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University of California
Berkeley, California

Western Mining in the Twentieth Century
Oral History Series

Donald Dickey

THE ORIENTAL MINE, 1938-1991

Interviews Conducted by
Eleanor Swent
in 1989 and 1991

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a modern research technique involving an interviewee and an informed interviewer in spontaneous conversation. The taped record is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The resulting manuscript is typed in final form, indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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It is recommended that this oral history be cited as follows:

Donald Dickey, *The Oriental Mine, 1938-1991*, an oral history conducted in 1989 and 1991 by Eleanor Swent, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1996.

Copy no. 1

Donald R. Dickey, 1971

Cataloging information

Dickey, Donald (b. 1924) Mine owner and operator

The Oriental Mine, 1938 to 1991, 1996, x. 181 pp.

Family background, Simon Jones Murphy, founder, Pacific Lumber Company; father Donald Dickey, Sr., ornithologist; schooling in Europe, Thacher School; teenage flying experience and enlistment in US Navy; Mackay School of Mines, Reno, NV, and a start in mining with his mother; Oriental Mine, Alleghany, CA: 1853-1939, early history, Chinese and Hawaiian miners, Croesus Mining Co., and since 1939; management of a high-grade gold mine: hiring miners, providing food, housing, medical care; shipping doré bars, maintaining security; geological research, treatment of concentrates and environmental protection, developing electrolytic refining of gold, waste disposal, relations with Mine Safety and Health Administration [MSHA] and Occupational Safety and Health Administration [OSHA]; Penobscot Iron Ore Company, taconite mining; trying to sell the Oriental Mine.

Interviewed in 1989 and 1991 by Eleanor Swent for Western Mining in the Twentieth Century Oral History Series. Regional Oral History Office, The Bancroft Library, University of California, Berkeley.

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PREFACE

The oral history series on Western Mining in the Twentieth Century documents the lives of leaders in mining, metallurgy, geology, education in the earth and materials sciences, mining law, and the pertinent government bodies. The field includes metal, non-metal, and industrial minerals. In its tenth year the series numbers thirty-five volumes completed and others in process.

Mining has changed greatly in this century: in the technology and technical education; in the organization of corporations; in the perception of the national strategic importance of minerals; in the labor movement; and in consideration of health and environmental effects of mining.

The idea of an oral history series to document these developments in twentieth century mining had been on the drawing board of the Regional Oral History Office for more than twenty years. The project finally got underway on January 25, 1986, when Mrs. Willa Baum, Mr. and Mrs. Philip Bradley, Professor and Mrs. Douglas Fuerstenau, Mr. and Mrs. Clifford Heimbucher, Mrs. Donald McLaughlin, and Mr. and Mrs. Langan Swent met at the Swent home to plan the project, and Professor Fuerstenau agreed to serve as Principal Investigator.

An advisory committee was selected which included representatives from the materials science and mineral engineering faculty and a professor of history of science at the University of California at Berkeley; a professor emeritus of history from the California Institute of Technology; and executives of mining companies. Langan Swent delighted in referring to himself as "technical advisor" to the series. He abetted the project from the beginning, directly with his wise counsel and store of information, and indirectly by his patience as the oral histories took more and more of his wife's time and attention. He completed the review of his own oral history transcript when he was in the hospital just before his death in 1992. As some of the original advisors have died, others have been added to help in selecting interviewees, suggesting research topics, and securing funds.

The project was presented to the San Francisco section of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) on "Old-timers Night," March 10, 1986, when Philip Read Bradley, Jr., was the speaker. This section and the Southern California section of AIME provided initial funding and organizational sponsorship.

The Northern and Southern California sections of the Woman's Auxiliary to the AIME (WAAIME), the California Mining Association, and the Mining and Metallurgical Society of America (MMSA) were early supporters. Other individual and corporate donors are listed in the

volumes. Sponsors to date include seventeen corporations, four foundations, and ninety-six individuals. The project is ongoing, and funds continue to be sought.

The first five interviewees were all born in 1904 or earlier. Horace Albright, mining lawyer and president of United States Potash Company, was ninety-six years old when interviewed. Although brief, this interview adds another dimension to a man known primarily as a conservationist.

James Boyd was director of the industry division of the military government of Germany after World War II, director of the U.S. Bureau of Mines, dean of the Colorado School of Mines, vice president of Kennecott Copper Corporation, president of Copper Range, and executive director of the National Commission on Materials Policy. He had reviewed the transcript of his lengthy oral history just before his death in November, 1987. In 1990, he was inducted into the National Mining Hall of Fame, Leadville, Colorado.

Philip Bradley, Jr., mining engineer, was a member of the California Mining Board for thirty-two years, most of them as chairman. He also founded the parent organization of the California Mining Association, as well as the Western Governors Mining Advisory Council. His uncle, Frederick Worthen Bradley, who figures in the oral history, was in the first group inducted into the National Mining Hall of Fame in 1988.

Frank McQuiston, metallurgist for the Raw Materials Division of the Atomic Energy Commission and vice president of Newmont Mining Corporation, died before his oral history was complete; thirteen hours of taped interviews with him were supplemented by three hours with his friend and associate, Robert Shoemaker.

Gordon Oakeshott, geologist, was president of the National Association of Geology Teachers and chief of the California Division of Mines and Geology.

These oral histories establish the framework for the series; subsequent oral histories amplify the basic themes. After over thirty individual biographical oral histories were completed, a community oral history was undertaken, documenting the development of the McLaughlin gold mine in the Napa, Yolo, and Lake Counties of California (the historic Knoxville mercury mining district), and the resulting changes in the surrounding communities. This comprises around 120 hours of interviews with nearly forty people.

Future researchers will turn to these oral histories to learn how decisions were made which led to changes in mining engineering education, corporate structures, and technology, as well as public policy regarding minerals. In addition, the interviews stimulate the deposit, by

interviewees and others, of a number of documents, photographs, memoirs, and other materials related to twentieth century mining in the West. This collection is being added to The Bancroft Library's extensive holdings. A list of completed and in process interviews for the mining series appears at the end of this volume.

The Regional Oral History Office is under the direction of Willa Baum, division head, and under the administrative direction of The Bancroft Library.

Interviews were conducted by Malca Chall and Eleanor Swent.

Willa K. Baum, Division Head
Regional Oral History Office

Eleanor Swent, Project Director
Western Mining in the Twentieth
Century Series

November 1995
Regional Oral History Office
University of California, Berkeley

Western Mining in the Twentieth Century Oral History Series
Interviews Completed, March 1996

Horace Albright, *Mining Lawyer and Executive, U.S. Potash Company, U.S. Borax, 1933-1962*, 1989

Samuel S. Arentz, Jr., *Mining Engineer, Consultant, and Entrepreneur in Nevada and Utah, 1934-1992*, 1993

James Boyd, *Minerals and Critical Materials Management: Military and Government Administrator and Mining Executive, 1941-1987*, 1988

Philip Read Bradley, Jr., *A Mining Engineer in Alaska, Canada, the Western United States, Latin America, and Southeast Asia*, 1988

Catherine C. Campbell, *Ian and Catherine Campbell, Geologists: Teaching, Government Service, Editing*, 1989

William Clark, *Reporting on California's Gold Mines for the State Division of Mines and Geology, 1951-1979*, 1993

Norman Cleaveland, *Dredge Mining for Gold, Malaysian Tin, Diamonds, 1921-1966; Exposing the 1883 Murder of William Raymond Morley*, 1995

James T. Curry, Sr., *Metallurgist for Empire Star Mine and Newmont Exploration, 1932-1955; Plant Manager for Calaveras Cement Company, 1956-1975*, 1990

Donald Dickey, *The Oriental Mine, 1938-1991*, 1996

J. Ward Downey, *Mining and Construction Engineer, Industrial Management Consultant, 1936 to the 1990s*, 1992

Warren Fenzi, *Junior Engineer, President, Director of Phelps Dodge, 1937 to 1984*, 1966

Hedley S. "Pete" Fowler, *Mining Engineer in the Americas, India, and Africa, 1933-1983*, 1992

James Mack Gerstley, *Executive, U.S. Borax & Chemical Corporation; Trustee, Pomona College; Civic Leader, San Francisco Asian Art Museum*, 1991

Robert M. Haldeman, *Managing Copper Mines in Chile: Braden, CODELCO, Minerec, Pudahuel; Developing Controlled Bacterial Leaching of Copper from Sulfide Ores; 1941-1993*, 1995

John F. Havard, *Mining Engineer and Executive, 1935-1981*, 1992

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George Heikes, *Mining Geologist on Four Continents, 1924-1974*, 1992

Helen R. Henshaw, *Recollections of Life with Paul Henshaw: Latin America, Homestake Mining Company*, 1988

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Lewis L. Huelsdonk, *Manager of Gold and Chrome Mines, Spokesman for Gold Mining, 1935-1974*, 1988

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Arthur I. Johnson, *Mining and Metallurgical Engineer in the Black Hills: Pegmatites and Rare Minerals, 1922 to the 1990s*, 1990

Evan Just, *Geologist: Engineering and Mining Journal, Marshall Plan, Cyprus Mines Corporation, and Stanford University, 1922-1980*, 1989

Robert Kendall, *Mining Borax, Shaft-Freezing in Potash Mines, U.S. Borax, Inc., 1954-1988*, 1994

Plato Malozemoff, *A Life in Mining: Siberia to Chairman of Newmont Mining Corporation, 1909-1985*, 1990

James and Malcolm McPherson, *Brothers in Mining*, 1992

Frank Woods McQuiston, Jr., *Metallurgist for Newmont Mining Corporation and U.S. Atomic Energy Commission, 1934-1982*, 1989

Gordon B. Oakeshott, *The California Division of Mines and Geology, 1948-1974*, 1988

James H. Orr, *An Entrepreneur in Mining in North and South America, 1930s to 1990s*, 1995

Vincent D. Perry, *A Half Century as Mining and Exploration Geologist with the Anaconda Company*, 1991

Carl Randolph, *Research Manager to President, U.S. Borax & Chemical Corporation, 1957-1986*, 1992

John Reed, *Pioneer in Applied Rock Mechanics, Braden Mine, Chile, 1944-1950; St.Joseph Lead Company, 1955-1960; Colorado School of Mines, 1960-1972*, 1993

Joseph Rosenblatt, *EIMCO, Pioneer in Underground Mining Machinery and Process Equipment, 1926-1963*, 1992

Eugene David Smith, *Working on the Twenty-Mule Team: Laborer to Vice President, U.S. Borax & Chemical Corporation, 1941-1989*, 1993

Simon Strauss, *Market Analyst for Non-ferrous Metals and Non-metallic Minerals, Journalist, Mining Corporation Executive, 1927-1994*, 1995

Langan W. Swent, *Working for Safety and Health in Underground Mines: San Luis and Homestake Mining Companies, 1946-1988*, 1995

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Alexander Wilson, BHP-Utah Minerals

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William Humphrey, *Mining Operations and Engineering Executive for Anaconda, Newmont, Homestake, 1950 to 1995*, 1996

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Goldstein, Dennis
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Capay Valley General Plan
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Ceteras, John
Tindell, Avery

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Government Officials, cont.

Corley, Jay (Napa County planning commission)
Cornelison, William (Lake County Superintendent of Schools)
Drummond, John (Lake County schools attorney)
Hickey, James (Napa County planning department)
Moscowite, Harold (Napa County supervisor)
Parker, Marily (Cobb Mountain school teacher)
Thompson, Twyla (Yolo County supervisor)
Wilcox, Walter (Lake County supervisor)

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INTERVIEW HISTORY--Donald Dickey

Donald Dickey, whose family owned and operated the Oriental Mine since 1938, was one of the first to be recommended as an interviewee in the oral history series on Western Mining in the Twentieth Century. The mine, in Alleghany, California, is historically significant. Is it the northernmost mine of the Mother Lode, or does it belong in a category all by itself? is a question which California mining enthusiasts debate with energy. For well over a century it has produced sensational specimens of gold filaments and crystals in white quartz which are displayed in many museums. The Oriental may be the oldest continuously operated underground vein gold mine in California. Its name derives from the Chinese miners who came to the Sierra Nevada during the earliest days of the Gold Rush.

