meeting. By the next year it was evident that the board could no longer meet on the mainland of China, and since by that time all of the American members and several of the Chinese were living in this country, it was decided to meet in the Chinese embassy in Washington. The board has been meeting there ever since.

WKB: Do the other Chinese members come here, or are they in Washington?

CBH: The present chairman of the board is Dr. Chong Mon Lin. He lives in Taipei where in fact he is also chairman of the joint rural reconstruction commission. He's a graduate, by the way, of the University of California, and was one of these early Chinese Boxer indemnity fellows. He was minister of education when I was in China in 1946. He has been prominent in the nationalist government circles all of his life. He comes from Taipei occasionally for the board's annual meeting.

Dr. T.F. Tsaing, the nationalist permanent delegate to the United Nations is a Chinese member of the board. He's the Henry Cabot Lodge of China in the United Nations, one of the big five constituting the security council -- England, France, Russia, United States, and China -- he lives in New York and is currently, and has been for some years, vice-chairman with me. We have a co-vice-chairman deal, a Chinese and an American. Dr. Hu Shih is the current director of the board. He divides his time between New York and Taipei.

The Chinese government has always been represented at the board meetings by the Chinese ambassador. Sometimes the Chinese ambassador has been a member of the board, sometimes not. I think Ambassador Wellington Koo was. He was ambassador when we first
moved the headquarters from China to the United States. Then Ambassador Tong succeeded him. Now George Yeh is the ambassador. All of those men are graduates of American universities, too. So a lot of important Chinese people, most of them educated in the United States, have been trustees of the foundation right from its beginning. The roster includes many illustrious Chinese names, both in China and in America.

What funds do the board have available for this educational work now?

The Chinese government continued to make its annual remittances up until a few years after the Japanese invasion. Even while they were fighting the Japanese, they were still paying into this fund the remnants of the Boxer indemnity remission. Then the financial situation became so acute that the Chinese government was simply unable to continue. They were in arrears during the last two or three years of the war. Immediately after the war we negotiated a treaty with China abrogating the extra-territorial rights that we, along with other nations, had maintained in China for some time. That, of course, stopped any further payment of Boxer indemnities.

But I'd like to record in this statement that the Chinese government faithfully made all the payments required under the Boxer indemnity agreement to the foundation with the exception of the last two or three years of the war. Some of the money was invested in Chinese securities and that, of course, was largely lost. Fortunately, most of it was in dollars and pounds sterling securities. These were gotten out of China before the communists took over and are now in the hands of the trustees in New York banks.

The foundation has an endowment of its own. The trustees also administer the Tsing Hua University endowment, together with that of two other minor endowments. They have been quite successful in their investments since the war and roughly, well I guess, now have something like $10,000,000 in their hands as trustees, of
which only about $200,000 is the foundation's own. Now the income
which the foundation uses in its own activities has financed a
few traveling professorships for Chinese professors now living in
Taiwan to come to the United States or go to Europe or some other
place for a year or two of special study, or research, or other
refreshing and stimulating experience. Then we have sent, parti-
cularly from the United States, prominent Chinese connected with
American universities to China for a few months to lecture.

WKB: This is nationalist China.

CBH: Yes, when I say "China" I'm talking about nationalist China, about
Taiwan.

Dr. C.H. Li of the University of California was over there on
one of our professorships two or three years ago. We've also
made grants for research purposes to professors in the University
of Taiwan, and to an engineering college, an agricultural college,
and, I think, a normal school. We have also from time to time
made modest grants to some scientific and cultural societies and
other cultural agencies in China. But our income is so small
that the whole program is of modest proportion.

WKB: You just live off the interest. You don't use the endowment.

CBH: Yes.

I have enjoyed these contacts very much because I'm very fond
of some of these Chinese who I have now known for a number of
years. They are grand people and still good friends of America.
They still don't believe that their countrymen on the mainland
believe in communism, although they have to admit that the com-
munists have been in control long enough now, that many of the
elders have been liquidated or died, and that the youngsters
coming along don't know anything else. The situation is something
like it is in Russia in that respect.

Really, Mrs. Baum, I shouldn't even be talking about political
matters. I'm not well enough informed.
Advisory Council, California Region, United States Forest Service, 1948

WKB: You were on the advisory council for the California region of the United States Forest Service in 1948.

CBH: Yes. Perry A. Thompson, who was then regional forester, invited me to become a member of a sort of advisory board, a council which he set up to help the forest service in promoting good public relations and promoting their whole program from a public point of view.

WKB: This was a public relations rather than a technological advisory council.

CBH: Yes, that was definitely true because they had their own technicians and our people in the School of Forestry worked closely with them. But they wanted to promote a better public understanding of the value of our national forests, and a better understanding of the way in which the forest service was handling and managing the great natural resources of the national forests, how they control, conserve, and develop our forests on a self-sustaining yield basis so that these forests, as well as those in private ownership, continue as the basis of a permanent lumber, wood, and paper pulp industry.

WKB: What kind of things did you do on this advisory board?

CBH: Well, they'd bring certain problems to us for our advice — on water conservation, watersheds, self-sustained yield basis, their management practices, their relationships to lumbering concerns, their contracts in logging, and various things.

WKB: These were quite a few economic matters.

CBH: Oh, yes. I would say it was more broad, generally economic and public relations problems than wood technology or how to grow trees.

WKB: How long did you remain on that board?

CBH: I was one of the original members of the board and served right up until I retired.
Do you remember who else was on it?

Carl Wente, at one time president of the Bank of America, was one. Bester Robinson was there. There was a prominent man from Southern California on it. I know there was a prominent lumber man in the north on it. The membership consisted primarily of conservationists, financiers, and others interested in forestry both directly and indirectly.

So they tried to get a coverage of some of the prominent people in different aspects of forestry.

Yes.

Scientific Societies

Would you care to comment on some of the societies to which you have belonged? I have some of them listed, such as fellow in the American Association for the Advancement of Science.

I have been a fellow in the AAAS for a long time. It doesn't mean much. I've been a member of that since my graduate days. I was elected a fellow in 1913, as I recall. Most anyone who has engaged in active work in science was made a fellow.

I've also been a member of some other scientific organizations.

I have American Society of Agronomy, the Botanical Society of America, the American Genetics Association. Would you comment on what you believe are the most significant for you, the groups that are really active and not just nominal.

The American Society of Agronomy was and is still very active.

Are you still active in it?

No.

Were you active in it?

Yes, many years ago, not much in recent years. I was more active in the genetics field, the Genetics Society of America. That was the leading, and still is, the principal scientific society in
the field of genetics. The American Genetics Association was a
quasi-public organization — anybody that was interested in geneti-
cs was a member of that. The Genetics Society of America was
pretty largely restricted to actual scientists.

WKB: Did you keep on with these organizations after you became more of
an administrator than a geneticist?

CBH: I kept up my membership in all of them but I didn't participate
much in their activities after I got into the administrative game.

WKB: I wouldn't think you'd have time because you had all those admin-
istrative organizations.

CBH: That's right. Now we're getting into an area where, if I have any
regrets in life, they are to be found, because I still believe
that the most attractive position in any university is a profes-
sorship.

WKB: Because the professor keeps up his research and scholarly activi-
ties?

CBH: That's right, and he is in a position to stimulate and help develop
young men, and multiplies himself through their lives many times.

WKB: Do you feel any regrets for having made that decision?

CBH: Oh, from a nostalgic point of view, yes, a little bit. But I ex-
pect if I had it to do all over again I'd do exactly what I did.

WKB: What is Sigma Xi?

CBH: Sigma Xi is a scientific society organized at Cornell many years
ago for the recognition of scientific talent. In a way it is in
the scientific world what Phi Beta Kappa is in arts and letters.

WKB: You've told us about Alpha Zeta, the agricultural fraternity you
were high chancellor of for about ten years. I have you listed
also as a member of Gamma Alpha.

CBH: Yes. Well, that is really a social scientific fraternity at the
graduate level. I was a member of the chapter at Cornell. We
have a chapter here at Cal. I guess you'd call it social, for
some chapters have houses. There's one at Cornell, although I
didn't live there as a graduate student. I don't think there's
CBH: a house here. But I would say its primary function is to promote social contacts among graduate students. Now, we have so many graduate students I don't know if such a fraternity is necessary or very useful. But these things have a hard way of dying off even after they may have outlived their usefulness. I don't mean to imply that they are never useful. They promote some professional, scientific, and educational contacts, and in some campuses may serve a very useful purpose.

WKB: I don't think we've mentioned the American Society of Naturalists.

CBH: That's another one of these scientific societies devoted to the advancement of natural science. I think it would be classified as one of the biological societies. I did get interested in it and I suppose was elected to membership by reason of my contributions, interest in, and participation in genetics. As I recall, the thing was at one time something of an organization of geneticists and naturalists, plant and animal breeders, etc.

Honors

WKB: I have you listed for an LL.D. from the University of Missouri in 1937.

CBH: That's my alma mater. I was happy when they thought one of their sons had attained sufficient stature in the world to be recognized by an honorary degree. Professor Pat McBain received an honorary degree from Missouri at the same time. He was a member of the faculty of the Boalt School of Law here. Before coming to California he was professor of law and dean of the school of law at the University of Missouri. He came to California about the time I came back from Europe in 1927. Pat and I were invited back to Missouri that year. I gave the commencement address. Pat didn't have to do this extra work for his degree! I knew him and his wife when they were undergraduates, before they were married, at Missouri.
Then you got a doctorate of agriculture from the University of Sofia.

That should have gone to the Rockefeller Foundation but they could not give a degree to the foundation so they gave it to me. That was because of my activities there when we granted fellowships to some eleven young men to help train a faculty of agriculture for Bulgaria.

Did you go back to Sofia to get that?

No, that was conferred in absentia. I couldn't finance the trip.

It was 1939. It must have been a bad year there anyway.

Yes, this was June 1939 and World War II was just over the horizon or around the corner, however one measures those things.

Was this Order of the White Lion in recognition of your Rockefeller foundation services also?

Yes.

"Agricultural Decoration, First Class, Belgium" -- was that too?

Yes, it was all the same thing.

I imagine this is France: Croix d'Officier du Merite Agricole.

That again was for the same activities, I suppose, plus recognition of my University work here. France does that often, you know.

And a corresponding member of the Czechoslovakian Academy of Agriculture. Did this involve any meetings, or was it honorary?

It was largely an honorary thing. You see, many scientific societies the world over have corresponding members abroad in recognition on the part of a society of someone abroad who has done some thing of importance in its field of activity or interest, so the Czechoslovakian Academy of Agriculture made me a corresponding member. I no longer have any contacts with it.

Civic Work

Let's cover some of your civic work now. The Berkeley defense council -- this is 1941, of course. You were chairman of the agricultural resources production committee. The council of
national defense was organized nationwide, wasn't it?

Yes, and they had local organizations following the same pattern throughout the nation. It got started about the time war broke out in Europe. We were at work when the Japs struck at Pearl Harbor. The National Defense Council was the first expression of total mobilization in this nation. Agriculture came into it from the standpoint of food. In many smaller towns and rural communities I suppose a lot was done, but there wasn't much agriculture in Berkeley.

But we did one little stunt with the University's cooperation. We divided the Oxford tract up into little plots and let people take a plot and grow vegetables there. A lot of the University people, including some of the women -- I well remember Agnes McKinnon, my budget clerk and bookkeeper, had a little plot down there. Josephine Smith, who worked on budget matters in the controller's office, had a little patch down there.

Was the purpose of it mainly publicity?

I suppose so. Of course, we didn't know when we got that thing started just how the war would develop and whether there might not be a shortage of food before it was over. Anyway, we used it to demonstrate the possibilities of producing food in back yard gardens. I'm disposed to believe that that is actually the only use the College of Agriculture ever made of the Oxford tract, at least during my time, that the city fathers of Berkeley really approved.

What is the Christian Rural Overseas Program for California, of which you were a chairman in 1949?

Oh, this overseas program, called CROP, preceded CARE, although I don't believe there were any connections.

Oh, it did? You worked with Glen Waterhouse, co-chairman for Northern California.

Yes. There was quite a state-wide organization developed here in California. It was a national affair. Glen was in our
CBH: Agricultural Extension Service. I served as chairman. The idea was to collect food and ship it abroad, primarily to the needy among our allies and for refugees and displaced persons.

WKB: Was this affiliated with the churches?

CBH: I think so, yes. Large quantities of food were donated by the farmers in California.

WKB: Oh, the farmers donated food? This was not like CARE, where people mail in financial contributions and then CARE sends surplus goods over.

CBH: We were actually collecting food in those days and shipping it.

WKB: Was this a well-received program at that time?

CBH: Yes, there was quite a lot of interest in it.

WKB: And then you were honorary chairman of the United Board for Christian Higher Education in Asia.

CBH: Only locally for the group here in Berkeley. Nationally that is the over all organization for the support of missionary colleges and schools, primarily in China. When the communists took over China this board shifted its emphasis to other areas of the Orient, including the Philippines, the Malayan Peninsula, and maybe some in Japan. These schools still go on, and such groups as ours still exist to solicit support for them.

WKB: Is it out of these contacts that your interest derives in hospitality facilities for Asian students?

CBH: It's all a part.

WKB: I see Mr. Pederson was chairman of that organization.

CBH: Yes, and I think he still is. Mrs. Rough, the widow of Professor Rough in the School of Education in the University, was very active in this. I think she is no longer living. But it was a group of local townspeople interested in church missionary work and its educational aspects. All of these missionary schools of various denominations had a general board with headquarters in New York. They still continue their campaigns of raising money
CBH: to provide support, any kind of support, for those educational institutions in the Orient. They are all adjuncts of the Christian churches of various denominations in the United States.

WKB: So that membership in this board would come through your church? I mean, you didn't serve as a representative of the church. It was a personal --

CBH: Oh, no. It was purely personal. I think it was the first year I was mayor. Local people knew of my interest in China and the Orient, and they invited me to help in a very worthy cause in which I as well as they were interested.
Section III  Personal Life and Political Career
Hutchison Family, 1957

Mrs. Tom Baugh of Oklahoma City (Claude Hutchison's eldest sister), Mrs. Brenda Hutchison, Claude Hutchison, and Claude Hutchison, Jr.
PERSONAL LIFE

WKB: We haven't done much on you biographically, except your childhood. You mentioned that you were married and had four daughters.

CBH: Yes. My oldest daughter is Mrs. Alfred Pulver who lives in New York. That's Helen. She has a boy, Richard, and a girl, Patricia, and they're both married. Dick has two children and Patricia one. So I'm a great grandfather three times.

The second daughter is Ruth. She is Mrs. Harry Cairns and she lives in Reno and has two boys.

I've mentioned Betty, Mrs. Proctor Shelley, who lives here. She has four children, two boys and two girls.

My fourth daughter is Lucille. Her name is Mrs. Elmer T. Morgan. She has a boy and a girl and lives in Ithaca, New York.

WKB: What did your daughters study in school?

CBH: Let's go down the list. Helen was interested in kindergarten teaching and that was her preparation. She first taught in the kindergarten schools of some place in New York, but most of her life has been devoted to mentally retarded children in a New York state hospital at Newark, where she lives. Ruth was a home economics major at Cornell. Betty majored in history at Cal. Yet she was married within six months or so of graduation and now is the mother of four children. While she has done very well as a mother -- as well as one could ask -- she is my prize illustration in my plea for a liberal education for women, mothers, based on the disciplines which in my opinion underlie home economics.

WKB: You didn't mention what your fourth daughter majored in.

CBH: She was in home economics, too, at Davis. So I did pretty well -- two out of four.

WKB: The present Mrs. Hutchison is an Englishwoman.

CBH: Yes, I found her in London. I met her during the period when I was abroad in the mid-twenties. We were married in 1931. We
CBH: built this house in 1933. After, that is, a couple of years in
a little place up on Regal Road. Claude, Jr., was born in 1938,
March 22nd, the day before the University's birthday. He discov-
ered later on that that was some sort of a handicap too, because
often during his boyhood -- it no longer bothers him -- Charter
Day exercises and my responsibilities therein sometimes interfered
with the proper recognition of his birthday on the part of his Dad.

WKB: What is his major?

CBH: Business administration. He early decided that he didn't want to
be a college professor because he saw too much economic differ-
ences between his family and those of some of his friends. It's
strange how these kiddies discover such things. Some of his pals
had much more opportunity to travel or do many other alluring and
interesting things, you know, than he did. Part of this was due
to the fact that I was away a good deal of the time. But he de-
cided early in his life he was going to be a businessman. As he
grew up he's done a number of things which seem to indicate to
me that he likes the business world and ought to succeed in it.

So he made the decision as regards a major when he entered
the University. I believe in that. Parents can only guide, they
can raise some questions maybe from time to time, point out cer-
tain things the youngster ought to think about. But there are so
many interesting and important things in this old world to do
that I believe everyone should be doing, insofar as possible, the
thing in life that they want to do more than anything else. The
financial remuneration will come along. One doesn't have to be
too much concerned with that.

WKB: Would you personally have been pleased if he had gone into sci-
ence or some other university field?

CBH: Oh, yes, of course.

WKB: ...assuming that he would be as talented in that as he apparently
is in business.
CBH: Well, I don't think he is especially talented for research, to be perfectly frank. Oh, goodness, nothing could have happened that would have pleased me more because in my own case if I had thought I had had the innate capacity for making substantial contributions in science I don't think anything could have tempted me to leave it. To me the most ideal career, if one has the capacity, is a scientific one, or at least in a field where a creative mind can express itself.

WKB: I wanted to ask you about your hobbies and side interests, and I rather suspect you didn't have much time for such things.

CBH: No. I've often said that I never learned to play as a youngster because I was always busy.

WKB: I think you said you went hunting sometimes.

CBH: Yes, if I have any hobbies it's those which take me outdoors. I like to hunt and fish. I don't do either any more, you understand, but at one stage in my life I enjoyed that. I used to enjoy gardening. I still like to get out and do a little, but not much any more. So I've never developed hobbies in the sense that a lot of people have.

WKB: Do you, or did you do much camping out? Were you a Sierra Club member or anything like that?

CBH: I'm not a Sierra Club member, but I've done some camping two or three times a year on fishing trips. One group went regularly. When the University had the old calendar, commencement came along the latter part of May; it was always on Saturdays. Sunday morning a group of us here at Berkeley, including President Sproul, Dean Putnam -- one of the new residence halls is named for him, he was then dean of students -- and two or three other people, would join a similar group from Davis. There were roughly five here and five at Davis.

We'd go up in the hills in various places for three or four days of camping and fishing. I think that group was intact for twenty to twenty-five years. We'd go once a year, after the rush
of commencement was over.

WKB: What did you like to do for your vacation? You usually took a week or two of vacation.

CBH: Usually to the hills. I used to say that living down here at sea level for most of the year, it always did me good physically to get up into the hills in a higher elevation. We were fortunate in that the California Forestry Experiment Station had a field station up at Strawberry, just below Pinecrest. During the WPA days they erected some buildings there, including a guest cottage. This cottage was not used much by the staff during the summer. Mr. Ed Kotok was the director of the Forestry Experiment Station and we provided office space for him and some of his associates on the University campus — Kotok and I were good friends and personally close in many ways, and our respective staffs cooperated in many ways — and he would invite Mrs. Hutchison and myself to go up there and use this cottage on vacation, which we did for several years.

My idea of a vacation was to get into the mountains and walk, hike, ride, fish, with a goodly portion of the time reserved for just sitting on the bank of the river, maybe in a camp chair, reading a detective story.

WKB: You traveled a great deal in your work. Did you ever travel on your vacations, or did you ever travel for pleasure much?

CBH: No. It's too much like work. No, I've never traveled for pleasure. I've been very fortunate that side duties or special assignments gave me an opportunity for travel.

WKB: Have you been very active in religious activities?

CBH: No. I don't even go to church, seldom. I don't know why. I grew up in a family very devoted to the church. My grandfather helped establish a local church in the town near where I was born. I remember him as a prominent officer in that church. My father was a deacon. Granddaddy was an elder as far back as I can remember. This was the Disciples of Christ, the so-called Christian
Church.

One time when I was on the Cornell faculty the kiddies were growing up and I guess I felt some obligation to get them started at least with some contact with the church and religious matters. So I went to church rather regularly during those years. When I came to California, at Davis there was a small community church there and, of course, I felt under some obligation to participate there as the chief administrative officer on that campus. But when I returned from Europe after four years absence by that time I had, I suppose, sort of drifted away from the church.