Donald Dickey, articulate and broadly experienced, tells the story of the mine and its environs from the special viewpoint of the contemporary small mine owner and operator. It has always been a near-miracle to find a "jewelry store" or a bonanza inside a remote mountain and exploit it economically. Today it is a further challenge to hire trustworthy employees and provide for their welfare while extracting minerals with minimal impact to air, water, and wildlife. Dickey has done all this for fifty years.

An invitation letter to participate in the oral history series was sent in February 1989 and a planning meeting took place at the Dickey home in Alleghany on 28 April 1989, the day following the presentation of the Lewis Huelsdonk oral history, *Manager of Gold and Chrome Mines, Spokesman for Gold Mining, 1935-1974*, in Nevada City, to members of the Oakland Museum History Guild and Nevada County Historical Society. My husband and I spent the night at the Grass Valley home of Robert and Jean Shoemaker, longtime friends and mining industry colleagues of the Dickeys, and then drove to Alleghany, following historic Route 49 towards Downieville, crossing the South and Middle Forks of the Yuba River, then following Ridge Road to Alleghany. It is easy to imagine the hundreds of hopeful miners who have worked these streams since 1849; even now, after a storm there are weekend "snipers" in the creek beds looking for gold.

From Alleghany, the road to the Oriental goes down the side of the Kanaka Creek gulch, named for the Hawaiians who first worked there nearly 150 years ago. Donald and Hisae Dickey's house is tucked in among the surface workings of the mine, clinging to the mountainside. We toured the mill and refinery, and then back at the house we looked at stunning gold specimens and photo albums of African safaris. After a delicious Japanese dinner we sat for a long time around a fire in the stone fireplace, and reminisced about shared friendships and experiences. We slept in a wood-paneled bedroom, soothed by the sounds of the rushing creek and wind chimes. An idyllic and romantic life, it seems--but that is the visitor's judgment, when the snow has cleared and there is no work to do.

In addition to the hard work of keeping a mine operating, there are real risks to take. The nearest doctor or hospital is far away over mountain roads; law enforcement is also distant. There are people who move to these areas to get away from the rush of city life, and others who are literally outlaws, such as the marijuana growers whom Donald Dickey calls the "Future Farmers of America," who ruthlessly protect their enterprises.

Donald and Hisae successfully lead a sort of double life. At the mine, they are contented wearing Levi's and working hard. Hisae devotes herself to her husband and her akita dogs. When it is time to pour a doré bar, she puts on welder's glasses and asbestos gloves and lends a hand in the refinery, helping to tip the liquid metal out of the crucible into a mold. It is a dramatic change to see them in their sophisticated San Francisco apartment with its decorative accents from Japan and Africa, including an elephant foot, an oryx head, and a leopard skin.

Four interview sessions were held. The first was 11 July 1989, morning and afternoon at the apartment on Sacramento Street, with a break for lunch at a nearby sushi bar. The second interview was 10 August 1989, also at the San Francisco apartment. The third was the afternoon of 21 February 1991, prior to a meeting of Sierra Section of SME/AIME in Nevada City, for the presentation of the oral history of James Curry, Sr., *Metallurgist for Empire Star Mine and Newmont Exploration, 1932-1955; Plant Manager for Calaveras Cement Company, 1956-1975*. We met for the interview in Jack Havard's guest house in Nevada City. Havard was interviewed later for his own oral history, *Mining Engineer and Executive, 1935-1981*.

The Loma Prieta earthquake of October 1989 interrupted the interviewing. It was also a time when Dickey was negotiating for sale of the Oriental mine to an Australian company. In the end, he took it back and continued to operate it himself until 1995. When we held the final interview session in San Francisco on 13 March 1991, there was still much evidence of the earthquake in scaffolds and street repairs.

Eleven hours of taping covered only a portion of this varied career. We did not review his experiences as an automobile test driver and racer, nor as a white hunter in Kenya, nor his time spent in the Philippines. We did record some information about ornithologist Donald Dickey, Sr., whose renowned collection of birds is at the University of California at Los Angeles, and about the family connection to the Pacific Northwest lumber industry and the Minnesota taconite mines.

The interviews concentrated on the Oriental Mine, the earlier history which Dickey knows well, and the contemporary history which he has been a part of and which has been little documented. He did pioneering work with Robert Shoemaker on electrolytic refining of gold. He has acted as spokesman for the gold miners of the region in their struggles with bureaucrats and environmentalists. The oral history ends before the final chapter in the Oriental mine story: recent efforts to close the mine, hampered by regulatory restrictions and the scarcity of trustworthy employees.

The transcript of the interviews was sent to the narrator for review in June, 1992, and was returned in June, 1995, with very few changes.

The tapes of the interviews are deposited and available for study at The Bancroft Library, University of California at Berkeley.

Eleanor Swent, Project Director, Western
Mining in the Twentieth Century series

19 March 1996
Regional Oral History Office
The Bancroft Library
University of California, Berkeley

Regional Oral History Office
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BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name Donald Ryder Dickey

Date of birth Nov. 25, 1924 Birthplace Pasadena, CA

Father's full name Donald Ryder Dickey

Occupation Naturalist-Ornithologist Birthplace Dubuque, IA

Mother's full name Florence Van Vechten Murphy

Occupation Homemaker Birthplace Montague, MI

Your spouse Hisae Aoki Dickey

Occupation Homemaker Birthplace Yokohama, Japan

Your children

Where did you grow up? Ojai, CA

Present community Alleghany, CA

Education 4 years college

Occupation(s) Mining

Areas of expertise Underground small vein mining

Other interests or activities Hunting, Photography, Exploration.

Organizations in which you are active AIME & SME

I FAMILY BACKGROUND

[Interview 1: July 11, 1989] ##[1]

Great-Grandfather Simon Jones Murphy, Sr.

Swent: Let's just begin at the beginning with your interesting family. Do you want to begin with your mother's grandfather? It would be your great-grandfather?

Dickey: Yes, it would be my great-grandfather.

Swent: What was his name?

Dickey: His name was Simon Jones Murphy, but that was an Americanized name. The family started in Scotland with something on the order of McMurrough, or MacMurphy, a sept of Clan McDonald. I've been told by my family that on arriving middle-1700s, in New York, they immediately followed other poor Irish-Scottish immigrants into Maine--into the logging and farming business--and started on the Penobscot River, the Penobscot River being named for a group of Indians in the locality.

This gentleman was very small in stature, unlike the current members of my family. He was very agile. He must have been as agile as a cat, because the first job that he was able to get was poling logs on this particular river in the spring runoff, down the river to the tidelands where the mill was. This required few tools. I think all he owned at that time was a pike and probably some caulked boots. That was about the extent of his worldly goods.

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[1]This symbol (##) indicates that a tape or tape segment has begun or ended. A guide to the tapes follows the transcript.

He was a very agile person physically as well as mentally, and he slowly started working his way up through the camp hierarchy there--whatever you want to call it. He had a boat the next thing I heard of him. I'm taking this primarily through a search my mother did of the old records. We found his name in some of the tax records, and we were able to follow them out. We found out that he had gone from a pike to a set of oars, and then, finally, after a set of oars, he had a boat to go with the oars. This continued up--

Swent: And these were taxed.

Dickey: --and they were taxed. They were taxed, and this was the only reason that we saw that he was making a step upward in the area.

Swent: I do think you should tell about the change of name also.

Dickey: Right. I got sidetracked there. The McMurrough was difficult for his fellow workmen to pronounce, and I find that a little hard, because certainly the French and the French Canadians are very good at rolling the "r"s. Well, they didn't roll them the way Great-grandfather liked it, and he decided that they were idiots because they couldn't pronounce his name.

He marched down to the justice of the peace, and he asked for a name. The justice of the peace said, "Well, what name do you want?" and the old man said, "Well, what name have you got?"

The judge decided that he probably had an idiot on his hands, but anyway, he said, "You can have any name you want."

Great-grandfather didn't have a name on his fingertips and was sort of having a difficult time, and so the judge said, "Well, you have womenfolk in your family?"

"Of course, man, what's the matter with you?"

He said, "Well, then, I suggest that you pick a name with `M,' because if you have any sheets or the ladies--womenfolk--have anything, they certainly will have their name embroidered or initial embroidered on it."

Well, that struck a bell with Great-grandfather, and he decided that that made sense, because he did have a few things that had initials, so he said, "What do you have in the way of M's?" That was the time it came up that the JP said, "How about Murphy?"

It's been difficult for my family to live this down, because normally a Scot and an Irishman don't always see things quite that easily as far as changing a name, but we took on the name Murphy, and he became Simon Jones Murphy at the time. He worked there in Maine for many, many years. I have in the records somewhere what time or what later part of the century that he started west. But he started west into the woods of Wisconsin and Minnesota, and through Michigan also--the Upper Peninsula. By that time he was in a position to actually start a show in the logging business and run it himself.

Swent: Do you know any dates?

Dickey: I don't have that right now. Of course, I have it in my files and all, but I can't tell you. It would be, probably, in the 1870s, I would guess.

Swent: After the Civil War?

Dickey: Yes, after the Civil War. Eventually he worked his way all the way across the United States, which I'll get into later.

By the time he hit Michigan and Green Bay, there was a tremendous stand of white pine, a tree that I'm not familiar with. It's similar, I think, to some of our pine, but it's different, and it was much in demand at the time in housing, drainboards, doors, all kinds of things. Well, he stayed there and raised his family there.

My mother was born in a little town, Montague, Michigan. My mother was educated there as much as was usual in that day. I think women were frowned on their entering college, and I believe my mother went to a finishing school, a school called Kemper Hall. I don't really know. It would have taken the place of high school and early college as well as finishing school.

I brought up my grandfather's name primarily because, somehow, through his ideas, I have learned a tremendous amount about ecology, and a love of the land, and an appreciation for land as such. He was a man who, of course, represented the unlanded gentry. As he came across the United States, his contemporaries said, "Murphy, you've got to give up this land now. You have to move on with us. We're going west. You've cut all the primary growth timber. Don't try to hang on to the land." My grandfather was so hardheaded that he wouldn't listen to them, and he made a very strong attempt, and a successful attempt, to hang on to the land and make it perform in a manner other than just growing timber.

I believe he was the first person, or the first person that I know of, that recognized the necessity of sustained yield when it came to the cultivation of trees, as an ongoing project. This was born of the fact that he had never been allowed to own land, and he just refused to give up. So he tried to make the land reproduce, reproduce, reproduce, and he brought this all the way to the West Coast.

When he had run out of timber, or timber that was readily available at the time, he wound up here in northern California and put in the largest redwood company, a company that has fallen, I'm afraid, on hard times in the last year or two, but a company that maintained up until his death, and up until the deaths of my various cousins and all that ran the company--

Swent: What was the name of this?

Dickey: Pacific Lumber Company. The Murphys controlled it right on up to two or three years ago when Maxxam Corp. forced them out of business in a very unpleasant leveraged buyout that broke the heart of many of the people still related to myself. But at Scotia, it was sort of a paternalistic and oddly run company where the employees were sort of members of a large family, where this pride of land was held above practically anything else. Every year that they logged at Scotia they planted far more trees than they ever cut.

Swent: The same kind?

Dickey: The same kind, the sequoias and all, but not only the sequoias. They also planted all the indigenous trees of the area to support and maintain the ecology more or less in the same condition that it had grown in over the years.

Swent: And he did this before he was pressured into it.

Dickey: He did it--well, I think he built the plant up there in the early 1900s. One of the mills that I remember had "1905" written across it, but he was there in the late 1800s. It was long before anybody thought of it. I think this is the greatest credit to the man. He had the foresight to see that our natural resources were limited, and this was not thinking of the 1800s near the 1900s. Our resources were totally unlimited. You could cut, you could take, you could harvest, you could--whatever you wanted--and Mother Nature would always provide more and more and more. We didn't realize that those days were very limited and that we were going to pay the piper sooner or later.