I well remember one time at Ithaca a very prominent professor at Cornell had passed away during the week previous to that Sunday, and the minister referred to him in his sermon. He made this statement: "To the best of my knowledge, Professor" (I've even forgotten his name) "was never inside my church." And he added, "And to the best of my knowledge he'd never been inside anyone else's church, but he was a deeply religious man." That made some sort of an impression on me. I don't know how you define these things, but from my point of view, at least, I think I am a religious man.

WXB: You don't equate church-going with religion.

CBH: That's right. Now, I believe in churches. It's an implement that society has to stimulate, promote, and encourage a good life. But some of the dogma and some of the practices and so forth never appealed to me. If all the various denominations, cults, or sects could forget their petty differences and admit that theirs may not be the only road to salvation and unite in one church it would make sense to me and I would have much more interest in church activities. Yet I think church experience is awfully good for children as they are growing up. It's a splendid supplement, not a substitute, for parental guidance into an orderly life. Mrs. Hutchison used to take Claude, Jr., to church, and he's a church member.
WB: Did you remain in the Christian Church?

CBH: No. I did up until the time I left Missouri. At Columbia, Missouri, the Christian Church was rather prominent, certainly one of the strongest in that community. In my student days at Missouri I went to the Christian Church there and I guess transferred my membership from my hometown church. When I went to New York there was no Christian Church and I affiliated with the Presbyterian. When I came to Davis there was a community church there, again under the jurisdiction of the Presbyterian Church. I was one time recorded in my biography in Who's Who as a Presbyterian. I think it still appears that way.

WB: Do you feel as mayor you should go to church, just as you thought at Davis you had to go when you were in charge of the campus?

CBH: I don't, and I've never been asked but once since becoming mayor what my church affiliations are.

WB: Have you affiliated with any fraternal organizations?

CBH: Well, I'm a Mason, but I never went beyond the Blue Lodge in that.

WB: Are you very active in that sort of thing?

CBH: No, I haven't been in a Masonic lodge in years.

WB: So this is almost a nominal membership. Any service clubs?

CBH: Well, when I was at Cornell, in Ithaca, I was a Rotarian. When I came to the small town of Davis there were no service clubs. Then I went abroad. I came back to Berkeley and almost immediately was invited to join a service club. But I was again away from home so much that I felt that I could not maintain anything like a respectable attendance, and I never liked to become a member of anything that I couldn't really contribute something to. So I declined the invitation.

Then when I became mayor all the service clubs invited me. I had the time then, it's true, but I was faced with the problem of deciding which. So that problem I solved by making a resolution that I would not join any organization while I was in office. On one or two occasions this has been helpful to me when I wanted
CBH: basically to decline an invitation. I can say truthfully that I've resolved not to join anything and I've kept that resolution.

WKB: It sounds like in your interests and vacations and all that you really are not a joiner.

CBH: I was just about to say that. I know some people who join almost everything that comes along.

I gave all of my time and energy and thought outside my family to the University, either directly or indirectly. My interest in national and international affairs has stemmed basically from my interest in education and interest in the University. So there just wasn't time. I believed and still believe that a member of the faculty of the University should give his complete time and energy to the University, its interests, its welfare, and that one can't work for the University from eight to five and be effective -- at least I can't. Some of my best thoughts have come to me after I have turned off the light and couldn't sleep. I still keep a pad and pencil on the night stand to write notes to myself.

WKB: I recall you said that when you went away to college you didn't believe in belonging to fraternities. You organized your own little non-fraternal fraternity, it turned out to be later.

CBH: And now a national fraternity, yes, that's true.

WKB: Did you feel it was a good idea for your son to join a fraternity?

CBH: Yes.

WKB: By that time you weren't anti-fraternity?

CBH: I don't think I can truthfully say I was ever anti-fraternity. I think it was because in my days and as an undergraduate the fraternity lads in the college of agriculture were the poorer students we had.

You ask about Claude. When he was ready to enter the University -- he never wanted to go to any place else but to Cal, he had lived in the Cal atmosphere all of his life and that was where he wanted to go. Fortunately his high school record was good enough that he was admitted without any qualifications.
Then I was up against another bit of educational philosophy that I've always had, namely, that a youngster ought to get away from home when he goes to college. There were no dormitories here. Boalt was the only one, you see, and there was no chance there. So his mother and I thought that the next best thing to going completely away from home would be for him to live at a fraternity house. He was invited by two or three of the best fraternities. He chose the one he wanted to join and he's been very happy there. It's been good for him. He's an only child so far as home life goes and his fraternity contacts, I'm sure, have helped him because he is a well-adjusted, well-balanced young man.

WKB: Had you ever been active in politics before you became mayor?

CBH: No.

WKB: You took no interest in politics?

CBH: Oh, I took an interest, but I've never been able to convince myself that I could disassociate myself from the University.

WKB: In other words, you felt you had to be non-partisan, at least publicly.

CBH: That's right. I had to, therefore I could not be active in political campaigns. I admit that that point of view is not held by every member of the University staff currently. Some believe that University people should be more active politically. I don't.

WKB: From the point of view that they're better qualified?

CBH: Yes, some have that egoism. And from the point of view that they make up, especially here in Berkeley, a substantial segment of the community. Some people argue that we ought to use University people more on some of our commissions than we do, for their expert knowledge. I don't believe so, myself. I believe that boards and commissions should be made up of intelligent laymen rather than experts. We have the experts, technicians, some in our own city departments, and always available to us in the University. We can and do seek their advice, and they are willing
to give it. Of course, some University people qualify as good laymen and we do use them from time to time. They shouldn't be discriminated against, but neither should they run the city show.

I think the least political influence or pressure upon or around the University in any way, the better it is for the University. When members of the faculty become active in partisan political campaigns, I just can't believe that that does the University any good. Of course, in the polling booth I always expressed the best judgment that I could, always striving to put the University above and beyond the influence of political or religious pressures. That's become just a part of me. If I had it all to do over again I would try to do the same thing.

In the polling booth do you consider yourself a Republican or a Democrat?

Basically a Republican in philosophy, although not partisanly so.

I should think your family would have been Republican.

They were not. They were Democrats. Now, if you ask me why, I want to tell you why. I grew up in the state of Missouri. My grandfather came into Missouri as a young man, twenty-five years old, from Kentucky. His parents had moved from Virginia to Kentucky. So as far back as I can trace it the family came from Scotland to Pennsylvania; Pennsylvania down through Maryland, Virginia, Kentucky, and Missouri. Both of my two sets of grandparents were slaveholders. Both of my parents were raised by Negro "mammies," and when I use that term I use to me a term of endearment. My father was born in 1850 and Mother in 1952, so they were eight or ten years old when the Civil War broke out. And both of them have told me that their parents had promised them -- Dad -- a Negro boy who was about his age. They played together on the farm, and went to a country school together, and grew up together, and it was understood that that boy was going to belong to Dad when he reached maturity. And a girl had been
assigned to Mother in the same way.

Now, those are facts. I'm not proud of them but they are facts, and this country fought a civil war over them. So Dad was a very devoted, dedicated Democrat. Why? Not from a philosophical point of view, I'm sure, because he was, like myself, by nature a conservative. But he came from that background. He was the type of a Democrat that Senator Byrd of Virginia is, Senator Russell of Georgia, and some of Father's own generation, some of the other prominent and conservative Democrats, let's say, from the South. As I look back on it, I was for a long time a sort of political black sheep in the family. In fact, Dad used to say that.

WKB: So you feel you have probably followed the same ideas but you have gotten away from the Civil War, you've switched to the political party that better presents your ideas.

CBN: Yes. And I can put that in a very simple way. My ideal democracy would be one in which the individual, regardless of his origin, race, color, religion, has equal opportunity, through education, to attain that position in life that his own innate ability will permit him to attain. I dislike to see any individual try to advance his own interests at the expense of someone else. I like to see him advance his own interests, be enabled to, be encouraged to advance them, in proportion to his own ability and willingness to do his job well.

WKB: I don't think Democrats or Republicans would quarrel with that philosophy. That's not a differentiation of party.

CBN: No, that's right. I don't mean to imply that it is. I'm just trying to set down my philosophy of a real democracy.

Now let me say, however, that it does enter into the thinking, politically, of some people perhaps in both parties. Doesn't that go contrary to the basic labor union philosophy where they often try to keep things equal? No one should be paid any more than the other fellow notwithstanding that he may be a more competent
man. This destroys initiative. I'm against that and I think I see in many segments of the Democratic party, for example, that that sort of thing is being adopted, because that gets votes.

Surely. I think we've had something of that in our school system too. As I get the picture, we devote far more effort in the schools to the less competent than we do to enable the more competent to go faster to, and as far as, their innate ability will take them. It's a sort of a leveling out, and that's mediocrity instead of democracy, to my way of thinking.

It sounds like so much of your life was devoted to your work, and you didn't have much time to get into outside things -- didn't that make retirement awfully difficult for you?

Yes, retirement was quite a jolt. I should have prepared for it better, more. But I was busy. Then, I had in mind certain things that I was trying to accomplish and to develop in my segment of the University. And time was running out. I knew that retirement, like death, was coming some day, but I wasn't a darn bit interested in either one of them. Maybe from a religious point of view some of my friends might argue that I haven't prepared for death very well either. I certainly didn't prepare for retirement very well and when it came it was quite a jolt. But again, I was able to do a few things in the way of adjustment. Going up to Nevada for a couple of years helped me let down. Then the good people of Berkeley came along with this notion of my becoming mayor, and that's helped me too. I'm well adjusted again.

Yes, that's because they put you back to work.

Well...yes, if you want to put it that way. At least it got me off the shelf where I felt I had been deactivated by society. If I had been a professional man with my own practice -- law, medicine -- or if I had been a farmer or a businessman, I could have continued to go ahead and retire gradually like my brother-in-law
CBH: My brother was in the business world, in the John Deere Plow Company, and I suppose they have a retirement age. Most big companies do. But he died before he reached that. My brother-in-law had his own business and he just gradually dropped out and his son took over, you see. Now that's an ideal way.

But in quasi-public life -- I guess you'd have to say the University is public life -- you're chopped off. Suddenly, too, if you don't watch out and begin to prepare for it. And I am in a bit of a quandary at that point for that goes counter to my statement that one owes his all to the University as long as he is active and physically and mentally competent.

WKB: For some years before you retired there seemed to be some concern about who your successor would be.

CBH: Was there? I was never interested, myself, in that.

WKB: If you didn't interest yourself in it, still it was a matter of continuation of your policy.

CBH: No, I firmly believe that no one should have any authority, certainly, in the choosing of his successor. I think he ought to be available for advice, for consultation, if whoever is going to make the decision wants to consult with him. I was consulted a bit by the chairman of the president's advisory committee, but not in great detail.

WKB: I believe there's a letter from you saying that you didn't want to participate in that.

CBH: I can't remember if I recorded that in writing, but I firmly believed in that principle. I had had my time. True, I'd like to have had just a little more time because the depression and World War II slowed us down just a little bit. I have put it this way several times: I didn't have time to drive all of the spikes I wanted to drive into my structure. Maybe it wouldn't have fallen down as rapidly as it has if I'd had that time, because my structure certainly has been markedly changed, if indeed it has not disappeared. I said the other day to a fellow -- this
CWH: is not original, it's been said by many people -- that often an institution is but a shadow of a man. I've come to the conclusion that the shadow can be erased awfully quickly.

WKB: Do you keep up with what's going on in the College of Agriculture now?

CWH: Only in a general way. I resolved to keep out of the way of my successors. I seldom go to a meeting unless invited.

WKB: You don't maintain an office?

CWH: Oh, no.

WKB: Because you're listed on the roster of officers.

CWH: Oh yes, that's University policy.

WKB: And I know many of the professors do continue to work in their offices.

CWH: Oh yes, surely. Well, you see, I got into this political game. This takes all my time now. No, I had my time in the University. I tried always to do the best I could, and now it's up to someone else. I'm available if anyone wants something I can give. Once in a while somebody does come around, but not very often anymore. It's astounding how quickly one's forgotten, but that's all right. I had a lot of fun in doing what I did. I tried to build soundly and wisely. Some of my ideas my successors didn't like and they changed them, and at least one they've come back to it, partially.

WKB: Today more and more people work in some kind of an organization that does have a compulsory retirement age. What could they do to prepare for retirement? Even though you knew you were unprepared, what could you have done otherwise?

CWH: I don't know, frankly, what I could have done. I don't think I would have done anything. But some of our people in agriculture have farms or ranches which they still manage and others have acquired them since retirement. Whatever it is, it should be interesting and keep one only as busy as one wants to be. People mature at different ages and they die at different ages, even though they're still physically alive. Some begin to deteriorate earlier
CBH: than others. Now, I've always thought that it would be possible to devise a scheme that would recognize that.

We have a very effective scheme of appointments in this University of ours. People are screened very carefully by committees of their peers, and we have a good mechanism to determine who is worthy of membership in our faculty. Now, why can't that same mechanism or a similar one be created that would determine that some people, beyond any arbitrary age set for retirement, would still be useful and valuable to the University for a few more years beyond that. I see no reason why a committee of peers shouldn't aid the president and the regents in determining who should be continued for a few more years, or even who should be retired a few years before the arbitrary age.

WKB: After your retirement I believe you went to Pakistan then, on a short stay. What was that?

CBH: That was in connection with the Point Four program. But I became ill at the time, in Pakistan. It turned out merely to be a kidney stone, which the U.C. Hospital over here readily diagnosed and removed. So it wasn't anything serious, but in a faraway country without proper medical attention it was a little disturbing. Just the fact that they didn't know what it was. So I came home. I was there only about three or four weeks when this hit me.
DEAN OF THE COLLEGE OF AGRICULTURE, UNIVERSITY OF NEVADA

WKB: When did you decide to go then to the University of Nevada?

CBH: Soon after I came back from Pakistan. The presidents of the University of Nevada -- and there were quite a few of them -- all of them, beginning with President Clark, used to come down to Berkeley occasionally and come in and talk with me about their own agricultural work. This included President Malcolm Love who was, at the time of my retirement, president of the university. He heard of my retirement even before I went to Pakistan and invited me to come up. I had committed myself to the trip to Pakistan at the time, so I said, "I'm sorry. I've got this job to do first." Then, after circumstances brought me home and I found what my physical difficulty was, I asked him if he had found anyone or not and if not I was prepared to give further consideration to his proposal. He immediately responded and invited me to come up. I went up and talked the matter over a little bit further, met the regents and so forth, and I decided I would try it.

I was there about two years. The conditions were such that I didn't want to go permanently. It was to be just for a few years, in my mind. I didn't even move, left Mrs. Hutchison, the boy, and the dog at home, and I got a little apartment in Reno. I would come home every two or three weeks, or they would come up to see me.

Soon after I arrived Mr. Love left and another succeeded him, President Stout. He immediately got into some difficulty with the faculty. The local situation there deteriorated, because not alone of the trouble President Stout got into with his faculty but for other reasons, and I finally became convinced that really I was in the way, for it was a situation which could not be solved in two or three years. I thought if I were not there the
president and the regents could find a young man who would be willing and able to spend as many years as necessary to really put that college of agriculture of that institution on its feet.

WKB: Was the difficulty involving the faculty a matter of the president wanting to have more control than the faculty...

CBH: Yes. They had a small but pretty good faculty there, but Mr. Stout had had no university administrative responsibility before.

WKB: He thought this was more like a business.

CBH: Well, he wanted to direct it more like a high school. His whole experience in education had been at the secondary level. When he came to Nevada he came from the principalship of the University of Minnesota's so-called "educational laboratory" -- it was merely a high school to be used by the university for training teachers. And he couldn't adapt himself to a university system where academic freedom was important. He encountered a lot of difficulty, resulting in the discharge of a few professors. They brought suit against him and the regents for reinstatement, the suit went to the supreme court of the state, and the court sustained them. It was somewhat similar to the oath controversy here, although there was no oath involved. It involved more basic principles of academic freedom. Plus conflicts in personalities and conflicting points of view of what a university really should be.

WKB: Was this temporary or had this condition gone on for many years with different presidents?

CBH: The past presidents there, those following President Clark, didn't last very long either. The institution for several years had not been very stable. The immediate past president, Dr. Love, who is currently president of San Diego State College, is an able man. He believed in the faculty playing an important role in the academic administration of the university. He did many things to foster that. Mr. Stout abolished all of those things. He wanted direct administrative control.
CBH: I used to say jokingly to some of my friends here during the time that I was in Nevada that if I, as dean of the college of agriculture at Nevada, had all of the money I had as dean of the College of Agriculture at California, I could have gone places. I could have done something because the president's philosophy was to use the navy form of direct line control. He gave the deans of his colleges entirely too much authority, in my judgment, to control things and to completely ignore the faculty if they wanted to. I didn't believe in that sort of thing, see, so it was a bit of an uncomfortable position for me to be placed in. Despite the authority I had, I tried as best I could, in the small group of people I had with me, to practice other procedures, those I had been accustomed to use in California.

WKB: Did you feel it was lack of money that kept the University of Nevada from becoming a first-rate university, or was it lack of a tradition and philosophy?

CBH: Well, both. The state did not support the institution as well as it should have. And lack of proper leadership in the university, including the board of regents, because the board of regents were elected by the people. There were five regents, each elected for a term of four years. Many people in Nevada used the university regency as the first step toward a political career. They would get their name before the people by running for the regency. During the two years I was there three out of the five regents were candidates for higher offices. One was a candidate for governor.

But I met people in Nevada, several of them, who would make excellent regents, but who would never conduct a political campaign to attain it. They would accept appointment by the governor, serve the university well, but would not go into politics to gain it. I was more than ever convinced by this experience in Nevada of the soundness of California's plan of gubernatorial appointment of University regents.
Nevada is just like a small town. Everybody knows everybody else. If you go to a meeting on some phase of human interest in one part of the state, and then two weeks later go to another meeting for another purpose in a different part of the state, the chances are that 75 per cent of the attendance at both meetings would be the same people. So for one of my background, temperament and experience, it was no place.

That was from 1952 to 1954. Then you returned to Berkeley.

Yes. I made the final return trip to Berkeley on or about July 1, 1954.

Then I had a few things to do which kept me reasonably busy, occupied some thought and time until September or October. From that time until February I wasn't doing very much, except growing more and more restless.
MAYOR OF BERKELEY

Decision to Run for Mayor

WKB: It was after your return to Berkeley that you began your political career. Had you ever been involved in local politics before?

CBH: Never, except to vote. As I said before, I never became active in politics, partly because I felt that I could never disassociate myself from the University in the public mind, and partly because I felt I couldn't afford the time from my University responsibilities.

WKB: Would you have run for a partisan office, Democratic or Republican, in 1955, when you were retired, or would you have felt that even though you were retired you were still too closely associated with the University?

CBH: I don't know if I can truthfully answer that now. I'm inclined to think that at that time I would not have done so.

WKB: What new information has caused you to change your mind?

CBH: Maybe it's because I've gotten farther away from the University, and I don't think about University matters today as much as I did when I was active and some of those matters were my responsibility.

WKB: Is this because now you've established a new role for yourself as mayor that would be acceptable for a political person?

CBH: Yes. As a matter of fact, within the last two weeks it has been suggested to me that I become a candidate for higher political office, and partisanship very much enters into it. That would not have been proposed, I'm quite sure, had I not been mayor, because the mayorship has brought me into the political field. You can't escape that, despite the fact that the mayorship in the city of Berkeley is defined by the city charter as a non-partisan office. So are the offices of the members of the city council and they
are generally so regarded, at least they have been in the past, but in recent years there has been more and more change in the minds of some people, including some on the council, that the council and the mayorship here should be political offices, and some Berkeleyans certainly treat them as such. In fact, a bill was introduced in the last session of the legislature to make such offices partisan and political. I don't believe in it and I'd hate to see it happen. I think non-partisanship belongs at the local government level. I'm one who carries that over into county government too.

Of course, up until this last year, until the last session of the legislature, we had for fifty years this cross-filing system for state officers which in my judgment tended to prevent the development of some of the bad things in partisan politics, even at the state level, that have occurred elsewhere.

WKB: I take it you were sorry to see it go.

CBH: Yes, and that, I suppose one would say, is because I'm not too strongly for partisanship, even at the state level. I wouldn't be even at the national level if we had a different system.

WKB: When you were approached to consider running for mayor, what were the issues to be?

CBH: To be perfectly frank and honest it was personality more than anything else. It was both personal and partisan. The previous mayor had been a prominent member of the Democratic party. He tried to get his party to endorse him for the governorship, but his party declined. But he occupied a prominent place of leadership in Alameda County Democratic circles and he was bringing partisan politics into our local government, and a lot of people disapproved of that. There was another group that disapproved of him because he is a man of the cloth, a minister. A goodly number of people in Berkeley felt that politics and ministerial duties didn't click, and they opposed him on that basis. The
CBH: other criticisms I have heard were personal.

The group of people that conceived of the idea that I might be a candidate felt, as they said to me, that Berkeley needs and deserves better representation which they thought I could bring.

WKB: This is still a matter of personalities, not what should be done with the city.

CBH: Yes. As I recall, there were no controversial issues. Everyone urged that Berkeley be made a better place in which to live and work. Some urged more speed than others to attain that goal -- liberalism vs. conservatism. There was some extreme liberalism, leftist movements, leftist philosophies in the minds of some voters, such things as my opponents approval of the use of the school facilities for meetings at which Mr. Paul Robeson, the Negro singer, who many people regard as if not a communist then awfully close to it, was to speak. In those days the mayor was ex officio a member of the school board. He approved the application to use the school facilities for such meetings, and a lot of people didn't like that.

WKB: A feeling that he was a little too leftist in some of his policies?

CBH: Yes. So I would add it up and say those were the primary factors in that first campaign: the development of partisanship in a non-partisan office, extreme liberalism, and the philosophy of separation of church from state.

WKB: Do you recall who first proposed you run for mayor?

CBH: Yes. I can easily tell you the name of the person who thought of me. That was Mrs. Marshall Ricksen, a loyal alumna of the University. Her husband is also a prominent member of the alumni association. Mrs. Hutchison and I had known them rather well for several years. She knew that I was retired. She was in a group of local people that had been seeking a likely candidate. I don't know who organized the group, but she was a member of it -- a group of people that felt that it was time to make a change
in the mayorship of Berkeley. They had been meeting for several weeks when suddenly one night at home she thought of me. Her husband seemed to agree with her. He was the first man to call me and make what seemed to me at the time the most fantastic proposal I had ever heard. As a matter of fact I had already been asked by some of my colleagues in the University to think of another foreign assignment for a while and I was mulling that over at the time.

A few days later he called again and made arrangements to bring over three rather prominent people to see me, men whose names I had heard but who I didn't really know. One of them was Mr. Edward Martin, a member of the city council. He had been a member of the council for some twenty-three years. His term of office was expiring but he was not a candidate for re-election. He had served his city long and effectively and had decided to drop out. We talked about it, Mrs. Hutchison and I, putting up all the arguments we could think of as to why I shouldn't do this. Finally they said, "Before you make up your mind completely we'd like you to meet the group downtown who are interested in this." I went down there and I was somewhat astonished but highly pleased with the people who were gathered around that table, again some of whom I knew only by name.

WKB: Was this a special club or just an informal group?

CSH: Just an informal group, members of both parties. Mostly business and professional men. I recognized immediately the caliber of people who were seriously interested in this. Finally I said to them, "All right, I'll do this with certain conditions. First is that you run the campaign. I'll try to do what you ask me to do, within reason, and we'll put this idea up to the people of Berkeley. If they think it is as good as you seem to think it is they will say so on election day. If they don't think so they'll also say so on election day. We'll leave it up to them and no one's feelings are going to be hurt one way or the other."
C3H: Well, the people of Berkeley said "Yes" on election day, by a rather substantial majority. After the election was over I said to those people that I was rather glad that it went that way because it gave me again something of importance to do. I wouldn't feel quite as much on the shelf as I had during that last four or five months between the Nevada assignment and this. I don't mean to imply that I might not have found some other interest sooner or later, but there was nothing especially to do at the time, and in a way I was vulnerable. I enjoy meeting people and working with people and I love Berkeley.

WKB: Even though you didn't actively campaign, did you have to go out to many of those neighborhood meetings?

C3H: Oh yes, I tried to do those things. You see, I was not known except by name to a lot of people in Berkeley. I had not been a member of a service club or participated much in civic affairs. So the people who were running the campaign felt it was important for me to be at least seen and heard briefly. I went to teas and coffee breaks and that sort of thing, and candidate's meetings at the various agencies like the League of Women Voters and some of the PTA organizations and some of the fraternal groups, and all of the service clubs. Members of the latter would take me around as a guest and I was introduced.

So the people of Berkeley, like my first high school principal, said, "Come along and try it." The metropolitan press called the results of that first election a political upset. The vote was between 55 per cent and 60 per cent in my favor. And in this recent election no one of substantial proportions wanted to oppose me.

WKB: I think it was just a socialist who ran against you, wasn't it?

C3H: Yes, a young fellow, a Norman Thomas disciple, a graduate student in sociology in the University. I think he said he made his living by being a salesman. Something approaching 97 per cent of the vote cast was in my favor. There are always some disgruntled people
CBH: who vote "No," and there's a certain proportion who vote against all incumbents just as a matter of course, plus what I call the intelligentsia element of the University faculty, the beatnik element of the student body, and the fringe elements of the two political parties, particularly that of the Democratic party, who regard me as too conservative -- those were the few that voted against me, I presume. I was a little interested to know -- I think it may be a bit significant -- that in a community like Berkeley only about 13 per cent of the people who voted belonged in those categories. That's a pretty good measure, it seems to me, of the substantial qualities of this community.

Duties as Mayor

WKB: Once you got into office did you find that your previous experience as dean of the College of Agriculture was valuable to you, or did you have to learn many new techniques?

CBH: Oh, you see, there's this difference. We have the council-city manager form of government in Berkeley. The city manager is the administrative officer of the city, of the government. The council is the legislative body and policy-forming body. I'm not an administrator as mayor of the city.

WKB: Is the city manager more comparable to the role you held in the University?

CBH: Yes. I would say that the city manager in relation to the city council is about in the same position as the president of the University is to the board of regents.

WKB: But I think the president of the University is a very strong policy-maker and ordinarily the board of regents goes along with him.

CBH: Yes. Well, I would say that even the city manager is to some extent a policy-maker -- the president of the University is himself a regent and his vote counts on the board of regents as much as
CBH: anybody else's does. But in the city government the city manager is not a member of the council, he can only recommend. But he does make proposals to the council on which the council acts, and by acting establishes policy. So you can say that the city manager plays a role, and often a very important role, in policy-making by the council, if only through his recommendations.

WKB: What is the role of the mayor here in Berkeley?

CBH: First of all he is president of the council and its presiding officer. He is the official representative of the city, as the charter says, in all public functions —

WKB: Sort of a ceremonial role.

CBH: Yes, but it's more than that. He is the official representative in dealing with other cities, dealing with the county governments, the state government, the governor of the state.

WKB: So he's the liaison man with all the other governments the city deals with.

CBH: Yes. Let me get a copy of the charter here.

WKB: Well, I don't just want the charter. I want to know what he does really. [Laughter]

CBH: I was just using that terminology to indicate what his governmental functions are. You ask what he does really. I say he does a lot of stuffed-shirt work. He meets distinguished guests who call upon the city. He is called upon by all sorts of organizations to greet people. Whenever there is a convention of any sort in the city — religious, commercial, industrial, educational, fraternal — it seems to be protocol to ask the mayor of the city to appear at the opening session and bid them welcome and all that sort of thing.

Then there are various organizations in government. One that I think of that I suppose I spend as much time on as any is the Alameda County mayors' conference, which is a conference of the mayors of the thirteen cities in our county, which meets regularly once a month to discuss matters of mutual concern and
CBH: interest and importance to all of the cities. That brings us in contact with the board of supervisors, the county governing body.

If I do say it, we here in Alameda County have done a pretty fine job in that respect, so much so that Alameda County is known throughout the state as one of the counties where the cities have been able to work out cordial and profitable cooperative working relationships with the county government. That isn't true of all counties in California by any means.

WKB: On these kind of problems is it necessary for you to do a lot of your own research?

CBH: This is an example: We're concerned with streets and highways, the use of gas tax funds. These taxes are collected by service stations. This money goes to Sacramento and then comes back to the county. A portion of it is used by the board of supervisors for improvements and developments and repairs to county roads. The rest is distributed to the cities on the basis of a formula which the mayors and the supervisors agreed upon a number of years ago, based on street mileage and population. We use that money for improvement of streets of more than local importance, streets of county importance. That's just one illustration.

Yes. You ask where the research is done. We use the city managers of the various cities as our staff in doing the research necessary to enable the mayors to determine their policy in such matters. Alameda County has a county administrator with a staff, so the board of supervisors lean upon him for the research work there they need to have done.

WKB: Then is it necessary to persuade the city council to agree with whatever the mayors' conference decides on?

CBH: Yes, the mayor has no authority to commit the council on any subject unless the council authorizes him to do so. In the mayors' conference I speak as an individual, but as an individual I express not only my individual point of view but often I think I can fairly accurately say what the council's point of view is
because maybe we've discussed this particular point or we've discussed other things comparable.

The mayors' conference never takes authoritative action, however. It expresses its judgment. It's not a unit of government. The mayor can only express his judgment of what he thinks his council will do.

WEB: You spoke of your ceremonial or stuffed-shirt duties and this work with other governments. What other things take up your time?

CBB: There's another thing which is brewing in this whole Bay Area now which is taking some of my time and energy. That is the proposal to establish in the nine counties which constitutes the Bay Area a metropolitan council. The Alameda mayors' conference took the initiative in this development by calling here a meeting at the Claremont Hotel last March to which 81 cities in the nine counties were invited. No action was taken, but at the meeting interest was expressed in carefully exploring the matter to determine its merits.

WEB: Is what is planned going to be an actual authority?

CBB: No. What is planned is an informal voluntary organization of local governments which will probably be called the San Francisco metropolitan council or some such name. The membership will be made up of cities, we hope as many as possible, although we don't expect every city in the Bay Area to be a member of it at the start. But we have invited all of them. There are 83 cities now in the nine Bay Area counties of Sonoma, Solano, San Mateo, San Francisco, Santa Clara, Napa, Marin, Contra Costa, and Alameda. We expect the boards of supervisors of each of the nine counties will be a part of it, although at this time the exact manner of arrangement of this has not been worked out.

WEB: This would be an advisory council similar to the mayors' conference.

CBB: Yes, it will be an extension of the philosophy back of these county mayors' conferences to the whole Bay Area. We hope to have a staff which will be concerned and competent to study metropolitan
problems. We are trying to define a metropolitan problem as one affecting at least a portion of every one of the nine counties. Problems like air pollution. Berkeley couldn't do a darn thing itself, alone, on air pollution control. But the whole group can do a lot. Rapid transit is another thing. I suppose Alameda County could do something about rapid transit within the county but that wouldn't meet the problem, so we've got to get all the counties concerned in the Bay Area. Another thing which progress has already been made on is regional planning for the whole Bay Area. And there are many other problems.

The staff of the League of California Cities, I think, are responsible largely for the initiation of this proposal. But the Alameda County mayors' conference got interested in it and took the initiative in calling the first meeting. The second meeting was later arranged in which Berkeley was invited to participate, and out of that meeting came a proposal to set up a program planning committee made up of the mayors of one city out of each county. Out of the thirteen cities in Alameda County the group said, "We want Berkeley to take this on," and therefore it has fallen to my lot, as mayor of Berkeley, to take the leadership in the thing.

I was chairman of the program committee. I called a second area-wide meeting in October. Out of that came further authorization to form a committee to study and prepare a set of by-laws and form of organization, and we're in the midst of that now. As soon as that is done early in the year I hope to have another meeting of the 83 cities, plus the boards of supervisors of the counties, because in the meantime the supervisors have set up a committee to do similar things at the county level, and will undoubtedly join with the cities in this undertaking.*

*August 1961. This organization has now become the Association of Bay Area Governments. Six counties and 56 cities have become members and we are at work. Headquarters have been established in the Hotel Claremont. Mr. Wilbur Smith, formerly assistant
It takes a lot of ground work, doesn't it?

Yes. So my duties are not just here in the city hall, let's say. I meet pretty regularly with the directors of our local chamber of commerce. I occasionally attend meetings of the Oakland chamber of commerce. I participate in other activities designed to foster and promote a good healthy business climate not only here in Berkeley but throughout the county and the Bay Area. I am a member of the board of governors of the San Francisco Bay Area Council.

So the mayor of such a city as Berkeley is has an opportunity to be of some service beyond the city's boundaries.

It sounds like you're out of city hall quite a bit of the time.

Yes, so far as city hall work is concerned, except the meetings of the council, four a month, and some of the committees of the council, the actual time spent in the office may be a couple of hours a day.

Do the city council meetings offer enough time to work with the city council and the city manager?

No. I have frequent conferences with the city managers and conversations with the council members, informal and mostly by telephone. Sometimes we have what we call "study sessions" of the council, which are open to the public. The Brown Act, a state law, prohibits any action to be taken at a closed meeting. We don't have executive sessions.

Does this apply to Berkeley?

Yes. We do have what we call "conferences" once in a while, where we have a personnel matter to deal with. We will meet before the council meeting to consider some problem, but we never take action on it. We talk over and think aloud with our colleagues on matters.

director of the American Municipal Association in Washington, D.C., has been appointed executive director. I am serving as the association's first president. [C.B. Hutchison]
Study sessions are helpful when there's some important problem before the council which requires more study than is generally possible in a more formal meeting of the council. They generally follow a morning session of the council. Then we will declare a recess and reassemble in the council chambers around a table, in a little more informal environment, and discuss the matter. If we reach a decision we may take action then because the study session is a part of the regular council meeting.

WKB: I thought probably before you went to the council meeting you'd have to be either briefed by the city manager as to what --

CBH: No, we do that right in the council meeting, and that's why sometimes our meetings are pretty long because we may get into a discussion and sometimes a debate over matters. There's no way to avoid that that I can see.

WKB: Do private citizens come to see you to discuss some matter that's up?

CBH: Oh, yes. Citizens come in to see me frequently. They also contact various council members. Of course, a lot of them write to the mayor and city council. Those letters are always on the agenda for consideration. If they require some action they are mimeographed and distributed with the agenda of the meeting to all the council members a few days before the council meets so they'll have time to think it over. Then if additional information is needed the council asks the city manager to provide it. If he can he does it right then. If he doesn't have the answer we may decide to defer further consideration of this matter until the next meeting or at some later date.

WKB: Is it necessary for you to spend much time studying either the information the city manager gives you, or perhaps studies from other municipal bodies? Or does the city manager pretty well digest that?

CBH: That, I would say, depends upon the particular matter under consideration. If it's involved we will often ask him and his staff
to study it and make a recommendation to us. But every member of
the council is encouraged, at least, to study these things as
carefully as he can. Most of them besides myself and now Mr.
Stone, who was elected to the council about the time he retired
from the University last year, have other activities and responsi-
sibilities. They can't possibly devote all of their time to city
matters as I can. Anyway, the knowledge and point of view of the
city manager is frequently important and his recommendations often
affect the council's decision.

WKB: Do the other council members have to put in a lot of time in this
study or in talking with the public?

CBH: No, not so much, once in a while. I try to take on most of the
public meetings myself. Once in a while I have to turn to the
vice-mayor or some other member of the council if something pre-
vents me from doing it.

WKB: Councilmen get $75 a month?

CBH: I think so. And I get twice that. Therefore, you see, I ought to
do twice as much.

WKB: It still doesn't seem like a very good way to make a living. You
are paid a very low hourly wage, I'm sure.

CBH: No, at times I think I'm about as busy as I used to be in the
University. Certainly one needs some other source of income.

WKB: I've read some studies where they suggest that the mayor should
be sort of a public relations man, not ceremonially, but to pre-
sent issues to the public and perhaps to espouse a certain cause,
to try to get the voters to vote one way or another. What is
your view on this? I suppose this is a policy-making role with
regard to the citizenry.

CBH: You refer, I think, to the council-manager form of government that
we have in Berkeley versus what is sometimes referred to as the
strong mayor form of city government such as is found in San Fran-
cisco, indeed in most if not all of the large cities of the
country. In these cities the mayor is very much in the public
eye. He generally appoints the city's several boards and the
commissions and these report to him as the city's chief executive. He must take the leadership and the responsibility in proposing and espousing various causes.

In Berkeley's form of government I have always regarded the council as the governing body. Of course, the mayor has some responsibility of leadership as does the presiding officer of any organization, but he has no veto power and his vote carries the same weight as that of any other member of the council. I suppose my views in this are influenced by my many years as an administrator and leader in the University. I believe in teamwork. A University president, vice-president, or dean, has no corner on all the good ideas. He ought to be encouraging all of his colleagues and associates also to think, to be creative, and to make proposals for further developments. I think the same or similar procedure is good in the form of government Berkeley has.

In the matter of public relations, I think the mayor and city manager should work very closely together. The mayor, if informed, can often carry the political leadership involved in some proposal made by the city manager, but if he has to read of this first in the local press some damage may be made in public relations before the mayor gets into the act. Also, we have found citizens' advisory committees in Berkeley very useful in public relations. Naturally the council and the mayor must take the leadership in developing information and facts, but before it is presented formally to the voters for action I think it is much better if a committee of substantial citizens will interest themselves in the proposal and tell the people of Berkeley of these needs, rather than the council or the mayor taking it upon himself or themselves to say, "This is what the people of Berkeley need and should do."

WK5: Do you think this would be more effective or more proper?

CBH: I think what we're doing is going to be far more effective.

WK5: You think that the citizens' committees are far more effective in getting public support than if it seemed to come from an authority.
CBH: A political body. Yes, I think so. It just makes good sense to me. The citizens themselves are all members of this city family of ours and are vitally concerned, or should be, with its welfare.

City Manager and City Council

WKB: I believe I asked you if you thought your role as mayor compared to your role as dean, and you didn't. But then does Mr. Phillips' role compare to your role as dean of the College of Agriculture?

CBH: Yes. There's more similarity there because the city manager under the council-city manager form of government is the administrator of the city government. All the employees are under his administrative jurisdiction. He employs people and, if necessary, discharges them, and directs, broadly speaking, their activities. He reports to and takes directions from the council in policy matters. Our charter very clearly establishes the fact that he is the administrator. His term of office is subject to the pleasure of the council. They employ him, fix his salary, and again, if necessary, fire him.

But the council is prohibited by law, and very properly so, from dealing with any member of the city staff directly. Our contacts are made through the city manager. The council may make suggestions to him as to studies that we want him to make. When problems come up we frequently refer them to him for study and report.

WKB: As dean of the College of Agriculture it was my impression that while your decisions went up to the president, still that he very seldom interfered with your recommendations. He usually accepted them.

CBH: Generally speaking, that was quite true.

WKB: Does the city manager initiate policy as much as you did in the College of Agriculture? Do you accept his recommendations as often as Sproul accepted yours?
Almost as often. However, I think we have to draw this distinction. The council is a legislative body and it is subject to political pressures, maneuverings, thoughts, and actions. But despite all of that I think it is fair to say that the recommendations of the city manager are generally accepted. You see, if they weren't we'd think there was something wrong with the city manager and we'd probably begin to think about getting a new city manager.

I don't mean to imply that his recommendations are based upon what he thinks the opinion of the council is. Our current city manager, and that's the only one I've ever dealt with, makes his recommendations on what he believes is good for Berkeley. Now, we may not always agree to that because the council consists of elected representatives of the people of Berkeley. We try to represent opinions and thoughts of the people and take those into consideration in making our decisions. Some members of the council are probably more influenced by that than others, particularly those on the council who may have further political aspirations. But even with, let's say, the more conservative of us, we naturally want our decisions to be satisfactory to as great a number of the people as possible. It all adds up in the end to, I believe, a sincere desire to serve the people of Berkeley to the best of the ability of each member of the council.

I should think that Mr. Phillips, being professional in this field, would take a more advanced point of view than perhaps many of the citizens of Berkeley would be familiar with, and that this might lead him into suggesting proposals that the city council would not at this time accept because of public opinion, and that this might lead to clashes between the city manager and the council.

All of that is very possible. And it's in cases of that sort, I would say, that the council is more apt to disapprove the recommendations of the city manager. He recognizes that and he recognizes why the council doesn't go along with him. He also recognizes, as does any wise administrator, that one sometimes has to
reach ones goal by a series of steps instead of by a single stride. There are seldom what you describe as "clashes" arising, although I admit that it is perfectly possible.

WKB: How can you reduce these clashes when they do arise?

CBH: I think it's largely the attitude and expression of opinion. Sometimes there are personality differences and occasionally some sharp words in the debate on the council, but I'm not conscious of any deep scars having arisen from them.

WKB: Do you get a lot of these things ironed out in study sessions?

CBH: Some of them. That's a good mechanism to use where members of the council are not fully informed of all the facts involved. Then we can sit down around the table -- true, it's a public meeting -- and talk about it without taking any definite action at the time, and that's always very, very helpful.