Trying to keep the family straight is not all that easy, but the various members of my mother's family all remained somehow attached to the land in one way or another. One of my uncles went into ranching, another one followed in the timber and logging business, but they all had some sort of ties back to the land. This really goes back to the old country. It's a respect, I think--nothing more than that. I can't put it any more simply. I don't think at the time they really thought it out, as we do today, the ramifications and problems that we were to face in the future. They knew by protecting what they held, this could only be a positive sort of a thing. Eventually, I get this from both sides of the family, but the grandfather on my mother's side was really the strong member.

My mother's dad wound up running a sawmill in Green Bay, Wisconsin. He was the number one son. I suppose he was sort of a cowboy, because somewhere in his life he had developed a tremendous love for the Western cow pony. I don't know. I assume it was a quarter horse. He liked the quickness of this horse as opposed to the thoroughbreds of the East, you see. He used to keep this horse ready to jump on and disappear into the sunset. He was mayor of Green Bay, and as mayor he officiated at all fires. In reading a little of his history, I can't help but compare him a bit to LaGuardia in New York, in my early youth, who was always charging off into fires.

Swent: So it was Great-grandfather who came into Scotia.

Dickey: Yes, I've shortened the generations a little bit, not meaning to.

Swent: Great-grandfather came on out to Scotia.

Dickey: Right. He wound up at Scotia.

Swent: And Grandfather started in Wisconsin and ended up in Virginia.

Dickey: Grandfather started, and ended up in Virginia, whereas one of his brothers came out, you see, and eventually took over. I don't remember. Great-grandfather died in 1905. I did not know him. I knew my grandfather, we'll say, for two or three years, but my memory is so foggy. Part of my knowledge must come through my mother telling me stories of the family and all.

Swent: It must have been a very dominant personality that would have come through.

Dickey: They were very strong. Adversity held no fear. Later in our talk, I think I can explain that this has been, probably, one of the leading points of my mother. My mother, who was a lovely

Victorian lady and played all the part of the lady of her day, still had this incredible strength. I remember, I made the mistake once of saying, "Mother, you can't do that."

My mother turned on me, and I thought she was going to swat me across the mouth. She said, "There's no such word in the English language as `can't,' and don't you ever forget it."

Well, later on--many, many years later--when the two of us were running this mining company, I would be faced with making the payroll or coming up with some coin of the realm that I didn't happen to have in the bank. I would go to my mother, and I would say, "Well, it looks like we're really in trouble. We can't make the payroll."

And she said, "There's that damn word again. You don't use that." She was always right. The laws of probability would have been that she would have been wrong at least half the time. Something would happen--a check would come in from the state comp [compensation board], or a dividend would come in, or the smelter would make a settlement that we hadn't counted on--they made an early settlement, we'll say. She was right. It was just uncanny, but this positive attitude--you just keep pushing ahead. You don't feel sorry for yourself; you don't make excuses. You just keep after the goal.

Part of this also goes back to my father's side of the family. I don't mean to give my mother all of the credit, even though the two of us were partners, as you know, for so many years. I leaned far more heavily on her than I did on my dad. My dad was at least as big a character. His family also were involved in natural resources, but a completely different side. He was a--well, let me get it straight. This time it'll be grandfather. They came from Des Moines, Iowa. He was a businessman. He started on the river.

Swent: Do you know any first names? We should perhaps pick up--

Dickey: Well, his name was Ernest Dickey, and her name was Anna Ryder. Dickey--his wife became Dickey. He worked for a company called the Diamond Joe Ryder Line. It was a tugline or a shipping company, a very modest--I'll say tug--company that freighted barges up and down the Missouri River carrying, primarily, wheat. This would have been in the late 1800s-early 1900s, but the late 1800s.

Wheat was in demand all over the country, obviously, and had to be transported. At that time, it was being transported by barge rather than by trains. The trains really hadn't gotten into

the business. They didn't come in until 1868, or something like that, when the transcontinental connection was made. But when it was made, the bulk carrying was still handled by these barges.

Swent: I think they still do.

Dickey: And I think still, in many, many parts of the country--I mean, here in the Bay Area, this bay was covered with barges at one time, and small sailing boats sailing the Delta, bringing in wheat and grain and foodstuffs. Anyway, this grandfather was a businessman, but he started in the job of paymaster. His job was to carry a box of money, I assume. In those days you were paid in cash. You were paid primarily in gold, and he carried a very handsome wooden box up and down the Missouri River. He would start north, we'll say, on a tug. He would pay the crew of that tug, and as soon as he saw another tug of the same line going south, they would signal, and he would be put in a small boat. He would go to that tug, and he would pay them. Well, then, he was headed south, you see. He might come back to Des Moines. Obviously, he had to come back and replenish his supply of golden eagles or something, but he spent the early part of his career traveling north and south continuously paying off people.

Swent: I suppose that was a risky job.

Dickey: It must have required a strong character, both for security reasons and because he was obviously very well trusted by the company. But as you remember from your history, many of the paymasters, many of the--what would they be called today?--comptrollers, were of Scottish background. I can't tell you why. They were a breed. They were very tight with their money, of course. They figured everything down to the last penny, and they made the bank's book balance. They were given credit for this. This chap was actually more on the English side than the Scotch.

But anyway, I'm looking across the room, and that's his paybox up there [pointing to wooden box], that handsome box, and he dragged that with him up and down the Missouri. It opens up into a desk, and there are hidden compartments in the bottom. You have to poke them with a needle or a nail or something, and then a drawer opens. That's where the goodies were kept.

Swent: It's bound in brass.

Dickey: Bound in brass and, I don't know, some hardwood or something. I can't believe that he just dragged it in his arms. It must have fitted in another--some sort of a container, maybe canvas or something like that. But this is the way he started.

Swent: What size--twenty inches?

Dickey: Something, about twenty. I don't think it's a full two feet. It's quite heavy. It's a heavy wood. It's an ironwood or a teakwood, something like that.

Swent: Filled with gold, very heavy.

Dickey: Filled with gold, so it has two brass handles on the end so two men could carry it. He could have had help in dragging it up to the captain's room or something like that--whatever he used as an office. I don't think these tugs were particularly well-fitted out. I think part of the crew slept on deck. They were steam-powered, as I remember, and dirty as can be. But this was a method of--instead of calling the men back to the head office, the tugs just kept plying their way on the river. Sometimes they would turn back if they didn't have a load they sold up and down the river. This was his job.

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Swent: So he started in Maine, and then he went west.

Dickey: He traveled west with probably many members of the crew that he had been working with. He had become at least a straw boss or a leader, a foreman, and when he arrived in Wisconsin, he actually built a mill. He acquired enough backing, or wealth, or wherewithal that he was able to go into partnership with other lumbering people. He built a mill in Green Bay cutting almost exclusively the white pine that was so well-known in those days. There was tremendous building, of course, going on in the East, and this white pine was their structural wood of the day, I guess. I assume it was similar to the usage that we put Douglas fir to out here in the West. I don't think we have the same tree out here. Certainly, we have all kinds of pine, but we don't have that. He spent many years there, and he started raising his family there. As the family grew, the sons entered into the business with him. My mother's father, being the number one son, was put in the harness immediately, as soon as he was old enough, and went to work at the sawmill.

Grandfather Simon Jones Murphy, Jr.

Swent: What was his name?

Dickey: Simon Jones Murphy, Jr. He became Junior and kept the name going. He became somewhat of a politician. He was a mayor of Green Bay for a while.

My mother told an amusing story. It didn't turn out to be amusing, but, at the time, he sort of thought of himself as being part cowboy. Now, I don't know why you would pick this up working in the woods, but, anyway, he loved horses. He had a cow pony--I assume it was a quarter horse. The horse had been trained in the use of cutting cattle and all, and one of the traits the horse had was the fact that it was ground-tied. When you threw the reins down, the horse stood, and the horse stood through thick and thin. You could go about your business and come back and expect to find your horse standing there. This didn't happen to most of the thoroughbreds, of course, or the Morgans and the other horses that were being used at the time. They took off as quickly as you let go of them.

My grandfather was having dinner one night with a group of people from Green Bay, and the fire bell rang. He bolted away from the table, which of course disturbed his wife a great deal, but he was in the constant habit of doing this, so she put up with it. He jumped on his horse, and he raced downtown--three blocks away, we'll say--to where the opera house was burning. The opera house was probably the lead building and the only social saving grace that the town boasted at the time. It was rather important they get the fire put out. Grandfather tore up to the back end of the building where all the electrical wiring was on the outside of the building. He got there and jumped off his horse just in time to have the wall come down upon him. The electrical wires were still hot, and they came down and killed the horse. The horse in turn tipped over and pinned him to the ground, smashing his legs, I believe, and rendering him a cripple.

As he had been in charge of the mill in this area, the family--mainly the old man, Great-grandfather--called the sons together and said, "Well, we've lost one of our members, but we will go on. Simon, Jr., you're going to be replaced with Number Two." Number Two stepped up, and my grandfather was sort of pensioned off. He had a large family at the time, and he had a percentage of the company. He had a small percentage, and on that percentage plus the pension that my great-grandfather gave him, he retired to Virginia. So we became, sort of, Southerners, but really we pretty well tried to take no sides. We were right on the Mason-Dixon Line, and so we were maybe able to take a little bit from both the North and the South.

Swent: Do you have any idea why he happened to go to Virginia?

Dickey: I think that anybody that's worked in the Northeast or the North wanted to get to warmer weather. I think that was the driving force that I see today. I go back to the Mesabi Range now, where I'm a director of an iron ore company, and I see all these young men running around in their shirtsleeves saying how wonderful the weather is, and here it's twenty degrees in the shade, you see, or maybe even a minus number. For them, it's warm in the middle of winter. Well, as you get a little older, you appreciate the sun more. I notice that none of them retire up there. They're all willing to come back in the summer. We have engineers with our company who come back to visit, but they're in Arizona, they're in California, they're in Florida, they're anyplace where the sun shines. I think this is one reason for going to Virginia.

I think maybe another reason was, he wanted to get into some sort of a business that might be self-sustaining. His funds were not such that he could live indefinitely on what he had retired with. After the War Between the States, of course, there was a lot of land that was available, land that had been run with the help of, probably at the time, hundreds of blacks, but now, after the Industrial Revolution and all, equipment was coming in, and tractors. There was an opportunity of operating these land spreads without dependency on so many people. This man obviously had a good mechanical bent to him, and he felt that steam equipment or internal combustion engines could take the place on the farm and displace the people that were gone. These huge farms were actually going begging, because nobody knew how to run them without the labor, of course, from the South--the black labor. When that went by the board, this land lost its value because people didn't have the insight to see that they could be farmed. They could be managed with a handful of laborers and machinery.

So he wound up there, and my mother pretty much grew up there. She was born in a little logging town in Michigan--Montague, Michigan. Her sisters--I think there were four sisters and one brother--they were all born in this general area of Michigan, Minnesota, and Wisconsin. Then my mother's family, of course, moved south.

Great-grandfather continued on with the four sons who were left, and there was a large void when you left Minnesota, the timber--there just wasn't any. You were out on the rolling plains, or you were way up in the Rockies. Most of the timber just wasn't suitable for sawmill operation, so they actually came all the way west to settle in California. On the way, I think I should say that my grandfather's respect and love for the land was very much in evidence. He refused to give up land that he had gained title to. This went back to the old days, of course, in Scotland, or in Ireland, where he was not allowed to own anything

in the way of land. He hung on to land north of Duluth in St. Louis county. He was in partnerships with many other men. The partnership today would be more like a corporation, but in those days it was a meeting of men in similar businesses. I doubt if they even had a piece of paper. I think that in the old days a handshake was pretty much the rule. I know it was with my great-grandfather.

Swent: Gentlemen's agreement.