If you're sitting up there on the rostrum at a formal meeting you sometimes may take action too quickly. Now here again is a human trait. Some people want to make decisions quickly, get action immediately. I, being conservative, am more apt to want to wait a little bit, not too long, not to let it drag, but to let the matter rest for a while and think of it calmly and dispassionately for a few days or a week or two, if necessary. I've always found it important in this game to never be afraid to change your opinion. Some people find it extremely difficult once they have committed themselves to admit that they've been wrong.

WKB: I think it takes more confidence in your own opinions to be able to change them.

CBH: Yes, I think so. That puts it very well.

WKB: When Mr. Phillips suggests some sort of policies that may be advanced over at least what the council thinks the citizens of Berkeley would approve, does he go out then and try to influence them?

CBH: No, no.

WKB: He takes no role in public relations in trying to put across a policy he thinks would be good?
CBH: He is frequently asked to discuss problems facing the city with city groups or other organizations, but I wouldn't call him an advocate. Again, he tries to present the facts to the people.

WKB: Do you think he should be an advocate?

CBH: To the council, yes, but not the public. I think he should always be prepared to present the facts which have influenced his decision to the council and when asked by a responsible group of citizens, like a service club, to talk to them about the problem. I think he should respond to that, yes.

WKB: When he appears before a civic group do you think he should present the two arguments impartially or should he try to present his opinion as to what is the best policy with some fervor?

CBH: Well, I think he should present the facts, and if some of those facts are contrary to his final recommendation, I think the people ought to know those facts too, because often these things aren't just black or white.

WKB: I have some questions on what you think the role of the city council, the councilmen, should be. You can't call them "councilmen," though; you have some women on there.

CBH: No, "councilmen." Even the women insist on being called "councilmen." Mrs. Thomas is particularly adamant in that respect. In other words, she wants to be regarded as an individual, with no handicaps and no favors merely because she is a woman. I must say I share that point of view.

WKB: Do the individual councilmen present policies they would like to see the council pass on?

CBH: Oh, yes. Frequently they make suggestions of new things that in their judgment need to be done.

WKB: Do they suggest that their policy should be carried out, or do they suggest a study by the city manager?

CBH: Both. Generally the procedure is to refer these things to the city manager for study and report. Once in a while, if it's a simple thing and you see at once its merits and there's no
CBH: difference of opinion, we may act on it at that same meeting.

Sometimes questions are brought to the council in the form of letters from someone in the city. It's new to the council members, but the letters come in during the week and the city manager sees them. He may immediately ask one of his assistants to look into it, or he may do it himself, and by the time it gets to the council he's prepared to make a recommendation to us. So we may act immediately upon the proposal. We have on every agenda of the meetings a section of communications where those communications are either read at that time or they are more apt to have been mimeographed and distributed so that everyone would have a chance to look over the correspondence before the meeting. But out on the street and at other meetings surely people speak to individual councilmen, or they may call them up and appeal to them about a given matter.

WKB: Does this kind of informal communication with citizens take much of the time of the councilmen and yourself? I know this is part of your job but I wondered if it was a very substantial part.

CBH: Oh, I wouldn't think so, but certainly we try to respond.

WKB: I'd think it would be quite annoying if your phone were ringing all the time.

CBH: It seldom reaches that point.

WKB: I know the city council is divided many times on votes. Do they seem to divide into any recognizable factions? Are there conservative and liberal factions?

CBH: More or less.

WKB: On what basis do you think they divide?

CBH: By and large you can divide people into two groups.

WKB: Do they divide according to what groups they represent in Berkeley? Do they tend to represent either business group or University groups?

CBH: No, because the councilmen are all elected at large. Theoretically, at least, they are elected to serve the best interests of all of the people in Berkeley. By two groups I mean conservative and
CBH: liberal, whatever that is. And I would say that we conservatives are more apt to think of the cost of these things as well as of their merits, and sometimes are unwilling to go as rapidly or as far as some of the more liberal-minded people are. Some of us know that in our own personal lives we frequently have to make choices. And we believe the city has to also.

I am often inclined to go less rapidly and more cautiously than some would like to go. These things generally fall into the category of additional services, many of them good, I admit, like mental health, for example. That has been before the council for a long time. We set up a committee of citizens to make a study of the needs of this community in the field of mental health. They came back and recommended strongly a program that would get the city into quite a program of mental health. Some members of the council fully approved it. The more conservative, or the less liberal, if you prefer, recognizing the importance of these things, felt that we didn't want to commit the people of Berkeley to a mental health program that would involve treatment of mental illness any more than we would advocate socialized medicine. We think of mental illness as a disease, recognize it as such, but we don't treat people for other diseases at the expense of the people of Berkeley. So there's a difference of opinion there.

WKB: Was the difference on whether it was a function of the government to do this, or the expense of doing it?

CBH: Both, because it's been the history of America that mental health has been handled at the state level. True, there are many objections to this from my point of view. Too often cases of mental illness are permitted to go so far that the individual has to be committed to an institution, almost incarcerated. Then they try to treat that case under an abnormal environment, whereas if you begin early in the case, recognize it, treatment may then be applied in the home, in the schools, in the normal environment of the individual. To that extent it is sort of preventive
CBH: medicine. I like that. I believe in that.

WKB: It certainly is much cheaper, isn't it, than hospital care?

CBH: Oh, of course, and much more effective. From the standpoint of finance, if the state would reimburse the local governments, the total expense would be less in that way and, I agree, doubtless more effective. So as a beginning in this new development we increased our staff in the department of public health for education, for counseling, for early discovery of the cases, but leaving the actual treatment to practitioners. Unless you're ready to go into socialized medicine I see no reason why we should take one disease or a series of diseases, mental disease, and treat those, provide hospitals and clinics for the actual treatment of those, any more than we provide treatment in hospitals and doctors' treatments for other diseases. Perhaps we are coming to this, but if so it should be financed, I think, at the state or national level rather than local. There's a difference of opinion on that, if course.

WKB: Would there have been any difference in the cost to Berkeley? Isn't there a bill which provides state aid to the local community if they do set up facilities?

CBH: Yes, as I recall, about half, roughly. But we don't do that with tuberculosis, heart, cancer, and other diseases.

WKB: There are charities which handle some of those.

CBH: All right, there are charities which handle this, too, for those who cannot finance their own medical costs.

Another general field of service where there are differences of opinion in a body like the Berkeley city council is in recreation. Some people feel that while we need to provide more recreational facilities for the people of Berkeley, others feel that at least a part of the needs for recreation ought to be sought and developed by the individual or the individual family rather than at the expense of the taxpayer. We have the Tilden Parks nearby both for adults and for children. We have play-
CBH: grounds. We are trying to develop the greatest possible use of the facilities we now have. We are involved now in a bond issue to enlarge them. Some enthusiasts, shall I say, or what I call the more liberal people, would like to go much farther than we are proposing to go?

WKB: How? In providing more physical facilities or more supervision?

CBH: Both. We have a fine arrangement with the board of education under which the maximum use is being made of all recreational facilities both school and city-owned. Maybe filling the demand for additional facilities boils down to some appreciation or thinking of costs again.

WKB: I wondered if it was the cost that is the determining factor. I take it you prefer more limited services than many would like the city to engage in.

CBH: I'd rather say that there are some among us who see the need for far more services than I do. I think the city, like my own family, is entitled to and should have what it wants and can afford.

WKB: Is this because you don't think there is a substantial need as they seem to, or that the expense is greater than the city could carry?

CBH: Ultimately I think the latter because I don't think society is ever going to be able to afford to give to every member of it what every member wants, without limitation.

WKB: Do the councilmen who favor more services usually vote together?

CBH: Yes.

WKB: I know some of those are pretty close votes, five to four usually.

CBH: Yes. You see, we've got some new members of the council.

WKB: Mrs. May is a new member.

CBH: Yes, and Mr. Stone is a new member. I should say that the four more liberal people on the council are Mrs. May, Mr. Harris, Mr. Kent -- there's three.*

*August 1961. Now add to the three two more, Mr. Brown and Mr. Sweeney. These five now control the council and its action. [C.B. Hutchison]
WKB: Do they usually vote together on everything?
CBH: They're generally together.
Then the more conservative people are Mr. Richards, Mr. Beckley, Mrs. Thomas, Mr. Stone, and myself.
WKB: And that leaves Mr. DeBonis.
CBH: And I can't tell you which way he goes.
WKB: He's the middleman.
CBH: Yes. You can be certain of this: he is generally against any increase in taxes, but on the other hand he turns right around and votes for projects that will require more taxes.

Some of us carry this conservatism a bit into salaries of employees, and I, for one, find it very difficult to accept the apparent fact that we are in an era when salaries of public employees must be increased every year. I suppose that is due to the fact that I had never lived in such an era myself. Salary increases came rather slowly in my time, and rather rarely. But now we seem to be in a situation where everyone expects an increase in salary every year. Mr. DeBonis will vote for that, particularly for every employee except the very top. Then he turns around and votes against any increase in the tax rate.

WKB: It makes it rather hard to balance your budget.
CBH: Yes. As a matter of fact, up until the last year or so he always voted against the budget. I've never known him to vote for the budget in the first four years I've been mayor. But the rest of the council knows that we have to have a budget, so we vote for a budget every year.

WKB: Who speaks most often for these two groups?
CBH: Mr. DeBonis speaks more often than anyone on the council on anything and everything.
WKB: Yes. Now, he doesn't represent either group.
CBH: In general he's against things. He seldom has a positive approach, at least one which will command support.

I would say that Mr. Harris probably speaks more often for
the liberal opinion. Mr. Harris has a quick mind, a legal mind, and he's a very good councilman. Mr. Kent participates too. I don't mean to imply that he doesn't.

There's no one spokesman for the conservative group. There are different degrees of conservatism and liberalism among the council on many matters. I would add this so far as political aspects are concerned: The group that I have spoken of, and that included Mr. Cohelan for the four years he was on the council, were more apt to be thinking and acting in terms of political maneuvers than did what you've termed the conservative group.

WKB: You mean they had more aspirations for some other political office?

CBH: They are apt to be more partisan in their point of view. Mr. Kent apparently believes very definitely that partisan politics should control city government.

WKB: Would you designate the more liberal group as the Democrats? I know Mr. Cohelan is a Democrat.

CBH: They all are.

WKB: Is the other side mostly Republicans?

CBH: I think so.

WKB: So it is a partisan division among liberal and conservative lines, even taking away the party designation.

CBH: Yes, I agree to that statement.

WKB: I did want to ask you if the councilmen see their role as representing the population of Berkeley, or do they see their role as being selected to use their own best thinking?

CBH: I would say that there is a difference in that point of view on the council. I want to be fair with this. I was about to say those of us who claim to be members of the Republican party believe — and I'm judging this by their statements — that they are striving to represent the people of Berkeley, regardless of the political point of view of the people of Berkeley. There are others who think they have been elected to represent certain groups in the city, minority groups.
Some of us do not recognize, when it comes to votes on the council, that we have either a majority group or a minority group in Berkeley. The city doesn't in its employment practices. It takes the most competent person. Most new positions are filled after an examination. Anyone can apply and take the examination. Others would feel that since the minority races, particularly Negroes, represent 20 to 25 percent of the population, there ought to be, on the average, 20 to 25 per cent of those people in everything in the city, including the council, the school board, the teachers, the city employees, boards and commissions.

Those people would favor a ward system of election, I should think, rather than electing at large.

Yes, I expect that's right. But the voters of Berkeley have never favored that.

I take it you wouldn't favor that either.

No.

Well, I want to make this clear. I just can't claim to be a student of politics. I'm not too well informed, and certainly not experienced, in this field of human activity. It's been something I have never interested myself in. And I assure you and anyone else that if we had a partisan government even in Berkeley, no one would ever have prevailed upon me to have a part in it. So I'm not interested and I would be incompetent in any partisan political office.

Advisory Commissions

What is the role of the various commissions in Berkeley?

Their job is to study matters under their jurisdiction and advise the council. None of them have any power or authority.

I know they are purely advisory, at least they are so designated, but how far does the council go in accepting their recommendations?
CBH: Pretty far. Not always. Take the planning commission with its zoning committee which handles matters of zoning and handles appeals for variances from some zoning regulation. The individual thinks that he has a particular problem, and the exact interpretation of the law prevents him from doing something that he would like to do. He presents his case to the board of adjustments and they act on it one way or another. The individual then has the right to appeal to the council. We sometimes sustain the appeal, or we may deny the appeal. At least he has a hearing before the council.

Personally, I find it difficult to go counter to the advice of any commission. They are experienced, they study a problem thoroughly, and thus their judgment is often better than that of the council. But sometimes the commission finds that under the law, as the ordinance is drawn, they are forced to deny a request which they actually believe should be granted. They have no power to grant it. They may deny it, and then when it comes before the council these matters are brought out and the council has the authority to take that into consideration.

WKB: Do they recommend that you take into consideration other factors in the ordinances?

CBH: Well, they tell us the story in such a way that we see it.

The welfare commission, the recreation commission, the new art commission, they are all advisory to the council. They have no authority, except on these variances. The board of adjustments informs the council when they have taken action. Unless the individual affected questions it and appeals to the council, that action stands. They have authority to that extent, at least. But they are all subject to an appeal by the individual or individuals concerned, and certainly the council has power to initiate changes in the ordinance, too. I mean changing planning and zoning and all that sort of thing.

WKB: There was a criticism recently by the League of Women Voters of the library trustees, I believe, that they had been too
WKB: conservative in developing the library facilities in Berkeley.

CBH: Yes, they recommended that the library's management be placed under the city manager and that the library commission serve only in an advisory capacity. Now, there are differences of opinion among cities in the United States, and maybe even among librarians.

The way we operate here, the board of library trustees governs the library. Members of the board are appointed by the council, and serve at the pleasure of the council. The council also appoints one of its own members to membership on the library board. The relationship of the librarian to the board is much the same relationship as that of the city manager to the city council. It too is a policy-making board and governs library procedure. A few years ago the League of Women Voters proposed that that power be centered in the council and in the city manager, that the library become a department of the city government. The librarian would be under the administrative control of the city manager, in the same position as the head of another department in the city government.

WKB: I take it this was due to dissatisfaction with the way the policies had been going.

CBH: A part of it. As a matter of fact, by the time the report came out most of the suggestions for improvement that they made had already been corrected by the new librarian.

WKB: That's right, yes. I read in the report that it implied no criticism of the new librarian who had already made many changes.

CBH: That's right. And I suppose it is, well, not altogether strange that Miss Kearney, who had been here a long time, in the last few years of her administration perhaps had not been so eager for changes as she might have been at one time and maybe let the need for some accumulate, let's say. But a fresh point of view brought in by a new librarian corrected most of them, except the basic thing. He is very much opposed to the league's proposal that the library be placed under the jurisdiction of the city manager. I
CBH: think the library board itself is opposed to that. Indeed, I think the council is. There again is a case where -- it hasn't formally come before the council -- but I happen to know that the city manager believes in the League of Women Voters' point of view. But I'm quite sure the council doesn't.

WK3: So this will be one of those clashes.

CBH: Well, let's say again a difference of opinion or judgment.

WK3: I had heard the criticism that it was felt that the board of library trustees had not requested as many services for Berkeley as the council would have been happy to grant if they had requested them.

CBH: Here again the old bugaboo of conservatism versus liberalism. I fear it comes in. Prior to 1955 or 1956 the library board was quite conservative. The council itself was conservative and it is not strange that its commissions and boards would tend in the same direction. Only within the last two or three years have we been able to make improvement in salaries among the library staff. They were below comparable salaries paid to other city employees. Now they tell me that salaries are on a level with those paid other city employees.

In general I would say that the mechanism we now have of an independent library board appointed by the council creates an environment in which the library can grow and prosper. In some cities if under the jurisdiction of the council there would be grave danger of political influence creeping in. Of course, the council-city manager form of government would be a protection there, too. I must admit that. But I see no urgent reason to make a change, myself. And I'm not interested in change just for change's sake.

WK3: How are commission members selected?

CBH: Currently we have a nominating committee. Prior to my administration they were appointed by the council without much investigation. I'm told that when there was a vacancy in a commission the council
CBH: would meet and somebody would say, "Tom Jones would make a good member." And another one would say, "Who's Tom Jones?" The first man would describe Tom Jones. "Yes, yes, that sounds all right. Any objections? All right, we'll appoint Tom Jones."

When I came in and found that sort of thing going on one of the first things I did was to get the council to authorize me to appoint a nominating committee of three who sought out qualified people. They kept a current list and got suggestions from all sorts of people and all sorts of organizations, plus individual suggestions from members of the council. They weigh these proposals rather carefully and come up with a nomination. They can only nominate, and then the council appoints. That's the way it works now. I'm told by people who have been on the council much longer than I have that by this mechanism they think there has been improvement in the commission personnel in the city.

WK3: This should make your commissions more useful as time goes on. Which commissions do you feel have been the most useful in suggesting new policies for the council to act on?

CBH: Well, they are all good. Undoubtedly the hardest working commission is the planning commission. They've got an enormous job and they work at it diligently and put in long hours and many meetings. The recreation commission has done an excellent job. They don't have to meet quite as often. Its work isn't quite as strenuous. The new civic art commission is just getting started but gives great promise. The welfare commission has done pretty well. They've recently made recommendations to us for revamping that commission and reorganizing it and broadening its interests, etc. Maybe they have leaned too heavily on Miss Carpenter, who has been the social welfare worker of the city. She has just retired after thirty-odd years of work -- a very able individual. She's done maybe a lot of things that the commission just sort of agreed were fine, all right, and supported her, but perhaps the commissions itself hasn't been as creative as it might have
been. I think these commissions ought to be creative as well --

WKB: That's right. They ought to come up with new ideas as well as following the head of the department.

C3H: Yes, I believe in that. Now, I've stimulated that to a point where one report came to us the other day and it characterized Berkeley as being very creative but slow in action, which was chiding the council, you see.

WKB: In other words, the commissions have good ideas now, but the council is slow to act on them.

C3H: Yes. There again, you see, you get back to this conservatism versus liberalism. There are a lot of things in this world that would be nice for society to have, I admit that. But what I think would be good for society or what it needs others may not agree. There are diverse points of view to be taken into consideration and to be harmonized. This takes time and often much patience. Things move more slowly than some could wish.

Civic Groups and Local Newspapers

WKB: What civic groups are influential in government? I know the League of Women Voters comments on things.

C3H: I would say they are more active than most any other organization that I know of, except the various-named partisan groups that emerge from time to time among the liberals.

WKB: What about the chamber of commerce? Don't they take an active interest?

C3H: Not too much, not as much as I wish they would. The League of Women Voters has a member of their organization at every council meeting and she reports back to them. They write reports and make suggestions to the council, but their representative never speaks at the council meeting.

WKB: No, I think they're entirely non-partisan, or they try to be, on controversial issues, until they make their report, at least.
CBH: Yes, well, they're non-partisan, I assume.

WKB: Politically they are non-partisan. I know they do take a stand on certain issues, though, as to how the city should be arranged.

CBH: Surely, and they don't hesitate to tell us. Now there is a Negro women's club organization. Mrs. Margaret Nottage is their representative. She is there at practically every meeting of the council.

WKB: This isn't the NAACP?

CBH: No, the NAACP doesn't send a representative regularly to council meetings.

WKB: Is it a local organization?

CBH: No, it's more than local, but she represents the local section of it.

The service clubs take an interest, but they don't send representatives to meetings of the council and certainly are not active politically. We get suggestions from the chamber of commerce and from various people.

WKB: Wasn't it an organization of Shattuck Avenue merchants that objected to some plans for beautification of the middle of Shattuck?

CBH: That's right. Now we've got a group down here of north Shattuck merchants that is objecting to the white lines that were drawn on the pavements since we pulled up the Key System tracks. They are conducting a campaign to have diagonal parking installed there. And the local manufacturers' association has sometimes interested itself in zoning problems in West Berkeley quite effectively.

Then there is a series of neighborhood improvement associations over the town. One is in the Claremont area; two or three are north of the campus. They've interested themselves in the improvement on LaLoma and Rose. I like to see these neighborhood organizations, business organizations, other groups, the League of Women Voters, the PTAs, take an interest in civic matters and express their points of view to the council. It's always helpful.
CBH: Very often some very sound ideas come up. The council certainly doesn't have the corner on all good ideas, by any means. There's an organization down around Grove Street that a few years ago was formed because, as they said, their own children were causing some disturbance down there. The parents and friends and groups got together and formed an organization to stimulate methods that would help solve the problem. It was very helpful.

WKB: How influential do you think the Berkeley Gazette is in civic matters?