Dickey: It was a gentlemen's agreement. Of course, title was a physical piece of paper. Their names appeared on this, but as far as the agreement of how they were going to log it, where the logs were going, who was going to boss up this particular "forty," as they call it back there, remained on the handshake basis. These partners--when it was time to move on west, they said, "Murphy, you've got to give up your land. I know you talk about land, but you've got to give it up. You can't pay the taxes, and you can't hang on to it and expect to go west."

Well, about that time, half of the men he started with back in Maine were too old to go on. They were not too old to work, but they were too old to want to transport their families and their children. They wanted roots, and they said, "With all due respect, Mr. Murphy, we're going to stay here." Murphy didn't bat an eye. He said, "I've got a few good men that will go with me--some younger men and bachelors, and all that. I'll keep going, but I want to leave something here." What he left was--he converted one of the buildings, we'll say, from the logging show into a small hospital. Then he took another building that had been a bunkhouse or something and turned it into a school.

He tried to make do with all the physical assets that he was going to leave behind. He willed it to this little town called Eveleth, Minnesota. It's just north--it's maybe ninety miles north--of Duluth. It was a godforsaken sort of a country. I've spent--not many years back there but many, many months back there. In the wintertime, when it's really cold, it's probably the most enjoyable, because you don't have all the bugs and the gnats and the rest of it. It's sort of a semi-swampland. In the old days, it had some horrible red dirt that nobody knew what to do with. That was sort of under most of this area where this logging had gone on. This company controlled many hundreds of what they call "forties." In other words, "forty" is forty acres. It's the way they gauged land in those days. "I've got this forty. You have that forty over there. Let's combine the two, and we can run a road between them for hauling logs or so."

But he hung on to this land when everybody else moved west. He paid the taxes, which were minimal because nobody envisioned anybody doing anything on this land.

Swent: The logging had ended.

Dickey: The logging had ended, and this white pine was really all there was--in other words, the rest of the wood, there were some hardwoods, but the hardwoods were used up in fireplaces and things like that. There wasn't enough of it, really, to create another industry. The industry was pretty much gone. They had clear-cut it at that time, you might say, because all of the wood was gone. You were left with these scruffy trees and very poor land.

So he moved on, leaving behind him as much good will as he knew how, and leaving the respect of the men that stayed behind. Later on, we'll get into the story of what that land became, because it became part, again, of my company and my life. But at the time, he was considered a damn fool just for considering paying the taxes.

Founding Pacific Lumber Company

Dickey: He moved on to the West Coast. At the time, there was a growing demand for this odd red wood, named, of course, for the Sequoias. It was not a good structural wood. It was quite poor in structural building, but it had the wonderful ability to prevent rot and bugs, and such things as that. All of San Francisco was growing at the time, and it was just prior to the fire. San Francisco was growing, as well as all the little towns up and down the coast. Redwood became very popular for foundations. It became popular also for sheeting and things where structure was not necessary.

He thought, "Well, this is a good place to settle." He had some experience in dealing with large, large trees. Of course, these white pines were huge trees. The original, first-growth white pine was a huge tree. So the sight of a ten-footer, a twelve-footer, a fourteen-foot redwood, didn't scare him as much as most of the people--the loggers--that had come in from further south. They saw a tree like that, anything over maybe two feet in diameter: "Well, what in the world would we do with it?" This didn't bother Great-grandfather at all, and he started taking up land positions around Scotia.

I believe that early on he named his company the Pacific Lumber Company. It was basically a family-owned company. There were shares that were scattered all over the country, but the family had always been very, very close-knit in that if you wanted to sell your portion of anything they were involved in, first you went to a member of the family. In other words, you didn't go public and throw your stock--or whatever represented your portion --you didn't put it on the market. You had to go first to Great-grandfather and get his blessing, and then you were allowed to talk to the sons, and then it just sort of filtered on down until finally you could find a buyer or something.

Anyway, he started this company. One story I remember--he had a little, what today we would call a small pocket-sized spiral notebook that he kept in his breast pocket. He would get on a horse, and he would go out all through this area around Scotia, buying up pieces of land from a farmer here, a woodcutter here, a logger here. He would write down in this little book what he had offered the man, whether the man had accepted it, when the payment was to be made, were there any long-term payments to be made. All of this business accountability went into this little tiny book. Everything was done by a handshake. There were no legal papers at the time that he made the deals.

He picked up literally--I would say dozens, but even more than that, I would say that he got into a hundred or better--little bits, odd pieces, sections, corner sections, odd pieces of land. He turned it into the huge land base that went on to become the property holdings of Pacific Lumber. He bought several sawmills, small sawmills--peckerwood sawmills, we used to call them. Most of them weren't suited for the type of work he envisioned, and so they were sold for scrap iron here. He bought them at a fair price, gave the owner a fair price, and then dismantled them and sold them. He didn't take them.

After he had made these commitments and these deals, he went to a lawyer. I won't mention the name. They're still going strong in San Francisco, a very good firm. He got a hold of one of the lawyers, and he said, "Now, Mr. Smart Guy, these are the deals, and I don't want you to change one single bit of what I've written down in this little booklet." He took this book out, and of course by that time every single page was cluttered up with all these things. He said, "Now, you figure out how you're going to put it in legalese. Don't you vary one iota, because I have shaken hands, and no figure is to be changed." This poor law firm had to sort out this notebook and had to draw up all the legal papers on this hundred bits and pieces of land, do the title searches, do the surveying to find out if the man was on the land he claimed to be on. My great-grandfather just walked away. He

said, "That's your business. I'm paying you to do it, but don't you change a word of that."

It was at a time, of course, after the railroads had come in. The use of steam in the woods was known. He had used it in Minnesota. They had used donkey engines, which are nothing but a steam boiler connected with a steam engine that drives sort of a capstan. They were able to snake logs with them out of the woods rather than using the standard oxen that Grandfather and Great-grandfather had started with. It was more practical. You had all this trash wood underfoot that you were trying to get rid of, and it was fed into the boilers, both of the steam engines and the other. Steam trackage was put in all through the area up around Scotia. It was, as I remember it, a narrow gauge; it wasn't a standard gauge. Wonderful little locomotives, little--what do they call them?--they were a geared motor that was used. I think it was a Shea. They were able to climb a much higher grade because all wheels were driving, not just the drivers. Every wheel on the locomotive drove, and so they could negotiate mountain trackage that a regular locomotive couldn't.

Anyway, he continued on, to his death, in the woods there. The thing that probably sticks most in my mind was his foresight in planning what we call today "sustained growth."

Swent: Were there other lumber people at that time that were doing these same things. or was he ahead of his time?

Dickey: I don't really think that the sustained yield philosophy--I don't think that was prevalent. I think the "cut-and-flee"--clear cut and get out of there before the tax assessor can ring in another year on you--I think that was the mode of the day. I think that we Americans, at the time, felt that our natural resources were totally limitless. I think <u>everybody</u> believed that. I don't think there were many people like Great-grandfather who, if he didn't see a day way down the line where we wouldn't have such things as these first-growth redwoods, then he certainly envisioned the necessity, within his own little land parcel, of being able to continue growing, growing, growing. So he planted far more trees than he ever cut.

Now, granted, a redwood takes a few thousand years to grow, and he may never have caught up, but I've been told, and I have no reason to doubt it, that the production of wood was greater in his day, and right on up to the present, than the <u>destruction</u> of wood. In other words, if you take a cubic foot of wood--now, granted, you don't wind up with the beautiful big trees that were there when he arrived, but you wind up with this sustained yield. You are putting more back than you're taking out.

That lasted right on up to the forced sale of Pacific Lumber two or three years ago to the Maxxam Corporation. When Mr. Hurwitz or whatever came on this scene, it was one of the tragic chapters, I think, in my family history, because we had tried so hard to do a good job, we'll say. I think we had one of the few companies in the wood business--lumbering business, logging business--that had the respect of all sides. We weren't being hammered on by the Sierra Club. We weren't being talked down by the business community because we refused to cut above a certain planned figure that we could justify and that we could replace as we cut. All of these policies that were set down almost a hundred years ago by my great-grandfather were being short-circuited to pay off junk bonds and such things as this.

Well, of course, as you probably know today from our local papers, the company is in a series of lawsuits. The old hands in Scotia are divided on whether their loyalty should be to the new company or they should just quit and go down the road. It's very sad, because the insight that this old boy put into the work he did there has never been equalled, never been duplicated. But that's behind us. All of my cousins my age now have completely left the industry. One of Stan Murphy's sons is still involved in the direct shipping of logs, I think, someplace on the north coast. But he would never work for the company again. He fought as hard as he could to save the old company, and when he couldn't do that, he quit. He was gone. The other cousin, his brother, is in southern California, still working with wood. He runs a factory making doors, or something like that, out of wood. So our name is long removed, but a sad day.

I think maybe I should jump from the Murphys back over to the other side of the family. I'm not as familiar with them. Obviously, my mother told me far more stories of our side. She was great. She did all kinds of things with genealogy, and somebody bet her that she couldn't get into some club here in San Francisco. She took it on as a personal challenge at one stage of the game. I don't remember what it was. It wasn't DAR [Daughters of the American Revolution], but it was something else. There was some other thing that you could belong to if--you didn't have to arrive on the Mayflower, but you had to go back quite a ways. Some woman challenged her, and that was too much for my mother, so--she did quite a bit of historical work, which was available to me and entered into our conversation over the years. We were the closest of partners. We were partners for fifty years. I was a small boy when I went into the mining business, not because I wanted to but because my mother happened to be there.

Swent: I think you're probably unique. A lot of people go into it because of their fathers.

Dickey: Well, in this case, it was just the reverse of that. This was at a period when a woman was not very highly thought of in the mining business in our part of the community. You have to remember that in and around Grass Valley where we settled, the little town of Alleghany, it was a Cornish camp. It was out of fear. A woman in a mine normally meant that some major cataclysm was going to occur.

One time, out of my own curiosity, I tried to trace that superstition back, because I thought it must go back to the old country, to Cornwall. The line broke when I got to Virginia City and the Yellow Jacket fire. This has been very well documented, I know, at the time, because it was such a horrible disaster. The superintendent's wife had taken two or three ladies down the shaft, and they had gotten to the lower level. As they stepped off the cage, the cry was, "Fire!" The skip tender who was with them reached out--one of the stories was that one of the women panicked and started running down a drift. I doubt that. I think that the man--the skip tender--did nothing more than reach out, probably at arm's length, and grab this woman, and probably not very kindly, pushed her back into the cage, belled the cage up, and these three women made it to the surface. Of course, the cage started back down again, and the shaft timbers had burned through. They didn't make it down to pick up any men. Well, the men blamed it on the women. That's nonsense, and everybody knew it. So why any sort of a superstition should arise out of that, I can't imagine, because you could have gotten three women out, you could have gotten three men out, and it didn't matter. That's all that was going to escape that mine. But the story didn't go back further that I could trace.

Anyway, I've gotten pretty far off the track. Let me go back to my mother's family.

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Swent: So we had gotten Grandfather--this is Grandfather Dickey.

Dickey: This is Grandfather Dickey, right.

Swent: He was the paymaster on the river.

Dickey: We've got him floating up and down the river. Well, he in turn worked his way up in the confidence of the gentleman that ran this company. His name was Ryder, I believe, which also happens to be one of the various middle names that we use in our family. But I don't think there's any tie. I think the spelling was different.

Swent: He didn't marry the boss's daughter?

Dickey: No, he didn't marry the boss's daughter, but he did work his way up. On the death of the company owner-leader, he took over the company, the Diamond Joe Ryder Line, and continued for many, many years running this line and dealing in grains and the transportation of grains.

Swent: Was this pre-World War that we're talking about?

Dickey: Pre-World War I, yes. Let me try to put this better in context. It's very difficult. I'm terrible with specific dates, but his mother was a contemporary of John Muir. His grandmother, too. It would have been my father's mother and my father's grandmother--both were friends of John Muir. I believe Muir was gone by early 1900s. I don't know when he died--I think it was 1905, something like that.

Swent: How had they known him?

Dickey: I don't know, but I know that Muir started back in Wisconsin. That rings a bell somehow. I assume that Grandmother knew him back then.

Swent: Had your Murphy grandfather known him?

Dickey: No. There was no tie to him through the Murphy side. This was only through the Dickey side. This tie--these two ladies, and I have a vast number of pictures of them in odd places with Muir--they were sort of disciples of his, if you could use the term then. I think they were merely intelligent women that were interested in nature. I think it was just as simple as that. This fellow was sort of a leader. He was like a Pied Piper. So much interest in nature came from their side of the family through my father's mother.

Now, they in turn tried to escape the cold of the Midwest in the wintertime. California was the closest area for them to get away in the wintertime. My dad's mother had a house in Pasadena, and somehow Muir also tramped around the foothills of Pasadena. Of course, he would start his voyages in the Sierras someplace down south of Bishop, you know, and then walk the trail. It might take him six months or a year or so, and he would walk this trail. He must have had ties there as well as ties across the bay here where his farm or whatever--home--eventually was. I think later in life he married and lived here.

Anyway, these two ladies were interested in the out-of-doors. They must have imparted some of this interest to my father, but my father felt that he should be a businessman.

Swent: Was he born in Pasadena?

Dickey: My dad? No. He was born on the river in Des Moines, Iowa. The first four years of his life he was in Des Moines. Then, for some strange reason, he went to Chicago for four years, then back to Des Moines almost up through grammar school. Then he came out with his mother to Pasadena.

He was enrolled in a school that I admire tremendously--a school that I eventually went to--called Thacher in the Ojai valley. Thacher was the dream of an Easterner who decided early on that Easterners were becoming pretty stuffy and not insular but pretty narrow in their thinking of the world and of themselves, and felt that a little of the Wild West might get them away from that. He was also having a horrible time trying to figure out how to teach young men, and only young men, responsibility. He came up with this wonderful idea that has been copied many times and I don't think improved on. He decided that a young man should have a horse, and if you have a horse you can't be irresponsible, because that poor horse depends on you. Anyway, my grandmother heard about this and in about 1901, my father found himself put in this school complete with the out-of-doors and a horse. He was there for the four years that Thacher offered. His love of the out-of-doors was reinforced by camping and hunting and living in the Ojai valley, which was really pretty much off the beaten track. It was a lovely place totally devoid of smog and fog and people. It was where land was cheap, and this old headmaster Sherman Day Thacher set up camp.

Well, my father was aiming at a normal business career. His father had told him that he would have to carry on and would be supporting the family pretty soon and better jolly well get a good education. My dad was more or less, if not in love with the idea, certainly responsible enough to realize that that was the way he was headed.

He came out of Thacher in the spring of 1905 and promptly got himself enrolled in Cal [University of California at] Berkeley. I have no idea, I haven't gone back to check any of the Berkeley records as to what department he was in, but I assume that he was just taking a general business course. He matriculated at Berkeley. I don't know what kind of a standing he had there or how well he did, but his time was cut short, because in 1906 San Francisco burned down.

My father had, through his early life and his love of the out-of-doors, acquired a reputation of being an excellent shot. When he was looking for a hobby or something to do in sports, he joined the rifle club. He became very proficient. When the fire started in San Francisco, he was--I don't know what the term would be, whether it would be deputized or whether he was conscripted into the National Guard or some long arm of the law giving him license was placed upon his shoulder. He was brought over here on a ferry and installed, either the second or the third floor room of the Palace Hotel. It would have been on the northeast corner. He had an old Springfield rifle that he had used at Cal, for shooting, with a scope on it. The commanding officer under whom he was taking orders said, "Now. These are your orders of the day. Looting is not to be allowed, and you will shoot on sight. You will shoot to kill any man you see on Market Street looting. Be very sure that he is carrying his loot. Be very sure you hit him." This wasn't that long ago. Anyway, my dad spent many, many days sitting in this hotel room with his trusty Springfield and its scope. This story doesn't include any time that he ever had to fire the gun. I'm very grateful for that, but his orders were, "If you see anybody, just shoot him." Period.

I assume at that time--everything was so chaotic--that school at Cal became almost an impossibility. Now, whether he was living over here and he couldn't commute or whether he was living at Cal --and I think he was living at Cal--everything was just in an uproar, a mess. He quit.

He showed up the same year, or the next year, we'll say, at Yale University back east. He remained there and finished his education at Yale being a member of the Class of 1910. In the spring of 1910, he was again on the rifle team. He was cranking a round into the piece, into the gun, and he tipped over all but dead with a heart attack. His doctor gave him absolutely no chance of recovery. He had held a straight-A average all through Yale, but he was short four or five months from graduating. He had been already elected to the Phi Bete [Phi Beta Kappa] club, but he was, in all intents and purposes, finished.

Nobody held out any hope for his future life other than his mother. His mother just thumbed her nose at the doctor and said, "I'll just get a new doctor. Obviously, you don't know what you're talking about." They took him out of school, and they hauled him down. It was in the spring, so it was still cold in New Haven, and they took him down to Florida and put him into some sort of a rest home there. It was probably a hospital, but it was the recovery part of the hospital. He didn't seem to improve, and he was undergoing horrible pain. They didn't have the drugs, of course, to treat angina which they do today. Somebody, probably

the tenth doctor that looked at him, said, "Well, you know, I have an idea. Why don't you put him on a boat and see if he doesn't get better on a boat?" So they found a boat that was plying the waters in the South, and he was put aboard this boat in a bed and spent several weeks there. He found that the motion of the boat somehow relieved some of the stress and that even though he was totally immobile other than the moving of his head--he could be helped to a sitting position, and that was all--at least he wasn't in this constant pain.

So spring came, and in June graduations came, and his mother said, "Do you think you would like to graduate, Donald?"

And he said, "Yes, I've worked very, very hard. I'm not quite as smart as you think I am, but I think I'm smarter than a lot, and if I could get a ticket, I'd sure like to have it."

So they talked to the doctor, and the doctor said, "Well, you can put him on a train in a gurney, and you can haul him back to New Haven. If they will allow him to be shoved down the line and the chancellor's willing to hand him his ticket--that you'll have to do on your own--maybe he can graduate."

So they pushed him down the line of graduates, and he got his ticket. He was still totally out of it. I remember stories, my dad saying that he only bowed to one man in his class. I happened to be looking through his class records--I have here 1910 of Yale --and he had some pretty sharp competition. He had one man by the name of Tap Gregory who was his best friend. Tap Gregory went on to become Supreme Court Justice in Chicago. He's in Michigan, and he also became my godfather, even though I never saw him more than three times in my life. He was supposedly responsible for bringing me up in Christian ways. He also had another roommate by the name of Taft. I remember my dad saying, "Now there was one smart man." Robert A. Taft. And he said, "Now that guy--I can't hold a candle to him. His intellect is such that I can't beat him. I can beat the rest of these Easterners, but I can't beat Taft." Taft was from Washington, I think, at the time.

Anyway, here he was--he had been trained in school as a businessman, just a general education--flat on his back, a cripple, and it was decided that, seeing as he liked the warm weather in the South, they might as well bring him back to California where his mother already had a house. I don't think the house is still there. I went looking for it a few weeks ago with Hisae [Mrs. Donald Dickey, Jr.], but I think it's been torn down. It's on Arroyo Canyon, sort of up above where the Rose Bowl is and where the old Colorado Street Bridge was. She parked him in that, in a bed, and she built a deck outside his room. They

put wheels on the bed, and my dad was wheeled out in the sun twice a day or something like that. He was allowed to sit there in the sun and think about school life and the good old days when he was a strong, husky man--a very handsome man--and here the future looked pretty dim.

Becoming an Ornithologist

Dickey: My grandmother hired a Filipino houseboy, and it was his job to try to help my dad get around. My father lay in this bed for over two years, going on three years. During the three years, his head worked pretty well. He saw things in nature; that's all he could look at. We didn't have the freeways then, you know. He saw birds, and he had a bunch of hummingbirds or something that were nesting near the porch. He got to thinking, "Well, maybe I can study them." You know, curiosity: "I wonder why they're always fighting," or "I wonder why they're always chasing each other around."

This started his love that became his undying passion and carried him through life to become the country's number one ornithologist. Along the way, he trained Alexander Wetmore, who became head of the Smithsonian. He put together a huge collection of birds, the largest ever collected by any individual. But his love came out of necessity, I guess. He had to get back on his feet, and when he got back on his feet, he really was a barn-burner. He just went at flight speed the rest of his life. And, of course, at the ripe old age of forty-five, he killed himself by the pace at which he had burned. He burned so brightly that the last two years of his life, in reading some of my letters I can see that he was back going the other direction, going back to bed, going back to where he had come from.

I'd like to say more about him, but his history and his interest in things obviously wore off on me--an interest in guns, things mechanical. That was part of my dad. I should say, probably, that the first thing my father did was to figure out how he was going to photograph these birds, long before he ever thought of collecting them or anything--"Wouldn't it be nice if I could take a photograph?" Well, there weren't any cameras. You would have had to have gotten up to within two feet of the bird, you see, in the old days, with a camera, and gone "bang!" like this [gesturing], and scared the bird off, but there was no way my dad could do that.

He had an acquaintance that knew George Eastman quite well, and Eastman had his studios in Los Angeles, I guess. He asked his mother if some technician might come by and that they might discuss the workings of a camera. So Eastman was very kind and said, "Well, this poor old boy is flat on his back. I'll send somebody over to talk to him." Well, the outcome of that was what became later known as a trip camera. In other words, the camera took a picture of whatever set it off, and it was set off by a--we'd say monofilament today. In those days it would have been a silk line or something.

Originally, my grandmother would buy a long spool of brown thread, and this poor Filipino that had been pressed into service had to climb trees. My dad would say, "You can make it up there," and the Filipino would say, "I hate trees. I can't climb." "Come on, you can do it. I know you can do it." And so he would encourage the poor devil, and the Filipino would climb this tree, you see, and get up on the branch. Then they would have some sort of a device that could lock the camera onto the tree limb. My father had seen some sort of a bird landing on this particular limb, so he would aim the camera on it. Then they would reel this little fine line back to my dad--just a thread, you see. My father would just sit there, hour after hour after hour, waiting for a bird to land on a limb.

Swent: Right in front of the camera.

Dickey: Right in front of the camera, and it wasn't any good that the bird lit on the other side of the camera or on the limb up above. They say patience is a virtue. My father learned patience. He didn't have anything else, so he learned patience. Then he thought, "Well, this is stupid, holding this string all day long. We'd like to have a lot of cameras, and I can't be looking around like this waiting for a bird. So the same basic camera was used, but you tied the string across a limb to something solid over here, and when the bird hit it, he took his own picture.

Then my dad decided that he wanted to take pictures late in the afternoon, and the film was very slow. What was he going to do? You didn't have flashbulbs in those days. You had what they call "giant powder." Giant powder you put in a trough, and you had a reflector behind it. I can't remember. Electrically, I guess, it was set off. There was some sort of a spark. There would be this huge "Poof!" you see, and smoke all over the place. The light, I guess magnesium or something like that, would be set off--this horrible smell and explosion.

My dad decided there must be a better way, a more portable way. Again, going back to his love for guns, he got a friend of

his to come in that was a gunsmith and said, "Now, will you take a .22 pistol--" and I remember this funny-looking single-shot pistol. He said, "Saw the barrel off of it and just leave, oh, maybe an inch of barrel ahead of the chamber, and then thread it, because I'm going to put an automobile headlight on that."

This man said, "Dickey, you're absolutely nuts."

And my father said, "No, I have a pretty good idea what I want to do. I need some sort of parabola that will focus the light."

So this man dutifully screwed this old, old, headlight thing that he had found in the junkyard on the front of this .22 pistol. Well, the next thing--the hole, you see, came through the barrel, and right under that hole they put a little trough that they soldered on or glued on. In this trough they would put a little of this giant powder. Then they would put a blank .22 short bullet in the gun, and again the poor Filipino climbed the tree. [chuckles] He put the pistol up here and taped it on, you see, with some tape onto the limb, then the camera here, and everything was aimed at this one spot on the tree.