CBH: Not as influential as I wish it were. A local paper in a city like Berkeley could be a great strength for good. I'm afraid that in the last ten years or so the Gazette hasn't had any very definite editorial policies as far as the city has been concerned. It's been strictly a business enterprise and dependent upon its subscribers and advertisers and therefore hasn't taken a very definite stand-point one way or the other on anything.

WKB: You think it has fallen down on playing its role.

CBH: I think it has not taken full advantage of its opportunity for community leadership, but I would hasten to add that it's been my observation that that same thing has happened to most newspapers. Maybe it's because of the competition with other mass media of communication such as radio and television.

WKB: Maybe not enough people subscribe to the Gazette, actually. They compete, of course, with the Oakland and San Francisco papers.

CBH: I'm sure the Gazette people would say they would like to have more subscribers, but I'm inclined to think they would get more subscribers if they took a more definite interest in leadership in things to advance the welfare of Berkeley. You take some of their reporting on this school bond issue. The headlines they had tended to emphasize in the public mind that a lot of property was going to be taken off the tax rolls. Maybe it shouldn't; I mean maybe they were right, but they created the impression they were against progress. However, I think I have seen some evidence in
recent months toward recognition by the Gazette of its civic responsibilities. If I am right, this will be good for Berkeley.

WKB: You've seen this new little Berkeley Review?

CBH: Yes.

WKB: What do you think will be the effect of this?

CBH: The editor, owner, Mr. Orr Kelly is his name. They report the council's action extremely well -- succinct, terse, but accurate. They seem to be in favor of promoting more progress in Berkeley than has heretofore been promoted by the Berkeley Gazette.

CBH: Yes. From a financial point of view, I don't know if it will go or not. But I believe in competition, myself, and I'd like to see another local paper here. It might do good.*

Berkeley Problems

WKB: What do you feel are the most pressing issues facing Berkeley now?

CBH: Of course the big problem that affects Berkeley is one that affects this whole area. I think public transportation is the most crying need in Berkeley today, but Berkeley can't do anything about it by itself. It's got to come through regional attack, area procedures.

We have made some progress here, as you well know. We have formed a rapid transit district, engineering plans are being developed, and the thing is going along very well. Ultimately, perhaps by 1961 or 1962, they plan to present the matter of financing it to the people. Whether it will be approved I don't know yet. Maybe the automobile congestion hasn't gotten so acute yet but what people will still vote against the increased taxes that rapid transit will cost.

*The Berkeley Review ceased publication in February 1962. [Ed.]
CBH: Personally, I'm convinced that urban mass transportation has gotten beyond the capacity for free enterprise to handle, and I'm a strong believer in free enterprise, but I believe this is another field of activity where people have got to cooperate. It's another expression of socialism, if you will, but I think it can be handled only in that way.

The automobile has paid for all of the highway system in California except the first original $10,000,000 bond issue to get it started. Thereafter we've built the roads with gasoline taxes, all of this. All right. What's wrong with now saying that we regard this transportation problem as a whole, and utilize some of the gas tax, if you will, to subsidize, help build the rapid transit rather than paying for it out of an ad valorem tax. The time has come to move people instead of automobiles. The average passenger load going across the San Francisco-Oakland Bridge, I'm told, is 1.6 persons, and they occupy a space there that 30 or 40 people could be gotten into in a train and moved much more rapidly than you possibly could move in the automobile. Then you don't have to have room to park that train when you reach the city.

In Berkeley regional transportation is a specific need. Let me make a general observation. I'm disposed to think that the most severe problem that faces Berkeley city government, and municipal government generally, is municipal finance. The federal government takes the cream of taxes in the whole United States. The states come along next. The counties come along next.

WKB: They get the easy taxes, don't they?

CBH: Yes. And the city is the one level of government which is closest to the people. It is struggling with these various local and pressing problems, all the things we've been talking about today when we were discussing liberalism versus conservatism. A lot of the things that the liberals want and even some of us conservatives would like to have more of, bring you right up against this question of municipal finance.
Aside from the sales tax, the small amount derived from the business tax, professional taxes, fines, penalties etc., the bulk of our taxes fall on the householder, the homeowner, the property tax. A lot of people in Berkeley think of Berkeley as a residential area, as it is. They'd like to keep it so. I'm one who believes that we must do everything we can to create a good business climate in order that we may attract and maintain certain types of manufacturing and business in order to strengthen our tax base.

This house of ours and the land around is taxed pretty high, most people would say, already. But it is not taxed to an extent that it might be. So you can say that no strictly residential area ever pays its own way. It has to depend on other income, sales tax, manufacturing tax, business tax, and these other things, and the real estate tax on business facilities, buildings and machinery, etc., to pay for the services it demands. So we need to be always concerned with a sound and equitable tax base here.

VKB: Do you think Berkeley now has an inadequate tax base for maintaining services?

CBH: No.

VKB: You feel that people have reached the limit of their willingness to pay on property taxes?

CBH: Oh, I wouldn't say they have reached the limit. I don't know what the limit is, but they are much concerned. You see, there are many people in Berkeley who are retired, who live on fixed incomes. And with inflation coming and taxes and everything increasing, they are worried. It's a problem to these people. The council has the power to increase property taxes any time. But in my judgment that doesn't necessarily give them the right to do it. I think they ought to be conscious of this, and I'm sure the council is. I see very little evidence any place that members of the council aren't concerned with the tax rate.

VKB: Do you feel that the people of Berkeley would prefer higher taxes and more services, or lower taxes and less services?
CBH: I think most people would like to have more services and less taxes.

WKB: I know, I know, but let's face the facts.

CBH: Berkeley is a progressive city. It likes to move forward. The great majority of the people do. But I think some of us try never to forget that that ought to be done in a reasonable manner, and that most of us just can't have everything we'd like to have.

WKB: But most of us make a decision as to what we want and what we are willing to pay for it. Is it your opinion that people of Berkeley would rather not pay for -- if they have more services, they are going to have to pay a higher tax rate. How can you go about assessing what they are willing to pay for it?

CBH: That's a good question, and people vary in their appraisal of that opinion. Some people maintain that people are ready and willing to pay for more services. I can only judge by such things as the failure of the last two school bonds. Surely the people of Berkeley believe in schools. I would say that there are few cities in the United States that believe more strongly in education than the city of Berkeley does.

WKB: Do you think physical improvements should be done on a pay-as-you-go basis?

CBH: Yes, that's the ideal way, but the difficulty there is that with a pay-as-you-go basis these needs have a way of accumulating. You don't see the need for street improvement uniformly every year. You suddenly get to a position where something radical has to be done, and then the amount of money required is too much to raise by taxation that year. I don't think it's going to be ever possible to maintain a city completely on a pay-as-you-go basis.

Now, Berkeley has no outstanding bonds today. It's out of debt as a city. Yet, to get out of debt it has allowed these accumulating deficits to take place, some of which we saw coming and might have met. I think recreation is one and I think schools is another -- both could have been anticipated. There was
CBH: sufficient evidence. But again it would have taken an increase in the tax rate which people always object to, by and large. Well, I shouldn't say "always," because you've just asked the question whether or not the people of Berkeley aren't willing to pay higher taxes and I think by and large the great majority are.

WKB: Don't you think inter-racial problems are going to be more and more of a problem in Berkeley? It seems like the population of minority races is increasing quite a bit.

CBH: That's a controversial thing and one in which I have some rather strong points of view. I don't think there is nearly as much racial tension in this city of ours as some people would have us believe. The people who are stirring it up are in the small minority. In talking with some of my Negro friends I have in West Berkeley I find very few who think there is an important racial tension here. The same thing is true in the opinion of most of my white friends. But there is a small group -- was it Life that called them "white Negroes" a few weeks ago? -- plus what I call the "beatnik" element among the whites, particularly the youth of the city and the student body of the University, plus what I call the intelligentsia element in the University faculty, plus some few other people in the city at large, who are the ones that are determined to have racial tension here, just keep things stirred up.

WKB: So they're talking about a problem that doesn't exist until they make it exist?

CBH: Until they make it critical through exaggeration. That's my frank judgment of it.

WKB: Then you think that there will not necessarily be racial problems because of an increase in the Negro population?

CBH: Not if we approach these things with good will and harmony. My idea of a democracy is one in which the individual can attain the position in life that his own innate ability entitles him to, if he makes the most of his opportunities. I want to keep the door of opportunity open and do everything that I can to encourage all
CBH: to use it. There are some cases among the minority races that the door of opportunity has not been kept open. I grant that and I regret that. But the individual has got to do something himself to demonstrate that he is able to make his own honest contributions to society, that he is ready, willing, and able to accept the responsibility of citizenship. If he objects to second-class citizenship, as he properly should, he must accept and discharge the responsibilities of first-class citizenship.

WKB: Do you think Berkeley does offer that opportunity?

CBH: I think Berkeley does very well toward providing that opportunity.

WKB: I think Negroes are excluded from some neighborhoods.

CBH: Why?

WKB: Well, they aren't in the neighborhoods, so they must be excluded. Now, part of that is financial, I know.

CBH: There's a Negro family right down here on Santa Barbara. And there's another one over here on San Luis Road. There's no regulation that forbids it. If this house was for sale and a Negro wanted to buy it I don't know of any regulation that would prevent him from doing so.

WKB: I think that's what people object to: if there is something that excludes a person because of his race and not because of other factors, such as financial ones.

CBH: I think that is too much in the minds of people, rather than in reality.

WKB: You feel that Berkeley is not nearly as restrictive in that way as people assume.

CBH: Yes. I believe there is less restriction than some people assume.
Address of the President of the Association of Land-Grant Colleges and Universities, Delivered at the Fifty-eighth Annual Convention Chicago, Illinois, October 24-26, 1944

THE LIBERAL EDUCATION OF THE "INDUSTRIAL CLASSES"

C. B. Hutchison
Dean, College of Agriculture
University of California

This address has been prepared for distribution in response to the requests of many members of this Association. If it may contribute in some small measure to improvements in the educational program of the land-grant colleges and universities, I shall indeed be gratified.

Berkeley, California
November 1, 1944

C. B. Hutchison
THE LIBERAL EDUCATION OF THE "INDUSTRIAL CLASSES"

C. B. Hutchison
Dean, College of Agriculture
University of California

This Association meets today at a time of great moment to it and to its member institutions. At each of our last two annual meetings we were primarily concerned with how we, as individuals, and the educational institutions we represent, might make the most effective contributions to the early and successful termination of the war. We had pledged our individual efforts and our total institutional resources of manpower and physical facilities, to the nation and had asked that they be used most effectively to that end. At the same time we were deeply concerned with how we might preserve the most essential elements of our educational structure for the day when victory would come and for the time when we would be called upon to help in restoring balance to a war-torn world, and to aid in the building and maintenance of a just and enduring peace.

As we meet today, victory to our arms is approaching; certainly it is much nearer than most of us had even dared hope a year ago, and the problems of re-adjustments and rehabilitation in the postwar period are emerging to demand our immediate attention. We are beginning to see, at least in broad outline, some of the problems we shall face in the years ahead, both at home and abroad, and we are even beginning to form some conception of their magnitude and complexity. Accordingly, your Program Committee has proposed that in this Convention we attempt to visualize some of the problems which lie ahead and, if possible, define more clearly the contributions which education can make to their solution. In this, we shall be especially concerned, of course, with the responsibilities and opportunities of the institutions which comprise the membership of this Association and the challenge which the postwar world will make of them.

The Land-Grant Colleges and Universities of America have had a distinguished career. Every member of this Association may well take pride in their accomplishments. For more than three-quarters of a century they have made important contributions in the field of education and through education to the national welfare. Charged with the special mission of advancing the practical and liberal education of the industrial classes, supported in major part by public funds, maintaining flexibility in techniques to meet the changes of time and conditions, they have provided perhaps the most democratic form of educational procedure the world has seen. They have made education in the fields which they encompass generally available to all citizens. They, more than any other group of institutions in the land, have kept the door of educational opportunity open to all.

But we are not so much concerned today with the past accomplishments of these institutions, gratifying though they may be, as we are with what they will be called upon to do in the years which lie ahead, and how well they are prepared to meet that responsibility. We are not so much concerned today with the circumstances attending their creation or with the educational objectives and goals toward which they originally directed their efforts, as we are with the circumstances now surrounding them and the educational responsibilities they are now called upon to assume, in a much changed world. And we are not so much concerned with how well these colleges have succeeded in meeting their obligations to the people who have supported them in the past, as with how they may best contribute to the educational needs in the foreseeable future, and continue to merit the confidence and support of those they serve. In short, we are concerned today with
what these institutions ought to be and ought to do now, and even more with what they ought to be and do in the immediate years ahead.

Certainly the needs for practical education of the industrial classes differ today, when one-fifth of our population can raise all the agricultural products needed for the whole nation, from the needs for practical education of these groups a century ago when the efforts of at least half of the population were required for that purpose. And even more certainly has the need for liberal education among the industrial classes, including those who live on the land, been made increasingly important and urgent during the last three decades, by the tremendous impact of scientific and technological advancements upon our industrial civilization, accompanied by the inevitable confusions and dislocations through the ravages of war.

A modern, alert and farseeing Land-Grant College or University faculty, cognizant of the kind of world we shall have after this war, will recognize its responsibility in resident instruction of offering an educational experience which will aid its students in developing four essential qualities:

First: Professional or technical competence of the highest order consistent with the innate capacity of the individuals;

Second: A broad understanding of the physical, biological, and social world in which they live and of its evolution, growth and development;

Third: Cool, broad, honest but critical judgment as responsible, self-disciplined citizens in a complex democracy;

Fourth: A vigorous, abiding faith in democracy, a willingness to work for it ceaselessly, and a fixed determination to do one's full share in making it succeed.

Over the years most of these colleges have done and are doing in their professional curricula a reasonably good job in the first field. Some do a fair job in the second, though none would deny, I think, that improvement could be made. Most have laid little emphasis upon the third objective, and all have taken the fourth more or less for granted, as if democracy were self-perpetuating rather than something which has to be re-won through self-discipline by each generation for itself.

When the war is over we shall have to be wise enough to maintain full employment, with jobs for all who are physically and mentally able to work. This means that we must have fully 15,000,000 more persons employed than in the previous peacetime high period. To achieve this, every community in America must seek out and redeem employment opportunities. There must be new industries, new business enterprises, new services. There must be greatly expanded world trade, international currency stabilization, with more cooperation between nations for the advancement of the welfare of all. At home we shall need new types of agricultural programs, flexible enough in form and procedure to allow for adaptation to changing conditions. We shall need more soil conservation, better plants and animals, better preservation of perishable foods and better means of distribution. We shall need further revision of taxation and tariff policies, adjustments in price and production policies, better provisions for nutrition, health and education, and many other things. These things will not come automatically; they will come only through study, effort, faith and determination. They will come if the people generally understand the facts and issues involved and if they are able to reach wide agreement on intelligent action.
In the accomplishment of these things education has a grave responsibility to discharge, for through education only can come the understanding that is essential to their attainment. If we are to maintain our system of freedom of the individual in the years ahead, there must be more understanding on the part of all. There must be intelligent, sympathetic, tolerant understanding in every segment of our society and a realization that the welfare of each segment depends, in the ultimate, upon the welfare of all.

In the development of such understanding in the years ahead, the Land-Grant Colleges and Universities have an especial responsibility. More than any other group of institutions of higher learning in America, these institutions are "of the people and for the people." Through their facilities for research and their dedication to the discovery of the truth, they are particularly well-equipped to study problems of broad public interest in their several fields of competence. Through their extension services, if they will only use these agencies for educational purposes, and differentiate between education and propaganda, they have the most effective means yet devised for bringing the results of research to the people and teaching them to make use of that knowledge both as individuals and by groups, in meeting the problems of the day.

But leadership in the promotion of this broad and tolerant understanding will not come to these Land-Grant institutions, if in their resident instruction they are content longer merely to train technicians and to develop specialists. Specialization is the easy road in the intellectual journey of life. That is why so many follow it. But it is a narrow trail through walled-in ravines, with the view restricted to matters of immediate concern and frequently merely to utilitarian purpose. Specialization contributes to the development of a stratified and compartmentalized society which, more than any other single factor, is making it difficult for democracy to succeed. Most specialists - most technical graduates - though scientific in their own fields, are often uninformed, frequently dogmatic and sometimes even biased or prejudiced in other fields. It is not enough that a man be able to build a Golden Gate Bridge, he must be a responsible citizen as well. It is not enough that one be a competent producer of food and fiber - a first-class husbandman of the good earth; it is not enough that one understand the intricate mechanism of soil and plant relations upon which crop production depends; it is not enough that one know how to apply the modern techniques of genetics to the improvement of plants and animals. None of these abilities, important as they are to the welfare of mankind, are sufficient unto themselves. They must be accompanied by other qualities essential to responsible citizenship, and unless the Land-Grant Colleges provide opportunity for their students to develop these essential qualities they will fall short of the goal envisaged in their original charter - the liberal as well as the practical education of the industrial classes; they will fall short of providing the urgent educational experiences demanded of our time.

The outstanding characteristic of man as a human animal is the fact that his actions and behavior are accompanied by ideas; that is to say, he exercises judgment, be it good or bad. Man not only lives as do other animals, but he has some notion of what he is doing and why he is carrying on as he does. One cannot live at the human level unless there are ideas which illumine and clarify one's living. This means that some understanding of his world, his society and himself, is called for beyond what may be needed merely for economic or practical efficiency. Anyone can learn to use an automobile or a radio without any understanding of theoretical mechanics and electronics. But in a democracy it is essential that some theoretical understanding of fundamental principles, purposes and ideals with respect to our human relations - economic, political and moral - be the possession of every citizen. One wouldn't need this, of course, or indeed want it, in a society where the majority are expected to do just what they are told, without understanding what they are doing and without being persuaded of the essential soundness of the plans and purposes they are carrying out. But a society of free men cannot survive without it.
It is for these reasons that graduates of our agricultural, engineering, and home economics curricula need to be more than good technicians - more than competent, skilled, professional men and women. They need to be educated individuals capable of thinking and acting intelligently as citizens in a free society. They need to be informed - intelligently informed, on national and international matters as well as upon the affairs which concern their own immediate community and state; above all they need to be capable of exercising cool, deliberate, and critical judgment in dealing with these matters.

And, may I say in passing, that in no group of graduates of Land-Grant Colleges is the possession of these essential qualities of an educated man more urgently needed than among those who return to the country to live and to whom the state and nation look for leadership in agricultural and rural affairs. What colleges and universities of the land are so well-prepared as these land-Grant institutions to provide the broad educational experience necessary for the development of intelligent rural thinking and leadership? This group of students, above all others, should have special consideration in our plans to liberalize curricula, for upon their thinking and action as rural leaders in the years to come will depend much that the people will do in agriculture. Too often in the past these have been the very students who have been encouraged - sometimes required - to crowd their programs with technical courses, encyclopedic in scope and content, vocational in nature and purpose, in our misguided desire to make good farmers of them. Can we not safely leave to their own resourcefulness the acquisition from library, radio or the extension specialist, of some of the information we try to give them in such courses? Likely as not a few years hence, some clever young investigator who has been encouraged to be curious and trained to think, will show that much of it isn’t true anyway.

Some ingredients of a liberal education, I believe then, are indispensable in the training of all citizens of a democracy whatever their profession or occupation may be. That part of one’s education ought to begin in the schools and colleges, proceed along with professional and technical education through college and university, and be continued through life. It will not only be helpful to him in the conduct and understanding of human relations and in the discharge of his responsibilities as a citizen, but it will add to the richness of his living. As one is acquiring training and educational experience with which to earn a living, he needs also to prepare himself to enjoy the living he will have to earn.

How are we to provide in our already crowded curricula the educational opportunity for the development of these essential qualities for citizenship and for good living? I shall leave to Dean Hammond who is to speak to us this afternoon on the subject of liberalizing technical curricula, the responsibility of suggesting how this may be done in engineering education, and direct your attention to some things which I feel reasonably certain can be done in our agricultural and home economics program.

Agriculture: A liberal education might be defined in various terms; unquestionably it may be acquired in different ways. To me, a liberal education implies a trained and disciplined mind; the ability to read, to listen, to think, to acquire ideas and to possess and express them. Its aim can best be defined, I think, in terms of the cultivation of intellectual interests and disciplined habits of thought rather than in terms of information acquired or the variety of subjects covered. It is a mistake to assume that the persons who are most widely and liberally educated are those who have taken the most widely-divergent college courses. On the contrary, such persons are those whose education did not stop with the attainment of a degree. Most subject matter is inevitably forgotten; disciplined habits of thought and feeling persist and grow.
I should maintain that an agricultural student would have the elements of a liberal education if he had some knowledge and understanding of the inorganic world and how it has come to be, some knowledge and understanding of the organic world and its evolution, and some knowledge and understanding of the human world and how it has developed. This understanding certainly can be had from studies in the natural sciences, the social sciences and the humanities, if we will but organize our curricula and develop our courses of instruction to make effective use of the types of intellectual activity afforded by each of these three broad terrains of knowledge and their relations to agriculture and rural life.