Again, my father held the string, this time both to the pistol and the camera, because he had to open the lens, you see, in the dark, and then pull the other string. The poor bird was sitting in the middle of this, of course, with this huge light flash in his face. I'm sure the bird probably dropped dead just of fright. But this was my dad's attempt at photographing night life.

The story just goes on, and on, and on with the crazy things that he designed to photograph wildlife. He found that a man walking in the bush was too noisy, and he tried to think of the easiest way of photographing game. This was later on, now, three years after he survived this heart attack. He would go to the North Woods every summer. By this time, he was so hipped on zoology that he knew exactly what his life's work was going to be. He remembered his stories of *The Last of the Mohicans* and all--how silently the Indians could travel by canoe. My father--it just popped into his head. He thought, mount a camera on the front of a canoe, and then photograph wildlife along the banks of a lake or a stream, because they won't hear you coming. Put brush over the canoe so you look like kind of a slowly moving island, and sneak up on them.

Well, my father's pictures, of course, are world-famous. These pictures were shown all over the United States, shown at Cal Berkeley. I still have tickets that were issued for these

lectures that my dad gave over at Cal. He was off and running on his life's work.

Swent: Where are the photographs now?

Dickey: The photographs are at UCLA [University of California at Los Angeles].

Swent: The natural history museum?

Dickey: No. They had an ornithology department at UCLA, and they were being curated there. But my dad lived in a period where there was no history of these birds, and you had to get a bird. In other words, to examine a bird, you had to first kill the bird. Well, this is no longer acceptable for several reasons. One of them is we don't have all these wonderful birds flying around. I mean, my father thought nothing of killing a condor, and that, today, of course--he would have been shot at sunrise. There were acres of condors. Nobody thought that the condors were at all limited, and my father killed one condor to have in the collection. He also collected condor eggs which are now on display down there.

This collection wound up at UCLA, but my father did not go to UCLA. He worked privately in Pasadena in his own home. He had what we called "The Rathouse" out in back. I remember that as a child. It was a horrible smelly place. I can't remember what they used to, not embalm, but to treat these skins and all--very poor smelling. I'm sure I could look the name up. Anyway, the whole building smelled of this, and he had trays, and trays, and trays of birds. He was outgrowing his house. My mother was trying to get rid of the smell. My father had a lot of strange people coming by, ornithologists and people learning under him, so she finally suggested, "Why don't you try to tie in with a university or something?"

My dad thought about going to UCLA, but he thought, "Boy, that's a long way." There was a lot of countryside between Los Angeles and Pasadena. You were just driving out in the sticks in these old cars.

So my dad went down to Cal Tech [California Institute of Technology]. He had met Millikan, and he had met Hubbell, and he had met Einstein. All of these people that were associated with Cal Tech knew my dad personally. So when he approached them and said, "Do you mind if I bring my stuffed animals over here?" Cal Tech said, "We would be honored. We would <u>love</u> to have them." They made room for him in one of the halls. I can't think of the name of the building. I would have to look it up. All the birds

arrived there, and my dad was a fellow at Cal Tech right on up, I would say, until his death.

His death was in 1932. When he died, he left the largest private collection of small mammals and birds, I think, ever collected by an individual in the United States. The birds totaled sixty thousand, if you can believe it. The books that he had collected and that he had worked with, as well as wrote, totaled around seven thousand. My father also left a princely sum of money in that day to endow this collection, and to see that the curating went on, and left his right-hand man, a man named Van Rossen, to run it. My mother thought that everything was fine with the world and that her friends at Cal Tech would see to it that this was an ad infinitum arrangement. In my home, I remember the early days of having people like Millikan, and the discussions that they would get into with my dad so far over my head that I didn't even know the language that they were using. But my father had this ability, a crackerjack mind, that he was interested in everything. He would talk stars with Hubbell. He would talk physics with Millikan. He would argue with Einstein over some physics thing when Einstein came out--

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Dickey: My dad died in April of 1932, and we thought everything was settled.

Swent: I must say, it's a wonderful donor who gives not only the collection but something to maintain it as well.

Dickey: My mother had the idea that it should be a living thing, that it should continue.

My dad had a right-hand man named Van Rossen. You'll find his name as co-author on dozens and dozens of my father's papers. He was chosen by my dad, and he carried on my father's life work. When my dad was at Cal Tech, it was perfectly acceptable to have Van Rossen go on as curator. But the rules of the University of California were different. I'm jumping ahead of the time, but I should say at this point Van Rossen was not a graduate zoologist or ornithologist or anything else. He had not reached the position, certainly, that my father had. My father was totally self-taught. Van Rossen--I'm not sure how he arrived in this business. I think he started, maybe, as a driver for my father. He was probably a good shot. He probably was very interested in birds, and he was self-taught.

Again, let me say what happened. My mother was told in about 1933, 1934--someplace in there just very soon after my father's

death--that the collection would be no longer allowed to remain at Cal Tech. The decision had been made to turn the university into solely a straight science school. This was due to space limitations, and all of the natural science departments, divisions, what have you, were to be on their way. My father, of course, would have been brokenhearted about this. My mother obviously was, because she was right back in the position of not knowing what to do, not having the income to support such a collection and not wanting to see it die on the vine. In other words, this collection was a living thing--both the library part of it and also the work that was being done.

I think that I should say that when my dad started work in southern California, there was no museum or university doing any such work. In other words, there was no collecting. There was no depository for specimens other than the odd thing that somebody brought in and wondered what it was. These items might have been hidden away someplace. But the schools of southern California and museums just had not been interested. The University of California at Berkeley had decided that they would study the fauna from the Bay Area north to Alaska, so they more or less for themselves undertook the study from here to Alaska, maybe up even further north. No one was looking at the west coast of the Americas.

My dad felt that a proper collection should start around your own area--in other words, the birds and small mammals should come from southern California primarily. When that collection was sufficiently representative, then he felt that he should be allowed to travel south, because here again no American museum or university was studying the Andes or Central America or Mexico. Nobody had been interested in it. So my dad thought he would go to San Salvador, and he would go to Mexico. At the time of his death, he was already in both of those countries. He would have continued, if life had been granted him, to move right on down into South America with his collecting.

So my mother felt, for continuity, this Van Rossen would be able to carry on. He already knew where my father was going, what he wanted to collect, and how they were going to do it. He had contacts in San Salvador and in Mexico. So he continued on, but it was not until my mother made the next step, which was to approach UCLA, that Van Rossen ran into tough sledding. He was not a college person, and colleges do not accept people that walk in from the outside and have no credentials. My mother said, "Well, I don't see how you can make such a statement, because I will bring you documentation of the country's leading ornithologist that will vouch for this man and state that there is no one person that can better him in this field. He was hand-

picked by Mr. Dickey, and I feel that he should be allowed to go on." Well, there was a big hue and cry, and the board of directors or trustees had to get together. An argument went on, and on, and on: "Well, should we take this clown or not? He doesn't have the credentials." My mother fought on the other side, and eventually they said, "Yes, we will take him on. We'll make an exception in this one case, and when he passes from the scene, it will never be done again."

So they took him on, and the collection was then moved from Cal Tech across town over to UCLA and was well housed there, except their library was not large enough to accommodate my father's books. The library was sort of split off and put with another library sort of under the umbrella of UCLA. This I would have to look up for you. I don't have the name or the address of that library, but it was kept separate many years. It's only been in the past few years that it's been brought back directly to the campus. Now it's wound up in a biomedical something-or-other. I'm hoping that eventually the two entities will be placed under one roof. I'm working very hard at that at this time.

My family's relationship with UCLA and Cal Berkeley has been of the finest order. My dad would have been a graduate there if it hadn't been for the fire. I like to think at one stage of my life I might have graduated from there except for the fact that I was a GI that came back to UC. I had already spent one year there, and I came back and had more trouble getting into classes and finding books and all. I eventually dropped out to pursue my life's work in mining and wound up in another university. But the relationship that we have had with the University has always been of the highest order.

I'll throw in a little anecdote that happened maybe three years ago. On my way to work one morning, I saw three owls sitting alongside the road. I was able to spot them. I was pretty sure I knew what they were, but I went back and took out a book and found out they were pygmy owls and yes, we did have them in the Sierra Nevadas. Well, they sat all day long, and when I left for home that night, these three little owls were still sitting on the ground. I thought, "That's very strange. The mother should come back and take care of them, because a car's going to hit them or something."

The next day I came back, and there were only two little owls sitting up side by side. One of them had tipped over flat on his face and was dead. I thought about that, and I thought, "No, you don't fool the raptors. It's against the law to touch them, and Mother Owl will come back."

Well, I went to work, and that evening I came back. The second owl had tipped over, but he was still alive. One was sitting. The other one was lying down, but he was alive. That was too much for me, so I hauled these miserable owlets down to the house. My wife and I tried to figure out how you ground up a mouse or something, which didn't seem too attractive to us, so we found some dog food and minced meat of some sort, and we started feeding these owls. We had them about a week until they gained enough strength to look as if they were going to survive, and of course my immediate thought was, "I'll take them to the University of California, and they'll take care of them."

Well, I mentioned this to a vet. We dropped a dog off at this vet so that we could haul the owls down to Davis. The vet said, "Well, you idiot, do you know what you've done?"

I said, "No, I'm just trying to be a humanitarian, and I know there's a raptor center at Davis."

He said, "Yes, but you don't have a license to send them down there."

I said, "No. I'm just taking them in as a civilian."

"You can't do that. It's against the law to have an owl."

I said, "Oh, come on."

And a young technician stood up, and she said, "I'm a student at Davis, and I work in the raptor center. I'm sure that I could take them in under my wing."

I said, "My dear, you are welcome. Please. Thank you. You make me legal again." So she called ahead, and I--in a couple of hours--delivered these two things to the raptor center.

When I came in, they asked me to sign my name, and I wrote it down. A young professor at Davis kept saying, "You know, it's funny. I've heard that name before somewhere. Donald Dickey. I've heard that name, but I just can't place it." Well, I didn't have the heart to tell him who Donald Dickey was and that the whole traveling collection for UC Berkeley, UCLA, UC Davis--whenever they need skins, or pieces and parts, it comes from this collection. So I kept my mouth shut and left off these owls and was grateful that I hadn't been arrested for my attempt at being humanitarian.

I should state that I don't recommend anybody trying to take care of a raptor. They're the smelliest, dirtiest birds that ever was. [chuckles] That's the end of that story.

Swent: I don't think you had said anything about--you had said that John Muir was a friend of your grandmother. Your father also, then, knew him.

Dickey: Also knew him. The tie must have gone back to my great-grandmother. I would say that it went back to the early logging days in Wisconsin. I've read many of Muir's books, but they have been of his life in the West. My memory is that he grew up a tragic young boy with a Scotch father who kept him working from five in the morning until six at night, and no education--very little.

Swent: You have photos in your album.

Dickey: I have photos, but I don't have the story to go with the photos. I have the photos of my great-grandmother and my grandmother with Muir and notations that it was in Wisconsin. Then I have other photographs that show him, Muir, and several other scientists on Mount Whitney. Along with this group standing bravely on top of Mount Whitney is my dad at the ripe old age of fifteen, I think, and his mother. So there was a tie that extended to the West Coast. Muir, I believe, did quite a bit of work in and around southern California--the mountains behind southern California. I would say these two women were--I don't know, can't use the word disciple, but they were just fascinated by his lore of nature. When the probably original Sierra Club was formed in his name, I would say that if a person wanted to look, one of these ladies' names would appear. It was a family member.

Swent: Your father must have been strongly influenced.

Dickey: My dad was very, very influenced. He was influenced, one, by their intellect, but two, by their love of nature. So this trip up into the high country of the Sierras came long before his heart problem. But it was sort of a hobby. In other words, my dad realized that he was driven or should be driven towards a life of business and in the community of business. Really, the life of a naturalist was very, very far from his mind. It wasn't until his illness and his total incapacitation that he thought that there could be a place for him in a totally different field. So he had many glimpses of what life might bring him, but he just turned aside until he realized that was something that he would be able to do and wanted to do. From that point on, he was driven just straight as an arrow. He never varied, never wavered in his desire to be as capable, as competent as he could in his field.