In most of our agricultural curricula we do a pretty good job of making use of the disciplines of the natural sciences and of relating them to the special agricultural fields, such as agronomy, animal husbandry, horticulture, soil science and the like. It is in this area of intellectual activity that the ideal of complete objectivity, in the scrutiny and testing of evidence, the verification of hypotheses, the employment of exact, mathematical procedures, finds its fullest scope. Here the student has at his elbow the means of checking his logic by rigorous experimental test; here he has an experience in disciplined thinking which cannot fail to be helpful when he moves into other areas of intellectual activity where such checks on his logic are less well developed, or are entirely lacking.

In some agricultural curricula substantial use is already being made of the social sciences, but in others, perhaps the majority, that use is still inadequate. The complexity of modern civilization demands that every agricultural student have some understanding of man's economic, political and social institutions, the interplay of the factors which have led and which still lead to their change and historical development, and the problems concerning the organization of human society. He should not fail to make at least a beginning in this area of intellectual activity in his undergraduate days.

Few agricultural curricula afford any opportunity whatever for exploration or even an introductory insight into the fields of the humanities, or for an understanding and appreciation of the great literary, artistic, and philosophical expressions of human experience and reflective appraisal of their meaning and value. And where such opportunity is afforded by electives in our curricula, too few agricultural students are encouraged by their advisors and counsellors to set their plows into the soil of these fields. The colleges, of course, are not entirely to blame for this shortcoming. The development of an appreciation of great literature and artistic values has its seeding stage long before these youngsters reach the college level. Furthermore, many students of agriculture, engineering and possibly of home economics, hesitate to enter this area and too few do so on their own accord. Many of them can be interested, however, with the guidance and stimulation of a master teacher. To delegate this responsibility to novices in the form of graduate assistants in beginning courses, as is so often the case, is to doom the venture to failure and increase the student's antipathy rather than to inculcate the desire to dip deeper and deeper into the world's storehouse of esthetic and literary values.

One difficulty which students in agriculture face, is the traditional reluctance of most university departments to make their offerings available to the amateur. Too often throughout the university, courses are designed and offered primarily for students majoring in single or closely-related fields. The specialist tends to underestimate the value of survey courses to the student who expects to go no further in his field, but who would like some understanding of it for the purposes of a general education, or to one who wishes at the moment to lay the beginnings for later reading and study on his own initiative. Perhaps the same criticism may be leveled at many agricultural departments for I often encounter stubborn resistance when I try to induce some of my colleagues to offer
broad introductory courses in their fields for students in some other college of the university, without requiring a long list of prerequisites for the privilege of sitting at their feet.

Certainly a broad and philosophical consideration of some of the leading agricultural industries of the nation, a course in comparative agriculture, if you will, would afford real educational and cultural values in enabling students in other schools and colleges to understand better the role which agriculture plays in our national life. And I would see no excuse for insisting that such a course be preceded by a series of prerequisites in order to provide a proper background.

I wonder if we may not sometimes think we are making some of our courses in agriculture more respectable, even for our own students, by setting up as pre-lim. prerequisites to them, a plethora of courses in the older and more exact sciences, to some of which the student can find little direct relation? I am convinced in my own College, at least, that the careful overhauling of our courses and curricula, which we are presently making in preparation for the postwar period, will reveal ways and means by which we can reduce the number of units in some of our course sequences, and thereby release time for the student to broaden and improve his educational opportunities and experiences through some exploration into other fields of human knowledge than those we offer ourselves. This will, of course, need to be accompanied by some improvements in our advisory and counselling system, else we may soon slip back again into the position from which we are presently attempting to advance. It is unfortunate that it has taken a war to bring about these adjustments. University courses really ought to be overhauled more frequently than every twenty-five years!

Home Economics: In the field of home economics, no less than in agriculture, the Land-Grant Colleges and Universities will find it possible to effect a satisfactory balance between technical and liberal education. Home economics education in the United States has developed largely through the assistance and inspiration of the support given it in these institutions. It is largely their own product. They have made it what it is. The cooking schools and domestic-science classes fostered in Boston and elsewhere in the latter part of the last century and the first decade of this century served a good purpose, but could never have developed into the scientific and far-reaching home economics movement of today if the Land-Grant Colleges had not at the same time begun the first real effort at education for the home on the highest plane.

These institutions gave a kindly welcome to the women who began the difficult task of finding a scholarly basis for home economics. The cooking classes became experimental food-study classes only because there were also at hand chemistry, physics and bacteriology courses open to their students. The science of human nutrition was prodded to rapid development because Home Economics students and teachers asked pointed questions about the influence of food on health and because in many cases they began researches to answer these questions for themselves.

The sewing classes began to add textile tests and analyses and costume design because departments of art and science were nearby to give their students the bases for these additions. Family economics courses and research developed inevitably out of economics departments nearby, and studies of child development and family relationships came from the psychology and sociology training of the home economics students and staff. Whatever the accomplishments of Home Economics in the Land-Grant institutions to date, it is part and parcel of what these institutions have accomplished in all these supporting fields, and its course in the future is inevitably bound up with theirs.
Like Agriculture, Home Economics is not a single field of scholarship but a conglomerate of several fields brought together for a single social purpose. It has its roots in at least five different basic sciences and arts, and it uses the techniques and disciplines of all these, as well as a few which it has developed for itself. Thus, Home Economics has bases in the physical and biological sciences for its food and nutrition, textiles and equipment studies; in the social sciences for its family economics and management studies; in psychology for its child development and family relations studies; and in art and architecture for its clothing and interior design and housing studies. Studies in these fields provide a broad and basic education for the foundations of a home economics curriculum. Then, through the erection of a superstructure of technical home economics courses on this base, during the upper-division years of the undergraduate curriculum, we have the elements of liberal and practical education combined in reasonable balance for citizenship, for home and family life, and for satisfying living for the individual. Such an undergraduate curriculum also lays a good foundation for the development of specialized and professional training at the graduate level, to meet the growing demand for specialists and professional leaders in this field.

Every home economics department at the university level need not develop research and graduate study seriously in each of the four or five areas available. But every properly-staffed college department will inevitably have some effort in each area in progress because competent members of the teaching staff will not be content to discontinue their own researches entirely. In addition, each department is likely to have the opportunity and, indeed, the necessity for development on a larger scale of research in one or more of these areas. No institution can afford to limit its Home Economics staff to teaching only, nor on the other hand to waste its substance on so-called research by inadequately-trained personnel or with limited equipment and supplies. A single field, well-tilled may put the stamp of scholarship on a home economics department, but teaching by a staff without experience or interest in research cannot long maintain an environment of stimulating intellectual activity.

I would not create the impression that research is the "sine qua non" of progress in home economics. While essential to the advancement of scholarship it is only one factor in a balanced triumvirate of teaching, research, and the inculcation of social values which constitute the bases of home economics education. Although we may train many professional specialists in the home economics curricula, the basic purpose of home economics education is preparation for satisfying family and individual living. The homemaker is responsible for the health and nutrition of the family, but diets adequately supplied with calories and vitamins, and surroundings that are immaculately germ-free, fail to make a home unless they are accompanied by the charm of graceful living. Little touches of tasteful decoration; a meal well served; conversation that rises above personalities and routine duties; social poise that puts every member of the family and guest at ease; an intelligent interest in community and national problems; and a thoughtful appreciation of cultural and moral values, are the accents which transform houses into homes. Add these accents to the professional training of homemakers and the problems of delinquency of American youth will diminish. Add them to our offerings for homemakers and the generation which is produced in these homes will come to college with a heritage of culture and charm that is so essential in successful social intercourse.
My thesis, ladies and gentlemen, in summary is, that in the years ahead the Land-Grant Colleges and Universities will need to lay more emphasis on that part of their original charge - the liberal education of the industrial classes. In planning their technical and professional curricula they will do well to differentiate more clearly between training and education - between the acquisition of skills and information and the development of a disciplined mind. They will need to offer their students a better-balanced educational experience in the preparation for living, one which will provide not only professional and technical competence but the stimulation of intellectual interests and the development of disciplined habits of thought and feeling. Only if such intellectual interests and habits of thought are aroused will the student have the stimulus and the power to continue to explore, on his own initiative, new ranges of subject matter and in later life to deal intelligently with fresh situations and problems as they arise.

Educational experiences which will aid in the development of these abilities and capacities in the citizens of this democracy have always been patent. They will be essential to its survival in the years ahead.
A QUARTER OF A CENTURY OF AGRICULTURAL PROGRESS

Claude B. Hutchison

Farm and Home Conference
Davis, California
January 26, 1956
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During the current academic year, the University of California on each of its eight campuses, in various but appropriate ways, is honoring its great president, Robert Gordon Sproul, for his inspiring leadership of the University for more than a quarter of a century. Since I have been on the scene in the capacity of one of his primary assistants in one segment of this large, complex and far-flung institution during most of this period, it is perhaps not entirely illogical, that the program committee of this meeting should have invited me to review for you this morning some of the development of the Davis campus and to tell you of some of the contributions which have been made here to the welfare of California, during the presidency of Doctor Sproul. At any rate, I am honored by the committee’s invitation and am pleased to have a part in this important meeting. It is nice to be back in the calm atmosphere of an academic environment once more, where there are perhaps less snags and stumps to be encountered, than in the new field which I am plowing these days.

To set the stage for a proper perspective I would like to take you back to a few years just prior to the beginning of the 25-year period which we are considering this morning — to a time when two very important decisions were taken by the people of California and by the Regents of the University in response to public demand — two decisions which set in motion forces that have brought about subsequently the developments which you see on this campus today.

The first of these decisions was taken by a group of able, far-seeing agricultural leaders of California who, shortly after the close of World War I, organized what was known in those days as the California Agricultural Legislative
Committee under the able chairmanship of the late Charles C. Teague of Santa
Paula. Mr. Teague was a prominent citrus and walnut grower, the creator, and
for many years president of the California Fruit Growers’ Exchange, now the
Sunkist Association and the California Walnut Growers’ Association. He was
later made a Regent of the University, serving ably on the Regents’ agricultural
and other committees for several years until his death. He was also a member of
the Federal Farm Board in President Hoover’s administration, first of the several
agricultural adjustment agencies which have been created by the Congress to solve
agriculture’s ills.

This Agricultural Legislative Committee, presently the Agricultural Council
of California, undertook to foster legislation it believed to be in the best
interests not only of agriculture but of the general welfare of this state.
Consisting of some of the leading farmers of California, it gave especial attention
to the interests of the great agricultural industries of the state. During the
past three decades many of the advancements which have been made in California’s
agricultural services have had their genesis in, and certainly the support of,
this committee.

Early in its life — possibly as one of the reasons for its formation —
this Committee determined that the two state public supported agencies then serving
agriculture should be strengthened, equipped and manned to a point where they
could more adequately meet the needs of the fast-growing, ever-expanding and
highly specialized agricultural industries of the state.

These agencies are (a) the University’s College of Agriculture with its
Agricultural Experiment Station and its Agricultural Extension Service devoted
to education and research, and (b) the State Department of Agriculture, for
regulatory and control services.

Over the intervening years this committee and its successor, the Agricultural
Council of California, has been very helpful in bringing to the attention of the
University’s administration, agriculture’s needs for education and research and
in helping to persuade the legislature to provide increasing appropriations to support these activities. Similar help has been given by the Council to the officials of the State Department of Agriculture in building that agency to its present national eminence.

Thus California became one of the first two states of the Union — the other being New York — where, with the onset of the agricultural depression immediately following World War I, farmers themselves expressed their faith in education and research as the most effective means, in the long run, to improve and strengthen agriculture and to enhance their own economic position.

The wisdom of these California agricultural leaders has been amply demonstrated in the intervening years, not only by results here at home, but also by the fact that their pattern and their procedures have been widely copied by the farmers of many other states.

The second far-reaching action taken in California about the same time was the decision of the Regents in 1921 to inaugurate lower-division instruction on the Davis campus in the basic physical, biological and social sciences. Prior to that time the University had been struggling to develop and maintain its College of Agriculture largely on the pattern of the leading colleges of the east and midwest — i.e., on the main campus of the University at Berkeley. Regular degree students of agriculture were registered at Berkeley, spent the first two years of their four-year course there and then transferred to Davis for two or more semesters, depending upon their major interests, for upper-division courses which could not be effectively given at Berkeley because of limited physical facilities on that campus.

This arrangement entailed many difficulties and in time resulted in dissatisfaction on the part of both faculty and students, and no little criticism on the part of many rural people of the state. Indeed by 1921 that criticism had gone so far as to result in the introduction of legislation in the Legislature to separate the College of Agriculture from the University and set it up in an agricultural area as an inde-
pendent land-grant colleges in several other states.

Fortunately this legislation failed of enactment. Instead a Commission was created by the Legislature to study the problem and later recommended against the proposal. In the meantime the Regents took steps to strengthen instruction in agriculture at Davis by inaugurating lower-division instruction in the disciplines basic to agriculture there as well as at Berkeley, thus laying the basis for the growth and developments of this campus to its present national and international stature.

As I look back over the years and reflect upon the subsequent great growth of the College of Agriculture and especially the growth and developments of the Davis campus, it seems to me that those two actions more than anything else may be said to be responsible for the developments we see around us today. Since I came upon the scene in 1922, I have had opportunity to watch and I hope, to help guide in some measure these significant developments.

Certainly these two actions set in motion forces which over the years have led to the gradual shift of the great majority of the University's work in the field of agriculture here in the north from Berkeley to Davis and the development of this campus as the primary center of its agricultural activities. Even at the risk of appearing to dabble in matters which are no longer my responsibility, I make bold to express the hope that nothing will be permitted to retard the further natural flow of all agriculture activities of the University in the north to this campus.

It must be obvious to all that the two primary campuses of the University are in metropolitan areas where population, traffic, parking, limited land resources and other pressures continue with unabated and persistent determination. Other important and urgent needs for space and land have all but exhausted the land originally dedicated to agriculture on the Berkeley campus. Similar needs exist and similar forces are at work in Los Angeles. The problems on both of the University's major campuses are the same; they differ only in degree.
It seems to me not only logical but inevitable then, that pressure of other university needs on the two primary campuses ultimately will compel the transfer of all agricultural activities in the north to Davis and in the south to Riverside — both supplemented by a series of outlying field stations or other minor centers, for studies of special problems arising from the great range in environmental factors which influence agriculture in this state and under which her crops are grown.

There is, however, one factor in this that could be — but need not be — dangerous or even fatal. Agriculture, like medicine, engineering, home economics and other fields of study, depends upon the physical, biological and social sciences, and arts and humanities have an important place in anyone's education. Agriculture cannot be taught or its problems studied, at the university level, in an environment isolated from these basic disciplines. It must be accompanied, not merely supplemented and supported by strong developments at the truly university level in the basic arts and sciences. Even the student who is preparing himself to engage in one or more of the complex agricultural industries we have today needs and is entitled to receive as good instruction in these basic disciplines as students in any other field of human knowledge. We need educated — not merely trained — men and women on American farms these days as never before.

It is my belief that whereas a great University can be developed without agriculture (witness Harvard, Columbia, Chicago, Stanford, just to name a few) a great university and on a campus where other related and basic disciplines thrive. The truth of this statement, should anyone be inclined to doubt it, is clearly demonstrated, I think, by the experience during the past ninety or more years of the independent land-grant colleges of this country, the best of which have already become in fact — in some cases indeed in name — the second state university of their respective states.

Fortunately the University of California has already made a good beginning in these matters on both the Davis and the Riverside campuses, where recently
university Colleges of Letters and Sciences have been organized. This has made both of these campuses better places for agriculture, veterinary science, home economics and other special fields, since, as I have said before, it has made them university rather than college campuses. These Colleges of Letters and Science will fail not only to reach their own highest destiny and educational service to their own students, but they will also fail in their corollary support for agriculture, if they are permitted ever to become less than true university centers in their own right.

Furthermore, unless these colleges are developed and maintained at the university level they cannot be expected to attract students who would otherwise seek admission to the University at Berkeley and at Los Angeles, and thus help, as has been hoped, to relieve undergraduate student population pressures on these campuses. The high type of undergraduate students now admitted to the University of California will not be attracted to, not long be contented with, anything less than a true university educational experience, no matter on what campus it is offered.

Now let me direct your attention briefly to some charts which Vice-President Wellman has generously placed at my service and which depict better than words the phenomenal growth that has taken place on the Davis campus during the past twenty-five years under the able leadership of President Sproul.

A. Land Acquisitions at Davis

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1906</td>
<td>Original University Farm</td>
<td>779</td>
</tr>
<tr>
<td>1926-1945</td>
<td>Additions</td>
<td>332</td>
</tr>
<tr>
<td>1946-1952</td>
<td>Additions</td>
<td>1877</td>
</tr>
<tr>
<td></td>
<td>Less Highway Loss</td>
<td>3008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2990</td>
</tr>
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</table>
### B. Growth in Academic Staff

<table>
<thead>
<tr>
<th></th>
<th>1929-30</th>
<th>1930-40</th>
<th>1945-46</th>
<th>1955-56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>65</td>
<td>100</td>
<td>115</td>
<td>257</td>
</tr>
<tr>
<td>Veterinary Science</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Home Economics</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Letters &amp; Science</td>
<td>15</td>
<td>35</td>
<td>31</td>
<td>106*</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>82</strong></td>
<td><strong>143</strong></td>
<td><strong>152</strong></td>
<td><strong>416</strong></td>
</tr>
</tbody>
</table>

* 30 in Agr. Exp. Sta.

### C. Student Enrollment

<table>
<thead>
<tr>
<th></th>
<th>Fall 1929</th>
<th>Fall 1932</th>
<th>Fall 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nondegree</td>
<td>293</td>
<td>797</td>
<td>215</td>
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</tbody>
</table>

#### Degree — undergraduate

<table>
<thead>
<tr>
<th></th>
<th>Fall 1929</th>
<th>Fall 1932</th>
<th>Fall 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>141</td>
<td>353</td>
<td>925</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>0</td>
<td>0</td>
<td>72</td>
</tr>
<tr>
<td>Letters and Science</td>
<td>0</td>
<td>0</td>
<td>111</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>141</strong></td>
<td><strong>352</strong></td>
<td><strong>1308</strong></td>
</tr>
</tbody>
</table>

#### Degree — graduate

<table>
<thead>
<tr>
<th></th>
<th>Fall 1929</th>
<th>Fall 1932</th>
<th>Fall 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>21</td>
<td>75</td>
<td>255</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>0</td>
<td>0</td>
<td>124</td>
</tr>
<tr>
<td>Letters and Science</td>
<td>0</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>21</strong></td>
<td><strong>75</strong></td>
<td><strong>105</strong></td>
</tr>
</tbody>
</table>

|                | **455**   | **1225**  | **1928**  |

#### TOTAL

|                | 455       | 1225      | 1928      |

<table>
<thead>
<tr>
<th>Sex</th>
<th>Fall 1929</th>
<th>Fall 1932</th>
<th>Fall 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>442</td>
<td>1070</td>
<td>1418</td>
</tr>
<tr>
<td>Women</td>
<td>13</td>
<td>155</td>
<td>510</td>
</tr>
</tbody>
</table>

### D. Permanent Buildings

#### a. Constructed before 1930

- Agricultural Engineering
- Animal Science
- Dairy Industry
- Horticulture Building

#### b. Constructed since 1930

- Hughes and Beckett Residence Halls
- Chemistry
- Memorial Union
- Food Technology
- The Gymnasium
- Student Health Center
- Home Economics
- Hunt Hall
- Library and Administration Bldg.
- Poultry
- The Narine Veterinary School Building
- Soils and Irrigation
The past twenty-five years have likewise witnessed remarkable advancements in agriculture — particularly in the application of science, technology, and engineering to the everyday tasks on American farms and in American farm houses. Nowhere in this nation, or elsewhere for that matter, has this been more true than in California, for nowhere does agriculture depend more upon science and engineering than here in our own state. Indeed, this has been done so well that for the second time in the memory of many of us, we are troubled and unhappy because American farmers have become so proficient and our agricultural plant so expanded that we can now produce more food and fiber than our present markets can absorb at fair prices to the producers. This is not the time nor the place to discuss agriculture's current ills, troublesome as they are, but it may be the time to say that not less, but more education and research in agriculture are needed, and not more, but fewer and still more efficient farmers required.

There has always been migration from rural to urban areas in America from colonial days down to the present time. As farmers have increased their proficiency, it has been possible to release a continuing stream of markers from the production of food and fiber to the production of manufactured goods of all kinds, and numerous and varied services. It is this which over the years has brought our standard of living to its present heights. Contrast this, if you will, with the position of China where today with the primitive methods and technics still in use in agriculture, the work of 80 to 85 per cent of the people is required to produce these bare necessities of life. We do the same with probably not more than 10 or 12 per cent of our labor force and still have at times too much food and fiber left over.

But further advancements in science and technology, including marketing and distributing, are needed as much in agriculture as in other segments of our economy in this complex and highly competitive world in which we live today. In the long run the technological and economic patterns in agriculture will not be greatly different from those in other segments of our productivity. They will all be based upon the greatest possible use of non-human energy and the greatest possible output per man hour.
It would be pleasant if time permitted, to tell you something of the work of all of the departments on this campus. They are all staffed by able men and women and all are doing work of which we can all be proud. I note, however, that this Conference is restricted to the work of four. They are: Agricultural Engineering, Agronomy, Animal Husbandry, and Home Economics.

Adequate treatment of the accomplishments of any one of these Departments during the past twenty-five years would require more time than is at my disposal this morning. During the remainder of today and tomorrow you will have opportunity to hear from men and women directly connected with these departments and hence more competent than I to tell you of their work. I can only direct your attention to a few things which seem to me to illustrate best the many contributions they have made to the welfare of the people of this state and nation.

**AGRICULTURAL ENGINEERING**

Perhaps in no field in which this College of Agriculture is engaged have its efforts been more fruitful in the advancement of human welfare than in the application of engineering to agricultural production, processing and distribution. By this means the burden and drudgery of farm work has been markedly reduced and the output per worker has been greatly increased. Farm mechanization has released thousands of agricultural workers to other industries, thus contributing to California's remarkable industrial expansion and to the unusually high standard of living that now prevails in this state.

Some of the advancement in agricultural production during the past twenty-five years must of course be credited to improvements in non-engineering phases of agricultural technology, such as improved crop varieties, improved breeds of livestock and poultry, the more effective use of fertilizers, fungicides and insecticides, and improved cultural, feeding and management practices. But a major factor—perhaps the most important single factor—has been the increased utilization of non-human energy and of more effective machines and implements on California farms and ranches.
Studies of air cleaners for motorized equipment undertaken nearly forty years ago was one of the Department's early important contributions. Adapted later to all types of automotive equipment and now widely used, these improved air filters have saved the American public many millions of dollars in maintenance expense.

Spark arresters for motorized equipment developed by the Department have greatly reduced the fire hazard in California grain fields and forests.

Frost protection studies, including the design and development of a virtually smokeless orchard heater and the study and improvement of wind machines have decreased the cost and smoke nuisance in protecting citrus and other valuable orchard crops from frost damage.

The mechanization of rice production, including harvesting and drying, has reduced the man hours required to produce rice in California from 50 to 7½ per acre. It is interesting to note in passing that some 900 man hours are required to produce an acre of rice under the primitive methods still used in the Orient.

The Department has likewise made important contributions to the mechanization in the production of sugar beets, cotton, forage seed, grains, beans, fruit, vegetable, nuts and vine crops — all in the interest of reducing human labor and the costs of producing and harvesting of these crops.

An onion harvester, an asparagus harvester, tomato picking and harvesting aids, fruit and nut dehydration, packing house studies, including the development of an electronic fruit color sorter, tree shakers and catching frames, mechanical grape harvesting, an apricot cutter — these and other contributions attest to the broad scope of the Department's interests and efforts to apply engineering to California agriculture.

AGRONOMY

The production of field crops, grains, beans, forage and pasture crops constitutes an important part of California's agriculture. Upon them depend in large part the feeds and forage requirements of the livestock, dairy and poultry herds and flocks.
The Department of Agronomy has made important contributions during the past quarter of a century and more, in the introduction of new crops and varieties and in the development of new and improved, disease-resistant, better quality and higher yielding strains and varieties.

Studies of range plants, the introduction of new species, the use of fertilizers, brush removal from, and seeding of range lands, have contributed to the better utilization of some 30 million acres of range lands in the state.

The use of the technic of back crossing — pioneered in this Department — has enabled plant breeders here and elsewhere, to transfer the hereditary units responsible for disease resistance to the hereditary complex of a given variety of wheat, barley, oats or other crops without the breakdown or dissipation of the other desirable characters of the variety.

**ANIMAL HUSBANDRY**

I very much doubt if in any field of agricultural education and research have more significant changes been made in the past twenty-five or thirty years than in animal husbandry. Many in this audience today will recall the time, not more than thirty or forty years ago, when the programs of animal husbandry departments generally throughout the country consisted largely of the teaching of livestock judging, the promotion of livestock shows and expositions, instruction in feeds and feeding, and empirical feeding trials. To be sure, here and there were to be found at that sporadic beginnings in some of the basic biological sciences, such as biochemistry, genetics, physiology, nutrition and the like, but these beginnings more often than not, were started in separate departments of these colleges, or even in medical schools remote from animal husbandry. Animal husbandmen of those days were slower than their colleagues in the plant fields — agronomists, horticulturists and the like — to recognize the role that these newer outreaches in biology were destined to play in their field of applied science and to make use of them in the study and elucidation of phenomena and problems with which the livestock industry had long been contending.
In the later nineteen-twenties the Department of Animal Husbandry on this campus made a great forward step by bringing into its staff, men trained in those several biological sciences to cooperate and work with orthodox specialists in the several classes of farm animals. Thus the University of California was in the forefront of a movement that has brought science to the service of the great livestock industries of the state and nation, and which more than any other thing has made possible the great advancements that have occurred in this field of agriculture in the past two decades.

Again, the limitation of time will permit only a brief and cursory review of the many accomplishments of this department during the period which we are reviewing this morning. Among these are:

1. Studies of Vitamin A deficiency not only established the minimum requirements of Vitamin A for cattle and other classes of livestock, but demonstrated that young animals may become deficient in Vitamin A when grazing on the dry herbage of the Sierra foothill ranges and how the range can be supplemented with cottonseed meal to make up this deficiency.

These and other range management studies in cooperation with other departments in the college have pointed the way to greatly increased productivity of the extensive range lands of California.

2. Through inbreeding and line breeding — the application of genetic principles to the breeding of dairy cattle have shown how hereditary defects may be uncovered and ultimately eliminated from a herd and how other hereditary factors responsible for milk and butterfat production may be continued and concentrated to make more efficiency producers.

Studies of dwarfism in beef cattle have demonstrated the existence of two genetically different kinds of dwarfism in the germ plasm of many family lines of beef cattle, with strong indication that the expression of these dwarf genes is complicated by other modifying factors. Current studies over a rather wide range of attacks are underway designed to ascertain how these factors act and to find ways and means of detecting their presence in normal appearing animals.
3. Studies of metabolism in domestic animals have defined the relationship between body size and metabolic rate. Currently radioactive isotopes are being used in metabolism studies of large domestic animals. This is but one of the many instances in which products of atomic research are now contributing to a better understanding of agricultural matters through their use in agricultural research.

4. The Vitamin B complex plays an important role in animal and human nutrition. Studies in this department have shown that many of these are synthesized in the rumen of cattle and sheep by the large numbers of micro-organisms normally present.

5. Studies of sterility in farm animals, the cause and control of bloat, the genetic control of growth in animals, are but other examples of the many ways in which this department is bringing science to the service of the livestock industry of California.

HOME ECONOMICS

Home Economics is a relatively new development on this campus — at least at the magnitude of its present dimensions, with its splendid new building and modern equipment. To be sure, a modest beginning was made several years ago with meager facilities in what was thought would be temporary quarters in the basement of South Hall. A period of economic depression followed by war delayed until a few years ago the physical facilities required by a first class department in this field. That these are now available must be a source of much satisfaction to the staff and students of this campus.

I am tempted to tell you of one interesting — certainly a unique — factor in the early establishment of instruction in home economics on this campus; its first budget was financed from the University’s income from the Fair and Exposition Fund. This money, as you know, comes from the State’s participation in and regulation of pari-mutual horse race betting on race tracks and fair grounds throughout the state. The Legislature a number of years ago determined that the University should share in the "take". The University Administration and the Regents have normally and wisely used these funds for the purchase of land, buildings, equipment
and other non-recurrent expense. Its use for one biennium to start work in home economics here was perhaps one of the calculated risks one sometimes has to take in the interests of a worthy cause. Fortunately we had no difficulty in including the modest sum for support of this Department in the University's regular budget the following biennium, thus placing it upon a less precarious foundation.

I have long believed that the field of home economics together with the use of the basic and allied disciplines in the arts, sciences and humanities could be made the basis of a liberal education for women second to none. That it has not always been developed in this manner is not evidence that it cannot be done. It just might be due, you know, to lack of vision on the part of some — including myself — in whose hands its potentialities have lain. Now that more adequate physical facilities have been provided on this campus for home economics, the possibilities are here to provide for the young women of California through this means a rich and stimulating educational experience at the university level that will contribute much to their lives as educated women and as good citizens, wives and mothers. I very much hope that the rural women of California especially, will lend their continued support to this Department. If they will, they can help guide its growth and development in a manner similar to that which has been done in the field of agriculture. I have seen too many things done in this world by organized and devoted women to underestimate their strength when they set their minds and hands to an important task.

The past twenty-five years have been a dynamic period of substantial growth and remarkable development in California and in her varied agricultural industries. It has likewise been a period of remarkable growth and expansion of the educational and research activities and facilities which have been developed on this campus and elsewhere in the University for service to those industries.

Here a great educational institution has been built from a modest beginning under the wise leadership of Mr. Sproul. An adequate acreage of land has been
attained. We are rapidly accumulating needed buildings and other facilities, well equipped for the tasks of teaching and research at hand. A staff of competent and devoted men and women has been assembled. Student enrollment is steadily growing with a student body unsurpassed in loyalty and devotion to their university and state; the esprit de corps of faculty and students is high. The future is indeed bright.

I am grateful for the opportunity that has been mine to have had a part in these developments.
I am honored by your invitation to speak to you this evening and flattered by the thought of your program committee that one who has done so little research himself — one who terminated his active participation in research as a relatively young man to enter the administration field — could possibly have something of interest to say to such a group as this, occupied as you are in laying a firmer scientific foundation for the improvement of one species of man's most important domestic animals.

Let me assure you at the outset that I shall not discuss a single principle of genetics this evening, nor attempt to show you how it might be applied toward the goals you seek. I am far too rusty — if indeed not in a complete stage of erosion — in the field of which I once professed to have some knowledge — to undertake that. Many, if not most of you, could do a much better job at that than can I; and I shall not embarrass either you or myself by attempting to prove the truth of that statement.

I shall have nothing especially timely to say to you and no burning message or words of great wisdom to leave with you. And if what I shall say has any resemblance to anyone living or dead (save myself) or reference to any event or incident outside my own personal experiences and observations, I assure you it will be purely coincidental.

My purpose this evening will be to recite some experiences and to state some philosophies which I have developed over the years, with the hope that some of the younger men in my audience, some of whom have already been or ultimately will be lured into the administrative game, may find something of interest and possibly
something of value in what I shall say. Some of the things which I shall say merely
confirm the wisdom of some advice I was given, and thank goodness had sense enough
to take, when I entered the administrative field.

What I am going to say will be mostly about myself. I hope you will forgive
this and not think me too immodest. After all, in reminiscing, one is most apt
to recall events and incidents in which one has had a part. And reminiscing is
always tempting to one of my age.

(Story of the Professor on the Witness Stand)

Besides, your program committee was gracious enough to permit me to select
my own subject this evening - at least to the extent of wording the subject which
appears on the program. They did express the hope that I would direct your thoughts
to and attempt to describe the kind of academic environment that is most favorable
for productive scholarship. I will get to that in due course, but let me say
right now that good administration has just that very thing to do and no administra-
tion is good that does not strive always to create just such an environment.

I am not a moralist, however, nor a missionary. I have never aspired to
save anyone - least of all university administrators, and I shall not try to do so
this evening. Most administrators have to learn - often the hard way - in the hard
school of experience. If one has vision and imagination, good judgment, a lot of
good common horse sense, the ability and willingness to make decisions, sense enough
to think things through - not to think merely of the problem at hand but to anticipate
the effect which a decision made today may have tomorrow, next week, next month or
next year - and let's say 80 to 90% of his decisions are right - he has done about
as well as we can expect a human being to do.

There isn't much one can study, I think, to prepare oneself for university
administration, although I admit that some attempts are being made in this direction.
Administration is certainly not a science and I doubt if there are many well defined
principles upon which one can completely and with full confidence rely. Certain rules and regulations can perhaps be devised — but at best they can serve only for guidance. One of the wisest administrators I have known put it this way: "Rules and regulations are for guidance. When you find a rule prevents you from doing what you know should be done, it is time to set aside or change the rule." That is where administration comes in — the exercise of judgment. If an institution could be run by rules it wouldn't need an administrator — a chief clerk or a policemen would do.

I am quite sure there is no one best form of university organization or administrative procedure for all. Each institution is an individual enterprise — a dynamic, living, individual organism which has evolved in its own way and in response to its own environment, human as well as physical. An administrator can only help guide that evolution in a way that promotes a healthy environment for teaching and learning — the only reasons for a university's existence.

I got into the game of university administration as a relatively young man. Since my age at the time is a matter of public record I have no hesitancy in admitting it. I was 37. I was a youngster yet and had a lot to learn, as a good friend and himself an able university administrator so pointedly advised. Incidentally, may I say with mixed emotions too, that I have done no formal university teaching or research since the age of 39.

Now, how does one become a university administrator? Some by design or ambitions of course — but mostly, I think, by chance. Some by immediate circumstances in their institution, are tempted into it — or even victimized by being offered a higher salary. In this way, sometimes a good scholar is transformed into a very poor administrator.

I had had no administrative experience save the chairmanship of a small department for about three years, when I accepted the University of California's invitation to become Director of what was then called the Branch of the College of Agriculture on this Davis campus.
I had been a professor in two other American universities and at the time was happy and content in teaching theoretical genetics and in studying the genetics of maize. I had no special ambition that I can recall to do anything else. I was doing what I wanted to do. I believed then, as I believe today after almost a third of a century of administrative experience, that the most desirable post in a true university is a professorship. I believe that in a university, worthy of the name, the objective of its administration should be to encourage among its faculty and students the accumulation and diffusion of knowledge through teaching and learning - the advancement of knowledge through research - and above all the opening of new vistas to youth to an understanding of man and his physical, social, moral and spiritual environment, with minds well trained and disciplined, free to seek and discern the truth, free to state the truth as they see it. Teachers do these things, gentlemen, not administrators. Teaching and learning is the goal. Only Administration can aid - help - or possibly retard - the attainment of that goal.

A university's greatest product is its students. If I have any regret in my university experience, it is that I cannot point with pride to the accomplishments of my students - at least very many. But I hasten to assure you that I do have much pride in the accomplishments of the young men I have gathered about me over the years, most of them in this University, and in whose success I like to feel I have had a little part by helping to create a favorable environment for them in which to work happily, contented and productive.

The next greatest product of a university is its contributions to the advancement of knowledge, for upon the advancement of knowledge depends the advancement of human welfare. Evil men may misuse knowledge for personal prestige, power or gain, but that is no indictment of knowledge itself. Therefore no institution is worthy of the name university that does not provide facilities and actively encourage members of its staff to do something to advance the frontiers of knowledge in
their respective fields of scholarship. Research even of modest proportions vitalizes teaching and stimulates curiosity, in contrast to stale textbook and encyclopedic information. Much of the latter is ultimately forgotten and likely not, some bright and curious young man next week will prove it wasn't true anyway!

But to get back to administration. Why and how was I tempted to embark on this precarious journey?

I suppose the reason I went into administration was about threefold. First there was the telegram - that telegram which I found on my desk one morning, just before going into the classroom to deliver one of my fascinating lectures in genetics. Would I come to Washington to discuss the possibility of an invitation from the University of California to become Director of the Branch of the College of Agriculture at Davis? Oh yes! you have guessed it - the salary mentioned was some 70% greater than my own university at the time deemed my services to be worth. Was this opportunity knocking at my door? I had better go down to Washington and see!

A second reason was more personal - a self-appraisal of my own shortcomings - with the ultimate conclusion, right or wrong, that interesting though what I was then doing might be, I was not likely to make any great contribution in my chosen field of scholarship. I hadn't, up to that time. Why should I expect to do so in the future? One of my teachers used to say if a man hasn't done some important research by the time he is thirty, he is not likely to do so. I am inclined to agree. But please do not misunderstand me. We cannot all be Nobel Prize winners or even members of the National Academy of Science. And I do not underestimate the value of the contributions of the "hewers of wood" and the "carriers of water" which most of us must be -- the small contributions - the filling in of the gaps -- even the empirical investigations often necessary as the first steps in opening up new fields of inquiry.

The third and perhaps the most important factor in my decision was an emotional interest in agriculture and in rural people from which I had myself sprung through
many generations and the thought that perhaps in the administrative field I could make a more important contribution to agricultural science and agricultural education and hence to human welfare, than by my own individual efforts in a single field of science.

I had grown up and had my undergraduate university educational experience at a time when practical things were emphasized in the curriculum of most colleges of agriculture. Faculties of agriculture were supposed to train farmers and more often than not, they as well as others in those days, measured their success by the percentage of their graduates who returned to the farm. Some graduates, to be sure, were beginning to seek and find employment in various industrial and commercial activities related to agriculture, but in nothing like the numbers that do so today. Some were offered and like myself, accepted assistantships in some department of a college of agriculture and because of the old law of supply and demand were soon promoted to positions of more responsibility than their educational experience had equipped them adequately to assume. As for graduate study, the extreme views held by some college administrators that only the lad who could not find a good job upon completing his undergraduate work continued his formal education through graduate study. The most able graduates were encouraged to go to work - on the farm - in the university or elsewhere; the less able perhaps had better continue their education until they could get a job.

Such was the situation in agricultural education in America at the turn of the present century - and let me assure the youngsters in my audience that, strange though it seems, I do not greatly exaggerate. Here and there, of course, some attempts at improvement were being made. Congress was to pass the Adams Act in 1908 (or was it 1906), the first step taken nationally to encourage basic research in agriculture and a few agricultural experiment stations were beginning to make greater use of the tools of science in their work. But, by and large, agricultural research in America was still dominated by empiricism and agricultural instruction by practical information. Even as late as the early nineteen twenties the director of the
Experiment Station of one of our greatest agricultural states could ask: "Under what project did Darwin work?"

It was this situation that attracted my interest and the conviction that a more basic approach to agricultural research and instruction was needed that led me to accept this University's invitation to an administrative post. The educational preparation currently expected of young appointees, the period of apprenticeship through which they pass before attaining tenure and the role which the basic physical, biological and social sciences play in agricultural research and instruction today strikingly evidence the progress that has been made in most colleges of agriculture in this country during the past third of a century. There is one notable exception to this - namely, in agricultural extension - where with very few exceptions, such less educational preparation is still accepted of appointees than for those who engage in resident teaching and research, despite the fact that we say that extension work is teaching, that all three are of equal importance and that salaries, tenure, and other elements of compensation should be the same.

Time will not permit me to develop this point further, but let me say categorically that extension work in agriculture and home economics in this country today is still in the hands of men and women whose educational preparation on the average has been much less vigorous and thorough than that which is now commonly demanded of members of the resident staff.

I have never regretted my decision to enter administration, notwithstanding the occasional nostalgic feelings I have from time to time experienced. The dynamic situation we have had in this growing State of California during the past three decades, the generous support of our work by the State, the stimulating encouragement of my superior officers, the loyalty and splendid cooperation of my administrative associates, the productivity and accomplishments of the faculty and staff - all have been richly rewarding to me. I am grateful for the opportunity that has been
mine to be a member of such a team and to have had a small hand in helping to create an environment in which such productive scholarship could develop and thrive.

**Some Things Learned.**

In the thirty years I have spent in university administration, I have learned some things. Whether they have wide application I do not know. Everyone, I believe, is influenced to a considerable extent in his own thinking by his own experiences. He may perhaps therefore, draw conclusions sometimes that are not entirely valid or warranted. Possibly I do.