He was completely self-taught. He studied and read every single publication that he could find on birds and small mammals.

But you probably realize in that day that the idea of a bird skin--a bird could be skinned just like a larger animal. But they would take a round ball of cotton and sew the round ball of cotton inside this bird skin. So all your birds were round, and they had two wings that went in this direction and two feet that went down that way. This is the way you saw them, spread-eagle in a museum, we'll say, mounted. The thought had never occurred to anybody to put eyes in a bird. A bird doesn't have eyes; they just have little slits where the eye was. Well, my father didn't find that particularly acceptable, and so my dad was the forerunner of the natural mounting. In other words, don't just ram cotton into them; try to give them something in the way of the assemblage of the skeletal structure underneath the skin. The same holds true for the small rodents and all that he worked with.

My dad was a leader in that field. He taught people such as Wetmore, and Hughey, and the San Diego Museum. I can't tell you the names of the various people that he worked with. I know that the Japanese government in about 1929 or 1930 sent a gentleman over here from the Japanese national museum to learn how to mount birds. The relationship with this gentleman has been a lifelong enjoyment to me, because through him I met many Japanese people, became knowledgeable myself of things that went on in the Orient. But my dad was a true leader in both the fields of photography and zoology.

Swent: Did you take part at all in this as a child?

Dickey: I remember going on walks with my father. As I said, my dad was so busy that he really had very little time for me. I don't say this with any bitterness. I'm perfectly accepting of the fact that he would work a twenty-two hour day, and I didn't have too much place in it. But when my dad did have a chance to collect locally or was able to relax a little bit from his work at Cal Tech, he would take me out over in the arroyos in southern California. We would just tramp along, the two of us, hand in hand. He would point out anything from a mouse burrow to a hummingbird nest. I would look at it, and I wouldn't see anything. Then he would say, "Well, look harder. You <u>will</u> see it. You see how tiny it is." Then he would show me the eggs or something. We had trips like that together.

He was a classmate of a chap by the name of Tappan Gregory when he was at Yale, and Gregory went on to become not only a Supreme Court justice, but he also became interested in photography. He did the same type of photography that my dad did.

They called it jack lighting, and I don't know if that is a term that we use today. I think probably we would call it spotlighting or something like that, but it was a method of flashing an animal at night with a strong light. The animal was normally frozen in its tracks, and then you could take still pictures, or even moving pictures, before the animal collected itself to go on its way.

Anyway, Tappan Gregory became my godfather, or was commissioned, or however you get a godfather. He, through his life, tried to coach me, more or less, in the way of nature and the out-of-doors. He would send me books to read, and when I would go back east to Chicago, he would take me out in funny little woods just outside the city. We would walk around looking for things, so I was coached pretty well, even though my dad was gone.

Swent: You were very young.

Dickey: I was very, very young at the time, and I really don't--my recollection is not too good, but I remember this love of the out-of-doors came very naturally. I don't remember my grandmother. I'm sure I must have sat on her lap and heard stories of her expeditions out in the woods and all. Of course, later in life, I have seen most of my father's films and pictures of my family in the Maritime States and up in Nova Scotia. My dad, I think, spent something like twelve summers up there when he was recuperating and as he was getting stronger. He did most of his work there until he became a--he wasn't a professor, but he was given some sort of a title at Cal Tech and then went on the teaching staff. He was no longer able to spend great lengths of time in the woods.

Swent: Where did your parents happen to meet?

Dickey: I guess they met in Pasadena, and I'm not quite sure. I think my mother's dad might have been out very late in his life.

Swent: We left them in Virginia.

Dickey: We left them in Virginia, but somehow they came out either on a trip or on a visit. In those days, it was very polite for a lady, if she had a visitor, to introduce the visitor to her friends in the neighborhood or something like this. I'm not sure that they bothered about the men, but I think ladies were taken a little better care of in those days.

So my father's mother was invited to meet Miss Murphy, and Miss Murphy's only claim to fame was that she came from Virginia and was visiting in southern California. A tea, I believe, was being given. My grandmother on my father's side got this

invitation, and she said, "Wonderful! We will go and meet Miss Murphy." My father said, "The hell we will! I wouldn't want to cross the street to meet Miss Murphy." There was a large discussion about whether they were going to meet Miss Murphy. My grandmother was a very strong and persuasive lady, and so my father had to get dressed up and had to put a necktie on, which was not his style. He had to march halfway across town to meet Miss Murphy.

Literally, over a cup of tea was how my mother and my father got together. I don't know how it progressed and how long it took to progress beyond that, but my mother became fascinated, of course, with his work and joined hands with him and became a lifelong partner with him in his endeavors. I have wonderful pictures of her in the North Woods and all the odd places that my dad wound up. I have these two images. One, of course, of my mother beautifully dressed, wearing gloves in San Francisco, and a hat, which you had to in those days, and then my mother in old jeans, or jodhpurs, and beat-up shoes and a lumberman's shirt, or something like that, in the North Woods. So she carried this dual image all through her life to me.

Swent: That picture of her embroidering--

Dickey: Absolutely in the middle of nowhere, but she carried that along in a little satchel. When time was heavy on her hands, she would do a little embroidering, you see. She also scrubbed all the clothes on an old glass, I guess they were, washboard--weren't they? I don't remember. I think the one we had was glass. She would scrub up and down on this thing in a cold bucket of water. This area into which they went really was about as far into the country as you could get. Nova Scotia, northern Maine, in the early 1900s and 1920s, was pretty primitive. You had to go by canoe. There was no communication whatsoever. There were a large number of portages where everything had to be packed on your back or on your head.

II EARLY YEARS AND EDUCATION

Schooling in Europe and California

Swent: Were you ever taken on any of the expeditions with your parents?

Dickey: I was never taken. I was always too young for that. I was left in the care of someone at home while they went off. As I've stated, I'm of the old English family, and children of that day were sort of--can be seen but not heard. My best friend was a large shepherd dog, as I remember it, by the name of Tell. He was sort of a companion and watchman. And then, if there were somebody around the house, working in the garden or something, I would be plunked down there until my parents would come back. At the time, it seemed perfectly normal, because I had never had any other kind of a childhood. I believe I am the seventh son of a seventh son. So there were no girls going back through my father's family, and there was only one son. I would break that chain, which I think was about due to break anyway.

Swent: So you went to Thacher for elementary school?

Dickey: No. I went to--my dad was commissioned to do some work in Paris. My family decided that it would be wonderful if they took me along. This was one of the places they really did take me. They got me to Paris where my father was instructing, I think, at the Sorbonne, or doing something with the Sorbonne. I was put in a French day school, but because I didn't have the language, and I wasn't very much up on customs at the age of seven, or whatever it was--I think I was about seven, six maybe--it was a constant nuisance that somebody had to get me to school and get me back from school. My family had, I believe, a maid living in the house that we rented, but she was constantly trying to find me in traffic or getting me to the school. It wasn't working out too well, so they looked around for a boarding school. That was very much the custom in those days.

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Dickey: I was put in a boarding school in Switzerland, just outside of Geneva. It was, they felt, a very good opportunity, which I agreed with, I guess, but it meant seeing less and less of my family. My family within the year decided to come back to the States. My father's work was over. He would go back to Cal Tech. I was left there, and my mother would arrive during the summer and take me out of school and tramp me around the country looking at things that I was supposed to be interested in or supposed to see --not that I was interested in them.

I remember seeing an awful lot of churches. My mother was very strong on churches, not as places of worship but studying the architecture, which was a hobby of hers, and looking at the stained glass and all of this. I was dragged from one end of Europe to the other looking at churches. Fifty years after that fact, I came upon a letter that my father had written at the age of six to his father saying, "My mother is taking me to too many churches." So we share a mutual dislike at the inside--not a dislike, but we had had a surfeit, I guess, of cathedrals. I can see the windows of the cathedral at Chartres, you know, the beautiful stained glass, emblazoned on the inside of my head now, thanks to this.

But I was left over there mainly because the headmaster had become a good friend of my parents. They said I was doing very well in school. I probably, at the time, spoke better French than I did English. They thought it was a good educational opportunity for me. It wasn't until I was ready to go into--well, it would have been the last four years, which, I guess, is our high school. Their system, of course, is different. They're six years, and we're four years.

They brought me back over here, and I was not allowed to follow my father into Thacher, the rule being that no student that lived in the Ojai valley could attend Thacher. In the meantime, my father was so in love with the Ojai that he bought a little piece of land. He had a kind of a little weekend retreat shack that he had put up, actually an old farmhouse that he had rebuilt. So they said, "No, you can't go here."

So I was sent to a couple of other boarding schools. I disgraced myself. If I wasn't thrown out of them, I was at least asked not to come back in the fall. I can't remember doing anything that should have disbarred me. I remember I was tossed out of one because I was very interested in shop. I've always been interested in hand work, using my hands, and we were supposed to be making lights and things like that, turning wood on a lathe

and making practical things for Christmas gifts for our parents. I thought, "Well, this is silly, having to use these little funny pieces of wood that they give us here. I'll just bring some really good manzanita down from the mountains."

This was over at Catalina Island. There was a strong rain one day, and I went up this dry wash. The wash was about two feet deep or three feet deep in water. I found, by pushing some of these old manzanita stumps and logs into the water, I could float them down the river. Of course, it never occurred to me that I really didn't swim very well at the time, and the water was too fast and all of that, but, anyway, I came floating into practically the school yard on a large log--a large burl or something. One of the headmasters saw me and decided that I was incorrigible for attempting this. When he told me that I had broken so many rules of the school, I said, "Well, how in the world else did you expect me to get this down here so we could take it to shop?" That cut no ice, and they brought up several complaints against me--that I was fishing during hours that I should be sleeping, for taking a nap in the afternoon, or something else. Anyway, in the next fall, they asked my mother if they would please see to it if they could find another place for me.

It didn't really hurt me that much. My mother was very supportive. My father looked on me sort of as a--well, this is about the time that he passed on, actually. It was after he passed on, so he couldn't have backed me, but my mother's backing was sufficient that at least my self-image wasn't completely ruined by the headmaster.

Thacher School, Ojai, California

Dickey: A student in the, we'll say, second high school year, a student was accepted at Thacher because his mother ran a stables in the Ojai valley and provided horses for the students at Thacher. My mother heard about this lady, a Mrs. Hunt, and my mother said, "Aha! I think I have a wedge." She marched up to the headmaster, Mr. McCaskie, I think--I don't remember who was the headmaster--and said, "You have broken the rules for this young fellow. Now I hope you will do the same for my son." And, of course, she had them. They couldn't back down, and I got the final two and a half years of Thacher--went there, loved it, worked hard, found that schooling was not half as dreary as I thought it had been, and graduated with, if not honors, certainly halfway up the scale. I was class valedictorian, or whatever they call it, and on three or

so athletic teams, and at least held my own. I had joined the navy before I got out of high school. My mother told a fib, and I was able to sign on with the navy.

Swent: Now that's interesting. How could you do that?

Dickey: Well, you see, eighteen was the draft age. Eighteen was also the age at which you could go in, but with parental consent, you could go in at seventeen. I had taken up a hobby in the Ojai valley, other than this horse I had--that was my transportation. The old headmaster was very shrewd, because he knew with a horse we weren't going to get too far or into too much trouble. We had this horse sort of around our neck like an albatross, because you had to feed the horse, and water the horse, and wherever you thought you might get a little bit away from school, there was always the horse.

An Airplane Pilot at Sixteen

Dickey: Well, one of the most distant spots I could get to in the valley was at the other end of the valley towards Miner's Oaks. They had a little airstrip. I would go down there and watch these funny little planes buzzing around, and I thought, "Gee, that looks like fun." I asked for a ride, and I was promptly turned down, saying that it cost ten dollars or something to go up in an airplane. I said, "Well, there's no way that I'm going to put ten dollars together in any reasonable length of time. Can I work here?" The owner of the airport said, "Yes, but I've only got a pretty poor job for you. If you want to scrub the belly of airplanes where the exhaust has blown oil all over the thing, I'll give you credit for a dollar an hour,"--or something like that, fifty cents an hour--"and you can work your way into flying." So when I had time off on a weekend, I would go down and scrub these darned airplanes.