But among the things which, I think, I have learned are:

1. Universities, like all human organizations or institutions, are made up of men and women. They can be no better than the men and women of which they consist. Hence I am inclined to think that perhaps the most important administrative function any university has is the recruitment of staff and that upon how well it does this over the years, its ultimate success depends.

Some institutions leave the responsibility of recruitment largely or entirely to departments; some to committees of the faculty; some pretty much to provosts, deans, directors or other administrative officers.

Of one thing I am quite sure, this responsibility should never be placed in the hands of a single man, no matter who he is. There is too much danger of individual bias - personal likes and dislikes, friendships, emotions and other human traits, affecting his judgment.

Nor do I think recruitment can with safety, be left always to departments. Some departments may become smug and complacent, basking in the shadow of their past greatness and dry rot sets in. Some may not relish the disturbing influence of competition. A young man in this university once asked, "How does the President know when a department needs rehabilitation?" - to which one of my administrative colleagues replied, "When the stench gets so strong that even the President's nostrils cannot escape it."
And I wouldn't assign the task of recruitment exclusively to faculty committees, as some advocate and some administrators do, on the theory that faculties have some God-given wisdom and know better than anyone else who is most worthy of admission to membership in their company.

Personally, I like the system that has evolved here in California over the past thirty or forty years - a system of checks and balances and which involves the work and cooperation of committees, departments, administrative officers and anyone else who can help. I would not be completely frank with you, however, if I did not admit that some of my very good friends in other universities, themselves very prominent and very able university administrators, regard California's system of recruitment and promotion as intolerable - not to say pernicious. I can only say that in my opinion it has worked well here - but again that may be a judgment based too much upon my own experience - an experience which, as I have already said, has been almost exclusively in this University.

2. Another point in recruitment which I think may well be kept in mind if we are really striving seriously to strengthen our university, is that we should aspire, even though we may not always succeed, to make each appointment a better one than the last. We should believe that no one is too good for our company and strive to find the best man available wherever he may be.

This procedure, of course, may sometimes conflict with another important principle, namely, that morale is built by promotions within the staff and good judgment must be exercised in its use. We should never overlook good material at home or assume always that better material is to be found elsewhere. We may sometimes underestimate the capacities of one of our associates with whom we have lived and worked and know well, and there certainly is some risk that we may overrate someone at a distance whom we do not know so well. Nevertheless, if a full and careful survey of all possible candidates has been made, one can then be more assured and hence more happy and content when one finds that "best available man" already in his own institution.
In recruitment, I suggest too, that you avoid tying your hands by the assumption that someone is not available. If you really want him, let him settle that matter by a discreet inquiry on your part. There may be personal or family reasons that make your proposal attractive, of which you may not be aware.

(Illustrate P.E. at Davis.)

3. Also, I would say to administrators, make the most of what you have. At times most of us need encouragement and all of us welcome commendation and helpful criticism. A pat on the back may be all that is needed; at least it often helps. Some administrators complain about tenure, but I believe in it—strongly. Tenure may be irksome at times—especially when one has made a mistake or has inherited a mistake made by his predecessor, but in the long run its advantages far outweigh its disadvantages.

And I would say to staff members, make the most of the situation in which you find yourself at any time. Strive, of course, to improve it—not by labor union techniques, but by hard and conscientious work. If you can't improve it, there is always the possibility of leaving. I have often said—especially to young men, that the best kind of tenure I know results from making oneself so useful, his institution cannot get on without him.

I would say to both administrators and staff members, try to discover your mistakes early so that the individual concerned may move on to a place where he fits in better and thus can be happier and more productive. It is much better to be in the lead of a procession that is moving slowly than to be continually struggling to keep up with one which is moving too fast for us. I have had the unpleasant task of having to advise a few young men to seek larger opportunities elsewhere for that very reason, but I am happy to say that in each case where my advice was taken, it resulted in good, both to the individual and to the university. It is fortunate for all when this can be done while the individual is young and can readjust. We all know that young plants transplant much more readily than old ones.
4. When you already have reasonably good leadership in any field, but on youngsters. They will have had the most modern training and education, and it is easier to get rid of them if you do make a mistake, which you will do occasionally despite the best of care. And you will have them longer if you do make a ten-strike.

In conclusion, I repeat what you already have discovered, namely that I have no specific principles of university administration to propose. Successful university administration I think, hinges largely upon common sense, tolerance, judgment of men and human nature, ability to recognize competence—even when clouded by idiosyncrasies or other human frailties (all men are not easy to live with—just ask your wife!)—and above all the ability to inspire confidence in one's associates. No one should expect to gain and retain the confidence and loyalty of others merely by reason of the position he happens to occupy. He has to win it by sheer merit and by what he does. He cannot gain the confidence of others unless he can demonstrate his confidence in them. He must be able to develop team work and good personal relations in which each individual thinks of himself as an important member of the team and is not only willing but eager to carry always even more than his share of the load.

A university is a group of scholars, teachers and students, all learners and all dedicated to the proposition that the truth must always be sought; that the true scholar and the most effective teacher is continually seeking it and striving always to develop in his students a similar desire to seek the truth; that the university is society's best place for the testing of ideas—unpalatable at times to some segments of the public though they be; that while the right to teach the truth as one sees it must always be maintained; even more important is the right of students to learn—the right to challenge what someone else may say or believe is the truth—be he teacher or layman—if one's own reasoning indicates doubt.
The universities of our respective states are the people's most precious possessions. Upon what these institutions do in the education of succeeding generations more than upon any other thing, depends the welfare of society. That places upon us, teachers and administrators alike, in whose hands the welfare of our respective universities temporarily rests, a very grave responsibility. We may falter, we may stumble, we may make mistakes, but our universities go on forever — the better or the worse for our temporary stewardships.

(The Chinese Philosophy of the Family.)

These then, gentlemen, are some of the things I have learned — some of the philosophies of university administration which I have developed over a considerable number of years. They are the result of my own experiences and observations. Whether they are the best that might have been developed from that experience I am somewhat doubtful. Whether they would be different had my experiences been different or whether they will work elsewhere, I do not know. I can only say that when I look about this campus and reflect upon the accomplishments of this faculty since I have known it, I believe I can discern here results for good through the application of these philosophies. In all humility I commend them to you who are administrators and to you who some day will be, as worthy of your reflection.

And in even more humility I am grateful to those who have permitted me to be a member of this team.

* * * *
AGRICULTURE IN A FREE ECONOMY

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American agriculture as we know it today - or at least as we knew it until a few years ago, has been built in a free economy and almost entirely by private enterprise. For more than three and a half centuries with neither interference nor direction from anyone, the American farmer has been free to do with his own equipment, his own labor, his own planning, on his own land, or on land he controlled by lease, that which his own judgment, knowledge and intelligence indicated was the best for him to do. He knew and everyone else knew that his welfare and that of his family was largely in his own hands. What he did, rather than what someone else did, was the controlling factor in his success.

To be sure, he could have the benefits of education and research provided by his state and nation and largely financed by public funds, but whether he availed himself of this knowledge and applied it to his own enterprises was for him to say. He was indeed his own master - benefitting or not from such outside forces - as he saw fit. He was even free, if he wished, as one of my good California farmer friends once put it, "to do what he wanted to do whether it was good for him or not."

This was free enterprise in agriculture at its best and it gave rise to the traditional independence of the farmer so widely recognized and so often admired. It worked pretty well, too, up to the time - roughly speaking - of World War I. It worked fairly well because, until that great world catastrophe, most of agriculture's problems were to be encountered and their solutions found, within the farmer's own farm fences and largely by himself. Over the decades there were, of course, economic cycles - ups and downs - good times and bad times, the causes of which were often

Address before the Berkeley City Commons Club, January 23, 1959
not very well understood and various schemes and movements were proposed and advocated from time to time by farmers as well as by others — largely political in nature — to cure these ills.

Farmers didn’t worry much about markets for their products as they pushed westward with the advancing frontiers. Markets were to be found at hand or in the ever-growing and expanding urban centers of the East as industry and commerce grew. If these centers could not absorb their surplus production, European countries were happy to take it in payment of interest and repayment of capital they had supplied for the building of this young nation.

There were some difficulties, to be sure, and some economic disturbances encountered along the way, as when the center of winter wheat production moved from the Genesee Valley in western New York to Kansas, Nebraska and other midwestern states following the Homestead Act which opened up for settlement that great agricultural area in the post-Civil War period. But so far as I know, no one seriously considered price supports for New York and Ohio wheat growers to enable them to compete with Kansas and Nebraska farmers, whose land had been given to them by the government and who could grow not only better milling wheat but cheaply enough to pay the freight on it to eastern markets and sell in competition with eastern wheat farmers. This seriously affected land prices in the eastern wheat belt for many years. Even I can remember when a fairly good-sized farm in western New York could be bought for less than the replacing cost of the house, barns and other improvements on it.

In tracing these early developments in agriculture, it is interesting and, I think, significant to note that not until World War I, was much attention paid in our colleges and universities to the economics of agriculture except as a segment of the general economy, and not until that period did these institutions, especially
the colleges of agriculture, begin to establish departments of agricultural economics. It is also interesting to note that these early efforts in agricultural economics, with a few exceptions, took the form of farm management rather than marketing - again illustrating the fact that the farmer's problems even at that time lay predominantly in the field of production.

With the upheaval in the world's economy by World War I, the farmer was among the first to be caught in its toils. The "agricultural depression" brought home to him as never before, the cold, hard fact that no longer was he isolated from or immune to, the effects of economic crises in other segments of the general economy of his country. No longer was his welfare and his destiny so largely in his own hands. What happened outside his farm fences became more troublesome than what happened within and he as an individual was unable to cope with them alone.

In their plight American farmers turned to government for help. Pleading their cause in their respective state legislatures and especially in Washington, they persuaded the executive to foster, and the legislative branches of government to enact, legislation designed to help move to market the extra supplies of food that were piling up on farms and in elevators and which were no longer needed to feed ourselves and our allies, once the war was over. In an attempt to meet this situation the Congress established in the mid-twenties the Federal Farm Board and appropriated the then staggering sum of $500,000,000 to take this surplus food out of the normal channels of trade and dispose of it in a more orderly fashion, with the hope that when this was done, the normal markets with some improvements, that had functioned before would again take over and all would be well once more.

One important contributing factor in this situation, however, if not overlooked, was certainly not fully evaluated at the time. With the beginning of the war in 1914 and especially when America became involved in 1917, great efforts were inaugurated to increase agricultural production in order to insure an adequate supply of food and raiment for ourselves and our allies. "Food will win the war" was the patriotic
and production-stimulating slogan of the day. More land was brought into cultivation, agricultural science and engineering skills, the increased use of mechanical and electrical power, and here in California and elsewhere in the west, increased use of irrigation waters— all were mobilized and used as never before to increase the output of American farms.

Agricultural education and research were speeded up. The Agriculture Experiment Stations were enlarged by increased state and federal appropriations. The State Agricultural Extension Services were established to bring instruction in agriculture and home economics directly to the farm and farm home, through local groups of farm men and women, organized by the County Agent or Farm Adviser and called County Farm Bureaus. Congress passed the Smith-Hughes Act to encourage and help pay for instruction in agriculture and home economics at the high school level. We even worried a bit because so many young people were leaving farms to take better jobs in cities, and we had some "back to the farm" programs designed to slow down or even stop this rural to urban migration.

In short, a great many things were done under the impetus of war, to expand and increase the efficiency of America's agriculture plant. Notwithstanding that hindsight and subsequent experience may support the contention of some, that our agricultural plant was over-expanded and certainly thrown somewhat out of balance with other segments of the economy during that period, no one, I think, would contend today that those things should not have been done. Food did help win the war. But war is not only a terrible thing, it is a costly and wasteful enterprise. It demands its price. If land prices went too high, if farmers went too deeply into debt to buy more land under the lure and hope of continuing high prices for farm products, that event, tragic though it be, was one of the prices demanded by war. The time to think seriously of the costs and wastes, not to say the futility of war, is before it happens. That, together with the fear of annihilation in this nuclear age, is why we are now devoting so much time, energy, thought and resources toward its prevention.
When war came the second time, first in Europe and Asia in 1939, and to us in 1941, we did much the same things in agriculture as we had done in World War I—only more effectively and over a longer period of time. Again we did everything we could to make the farmer more efficient and his plant more productive. We again expanded and speeded up research and education. We greatly increased the mechanization of farms to meet the shortage of human labor. We increased the efficiency of farm machines as well as their numbers, kinds and uses. We increased the use of fertilizers, insecticides, fungicides and other chemicals in agricultural production.

Thus, twice within the memory of many persons in my audience today, under the stimulus of war, agricultural science, engineering skills, improved techniques and electrical and mechanical power have been mobilized in a very short time and directed toward making the American farmer more efficient as an operator and his soils, plants and animals more productive both in quality and in quantity.

But during World War II and subsequently, a new factor—price supports for basic crops—was introduced which stimulated and encouraged the farmer in a very tangible and profitable manner to exert his utmost to increase his production and this helped also to assure a good supply of food for the Western powers.

A good measure of the effectiveness of all these efforts, both scientific and technological, is to be found in the fact that whereas in 1910 one farm worker in America produced enough to feed 8 persons, by 1950 one farm worker was able to feed 15 persons. With the rapid growth of population which we have had since the close of World War II and which still continues unabatedly, it is estimated that by 1975 he must do even better. By that time he must feed 21 persons if we are to maintain the present levels of the national diet, to say nothing of improving them.

When World War II was over, despite all the shortages of labor, tools and supplies during that period of hostility, we had a far more efficient and extended agricultural plant than we had at its beginning. Again the nation was faced with very difficult adjustments to bring agricultural production in better balance with market outlets. Again the Congress set about making the necessary revisions in
legislation to help promote such adjustments through attempts to expand market outlets both at home and abroad and by attempts to decrease the total output of farm products. A pretty good pattern was developed, too, but before it could be put into effective action, the Korean incident occurred.

Under the apprehensions of the Korean conflict, and the general uncertainties in the international situation ever since, Congress postponed putting into effect the plan it had previously prepared to reduce the stimulating effects of price supports and certain other means it had used successfully during the war years to promote increased agricultural production.

In the meantime many farmers had made large investments in herds and flocks, in land and especially in equipment, to increase production at the government's behest during the war. It is not altogether strange that in the face of declining prices for their products some farmers still looked to the government to supply markets for all they could produce, at least until they could reduce or pay off their debts.

This is the situation in which we still find ourselves today. An ever-increasing efficiency on American farms through the use of ever-improving techniques, ever-better varieties of plants and animals, ever-better and more machines, ever-expanding and improved irrigation practices and ever-improving farm management procedures— all without a corresponding expansion in market outlets to absorb this increased production of food and fiber. We are still able to produce more than we can sell in the present market. Surpluses continue to accumulate in granaries, elevators, warehouses, cold storage plants, at astonishing costs to the public and with a depressing effect on farm prices. In his State of the Union message the other day, the President reported that we now have in storage some 9 billion dollars worth of surplus agricultural products at an annual storage cost of 1 billion dollars.

I have great respect and sympathy with the plight of many farmers these days. I come from the farm myself and have devoted my entire adult life to agricultural
research and education. I have played some role in this and other states in helping to make agriculture more efficient. Some may say, albeit thoughtlessly, that we have learned how "to make two blades of grass grow where one grew before" without a good market for even the first blade. But will anyone seriously contend that in this day of widespread improvements in industrial technology, we should not continue to strive for similar improvements in agriculture; that we should not continue to strive to reduce the costs of food production by the greatest use of science, improved technological skills and good management practices? The time is long overdue when we have got to come to grips with this "agricultural problem" in a more effective manner than we have been doing in the recent past; but I am quite certain of one thing - the answer to this problem is not to be found in less efficiency on farms.

I believe that American agriculture is at the crossroads. Its future lies in one or the other of two directions and I believe it must soon make the choice. Either it must return to the private free enterprise and competitive economic system or it must be content to accept more and more government control. A farmer cannot continue to demand fixed price supports or other means of guaranteeing his cost of production plus some profit, regardless of his ability or lack of it, without accepting some control or limitation of his total output. And something more definite and effective than mere acreage control or diversion of land to other uses is needed, in light of the demonstrated opportunity which the farmer has of diverting his less productive acres to a soil bank or other reserve, and then producing just as much, if not even more, from his undiverted land by the employment of better farming practices. In any case, if he looks to government for any kind of subsidy, he must inevitably accept government control.

I cannot believe that a government controlled agriculture will be good either for farmers or for the nation. Each year farming becomes more and more industrialized. It becomes more and more a business or an industry, and less and less a way of life. It is subject to the same economic forces that affect other industries, and it is so closely connected with and related to our other industries that its
and their welfare are mutually interdependent.

For instance, for the 10 million farm workers on farms in this country in 1950, 9 million other workers were engaged in processing and distributing farm products; and 6 million more were engaged in producing the things which farmers buy and in servicing them. Fifty years ago farmers produced most of their own power - horses and mules; they raised most of their own power-producing fuel - corn, oats and hay; they depended mainly on farm-produced fertilizer. Today farmers need each year some 7 million tons of steel, 50 million tons of chemical fertilizer, 16 to 17 billion gallons of crude petroleum, 320 million pounds of raw rubber, and they use 15 billion kilowatt hours of electrical power. They must have a good cash income to pay for these things, else they do not buy them.

Farming in America today is a business. It is becoming more so each year. And yet as a nation, we seem to be reluctant to recognize this. We seem to be hoping that in some way we can maintain the most basic of all industries on a pattern different from that which has become widely accepted and used in our other industries.

I submit, gentlemen, that we have got to return agriculture to the free competitive enterprise system. If we do not, it will become more and more controlled under government regulations and ultimately may set the pattern for and the stimulus to pull, other segments of industry into the orbit of a controlled economy. Agriculture is particularly vulnerable to the "Lorelei" of "stateism" - witness the collectivized farms of Russia, and the "communes" of China - for food is the most essential element in the sustenance of life and people will ultimately demand that their government take steps to assure it if they cannot get it otherwise. A state-controlled agriculture could be the first step toward a state-controlled industry.

I suggest that what America needs is still fewer but better farmers willing to take their chances in a free market and the best way to get them is through a free and competitive private enterprise system, accompanied by continued education and research. Any people raises its standards of living in proportion to its ability to free from the production of the bare necessities of life - food, shelter and
raiment — an ever-increasing portion of its population. This has been going on in America since colonial days. As agriculture techniques have improved, we have reduced the percentage of our total national labor force required on farms from perhaps 85 per cent at the time the nation was formed, to less than 11 per cent today. In contrast, the primitive techniques still used in agriculture in the Orient and elsewhere require from 80 to 85 per cent of those nations' total labor force. Over the decades as agricultural techniques have improved in this country, there has been a steady and continuous migration of people from farms to cities to make other things we use daily and to provide a host of services which we almost take for granted — in short, to raise our standards of living.

One cannot read the papers or listen to the radio and other news reports these days, however, without realizing that we have not yet brought about the changes and readjustments in American agriculture necessary to bring our national production of food and raiment within reasonable balance with market demand. Acreage allotments, payments for diversion of land to other uses or reserves, and rigid price supports are still the principal tools being used to accomplish this needed purpose despite their demonstrated ineffectiveness.

There can be no doubt that there is still need for government aid in this perplexing problem and its help and guidance in bringing about the adjustments that are long overdue. But adjustment to the changed conditions, not prolongation of methods and measures that maintain the inefficient or marginal farmer on marginal land, is needed if agriculture is permanently to prosper and in turn contribute its share to the health of the nation's general economy.

Rigid price supports work at cross purposes, rather than help, some of the other mechanisms of adjustment which we have been trying to use, such as diversion of crop lands to pasture, farm wood lots, a soil bank, or to other purposes. Rigid price supports tempt the farmer to seek increased production on his non-diverted acres, thus resulting in almost if not quite the same total output as before. Flexible price supports, on the other hand, afford a means of smoothing out the
peaks and valleys of production, thus making downward adjustments in production more gradual and in turn stimulating production when supplies threaten to fall below market needs.

The function of government, it seems to me, should be at all times to foster a healthy and free economy — not to attempt to control it, and this applies to agriculture quite as much as to other segments of the nation’s economy.

In the long run — and that is what we should be thinking of and planning for — as we struggle with some immediate problems of the day, we can have a prosperous agriculture only through increased efficiency accompanied by increased use of science and technology in a free and competitive economic system, the system that has made America what it is today. Lincoln once said this nation cannot long exist half-free and half-slave. I submit that its general industry cannot thrive nor the general welfare advance if one segment of it — and the most basic, too — is to be directed and controlled by government.

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