That built into a few more hours in the air that I was given, and it actually eventually ran away with me and built into a private pilot's license when I was sixteen. When I was seventeen, I had done all the ground work and the flying for a commercial license. I joined what was then called the Civil Pilot Training Association, or something like that, right in school. I was still in school, but on vacations and all I would go and try to train with this group.

I built up several hundred hours with this civilian thing, and there was another group. It wasn't military. It was totally

civilian, called the--it wasn't Civil Air Patrol. It was the forerunner of the Ferry Command, but I can't think of the name of it right now. It was totally in the hands of civilians, and it was contract flying of various planes, either to Canada or to the East Coast, for delivery. I had enough hours to qualify to fly what they call little L-5s, which were little spotter planes. I was commissioned--not commissioned in the military sense, but commissioned as a job--to take these light planes up to Canada. I would pick them up at a factory in Van Nuys and fly them up to Mojave, because you couldn't fly along the coast. I'd have to fly a hundred miles inland. You literally hopped up the coast. It would take five or six days to get to Canada. I would land in Vancouver on our side and hand over the papers to this little plane. The Frenchman, or an Englishman, or a Scandinavian, would show up on the other side and say, "Thank you very much," and sign for the plane. I did that for a period of a couple of months, actually, during the summer.

Swent: And you were very young.

Dickey: I was very young then. I was sixteen still, going on seventeen, and maybe early seventeen. But my mother signed this waiver so that I could go into the military, and I decided I wanted to be a navy pilot. I'm not quite sure why. I think it was the color of the wings. I think that I felt that gold wings were better than silver wings, and I also felt that as long as I had a ship under me, I wouldn't be sleeping out in the mud someplace. So I probably was sort of chicken in a way and thought, "Well, as long as this is a voluntary thing, I might as well sign up with an outfit where I'll have a warm meal and get a bunk at night.

Service in the Navy

Swent: This was before the war?

Dickey: No, this is during the war. This is early 1943, and I was about to graduate from school. A program came along, a program I can't remember--V-5, I think it was called, which was navy pilot training. I went down, and I signed up. They said, "Well, we'll sign you up, but you have to take a physical." I said, "Fine, can I take that today?" They said, "No, you come back and take it in a week or so." So I went back up to Thacher and showed up--I think I went to either Santa Barbara, to Ventura, or someplace like that, to a recruiting office. They took me over to a hospital, and they ran me through. I flunked the physical. I

flunked it for sugar. In one of these tests, I came up registering high sugar.

I was heartbroken, and I took these results that the navy gave me back to my doctor. And my doctor said, "Those darned fools! What did you have for breakfast?"

I said, "Well, they told me they were going to give me a physical at seven o'clock, but nobody showed up till ten, and I had four Coca-Colas, and then I went in, and I had pancakes with syrup, and I had something else."

And he said, "Well, you idiot! That's what's the matter. Now ask them to take another test." And he wrote a letter for me, and of course that time I didn't have one teaspoonful of sugar. I passed with flying colors. I actually signed a document which I took back to my mother, and she signed it. So I was in the navy at seventeen, and they allowed me to graduate. I stood up at Thacher in June, or whenever it was, and one week later I was in the navy.

I was told once I arrived in San Diego at boot camp--they said, "You're going to go through boot camp the standard length of time, and then you're going on to primary and secondary flight training. We cannot make you a pilot, Mr. Dickey, even though you are a pilot, because you're not a gentleman."

That struck me as the funniest thing I had ever heard in my life, and I said, "Well, I don't think there's anything that the navy's going to do that's going to either make me a gentleman or not make me a gentleman. What are you talking about?"

They said, "You have no college."

I said, "No, I jumped out of high school to try to get into your outfit. Of course I haven't had college."

They said, "You're going to get some. You're not going flying. You're not going to be a hot pilot. You're going to UCLA." So as soon as I got out of boot camp, I wound up in the V-12A program at UCLA and spent eight months there.

Then they transferred me to Cal Berkeley. I spent eight months at what we called Callahan Hall--I think you call it International House now--carrying wood and guns around the campus with bayonets that kept breaking. They were plastic, and we would try to do a Queen Anne salute. The bayonet would break off, and we felt sort of like idiots in those swabby suits, but the other students were gracious enough, and the ladies liked us in our

uniforms, so we survived that. We put in about seven days a week, I think, on the books. We were given credit of one year for the eight months that we matriculated there.

Then I had orders to Chapel Hill, which was a pre-flight school. They were full up. We had too many navy pilots. They weren't being shot down fast enough, and they at that time had completely dominated the Pacific with their planes. The Japanese were in full retreat, and I was terrified that the war was going to pass me by. I wound up at the ivy halls of Princeton. Again, I was sort of a nonentity. I was waiting to get into a program that was full. I was very unhappy there. I have a series of letters that I wrote my mother, telling my mother what I thought was wrong with the navy.

Well, I finally screwed up my nerve and courage to go down and tell my commanding officer what I thought was the matter with the navy. He told me that he had been looking for men like me, and that he would be very pleased to see that I be taken out of the pre-flight program and that I could jolly well go on my way to the Pacific. He would get some orders for me just as soon as possible. So I wound up after two years of being in the navy with no rank. I was still a seaman second--I think a cadet was--and I was given orders to a ship in the Pacific.

As I was trying to carry out these orders, my new commanding officer saw the amount of schooling I had been given, and my aptitude, grades and the rest of it, and said, "We can't accept this fellow." I think they were going to try to make me into a motor machinist third, or something like that. They said, "This is idiotic! You can't bring this bird out here. Send him to midshipman's school."

So I really didn't step twenty feet outside of Princeton before I got another set of orders saying I should go to Columbia. I went to Columbia University and put in four months there and came out an engineering officer and promptly went into tank bottoms of ships. That's just as far as the navy could get me from the air, from the flight service, other than sticking me in a submarine. I didn't qualify for that because submariners, I think, had to be 5'8" or less, and I was 6'3". I couldn't qualify, and I went out to the Pacific as an engineering officer, a B-division officer, which means I was in charge of boilers and such things as that in the bowels of the ship.

That was part of my education, and it had no more goal than I had had when I was in grammar school. At that time, I didn't have a clue where I wanted to be. The schooling, of course, was all aimed at aeronautical engineering, but aeronautical engineering,

the first two years, was basically mechanical anyway, so I hadn't lost anything. I really didn't lose until I came back after the war.

The University of California at Berkeley

Dickey: I went back to Cal, and then I got into trouble because what the navy thought were certain grade points, Cal Berkeley thought, "No, we'll give them more grade points for this course, but we'll dock them a couple over here." So my transcript was just a complete mess. I remember I was put in Wheeler Hall, and I sat in a room with 130 students, every seat in the room taken. There was a rather poor squawk box--what do you call it? Not amplifier but--

Swent: PA system?

Dickey: PA system, but it sat on the teacher's desk. Somewhere was a teacher, and this teacher had us in Psychology 1-A or something like that, some ridiculous course. In my classroom, we had crap games going, we had people reading newspapers, we had girls discussing dates of the night before, we had people knitting. I don't think there was 10 percent of the students who were paying any attention to the poor fellow on the microphone. That was very hard on me, and the courses that I had in upper division, we had no books. The University had been unable to get the books for that particular semester when I went back, and this would have been '46-'47.

Because I came back directly from the Pacific and because I had been to Cal, they were more or less obliged to take me. My mother at that time was living in the Bay Area. I was commuting; I had no place to live over there. I was commuting, and I remember spending my nights in the library. I would be literally fighting with five or six or seven other upper division students trying to get one book on analytic mechanics or one book on chemistry so I could do my assignment for the following day. It was just chaos.

Along with that, they weren't really set up to feed the students. In other words, the students who were there in dormitories--they were taken care of. The students who were in the frat houses were taken care of. But the oddities and the GIs like myself, on the GI Bill, were left to shift for ourselves. Between classes, we would go racing down to Sather Gate to try to find a hamburger or something and then go racing back across campus up to the engineering building or something.

Well, it became too hectic, and I realized that I wasn't going to make it. I knew I couldn't make it, and by that time I was sort of disgusted with school. I just wanted to get out. So before the midterm cinch notices came out, I resigned and went on my way, again without much direction.

My mother, in the meantime, had had to change her way of life and had gone into the mining business. I had paid not too much attention to what she was doing. During the war, of course, the mine had been forcibly closed by 208 [War Production Board order which closed gold mines in 1943], so basically from 1941 to 1946 nothing happened at the Oriental [Mine]. It just lay idle. It wasn't until I had started going to school that my mother even tried to go back and put a crew together.

At this time, because she was trying so hard to get the mine operating again, she must have talked to friends here in San Francisco. I don't know whether it was Dr. McLaughlin--she was a great fan of his--or exactly who, but I remember that an exploration manager from Newmont, Bob Fulton, somehow got a hold of my mother and said, "You know, Mrs. Dickey. This hare-brained son of yours has all this experience and no goal. Maybe he could go in with you. Maybe he would fit in the mining business."

My mother said, "Well, I don't know. He doesn't know anything about it, so I don't know quite how much help he'll be, but if he develops some sort of a talent, I'd like to take him in."

So Fulton said, "Well, let me see what I can do. It's mid-semester, so I don't think he can go in now, but maybe he can go to Mackay [School of Mines, University of Nevada]. He won't have the trouble there because they're a very small school. They are looking for people in the mining end of it. He doesn't seem to have any interest in geology, but if he would like to go, possibly he could use his mechanical bents and get into the mining end of it."

So I was given a letter by Fulton who, I assume, at the time was with Newmont. He would have had to have been in New York, but I think Bob came from out here. I think he came from Grass Valley or something like that. I don't remember. He had ties out here somehow, and my mother had met him out here.

And Newmont was in our area, so whether he was attached to the Grass Valley group and my mother met him that way through the mines there or here in San Francisco, I don't really know, but he volunteered to help. At least he wrote a nice letter and talked about my navy career--non-career--and spoke of my mother and asked

if there could be room for me at Mackay. Jay Carpenter, who was the dean, said, "Yes. I'll take him in, because he comes of a family that at least is interested in mining. So we'll take him on there."

Mackay School of Mines, Reno, Nevada

Dickey: I went up there in the late forties, and I put in about a year and a half. The whole time I was at school I was working at the mine. The more I worked, the more I liked mining; the less I liked school. I have many pleasant memories now looking backwards on my schooling days at Mackay, but at the time I thought it was very difficult. I'm afraid what it was--I was a GI. I was twenty-four or something like that, twenty-five. I had been a lieutenant in the navy. I was back with sixteen- and seventeen-year-old kids that wanted to play pranks and pledge fraternities and chase sorority girls and drink beer. It just didn't fit in with--all I wanted to do was get in and get out. So my loyalty to the school was minimal.

I constantly was at loggerheads with Jay Carpenter. Carpenter taught senior courses and junior courses in various mining things, and I can remember that he would send in to various companies like Ingersoll-Rand and get a hold of old brochures on drills. Ingersoll-Rand was very good about sending him these parts lists and old publications that were totally outdated. We had to study these things, and we had to study what the palls were, and the pall followers, and the rifle nut. We were memorizing all these pieces of this drill. I was dutifully doing this, and Carpenter, one day in class, said, "Dickey, you don't look very enthusiastic about this." I said, "Prof, you know, these drills were thrown away ten years ago, fifteen years ago. This is the most antiquated junk!" And he said, "Dickey, so help me, I'm going to get rid of you!" We just couldn't get along. It was very sad, because when I got out of that school, he became a very fine friend.

I'll tell you just a couple of other things. I know that I was studying how much grain and hay a mule ate in a day if you were in the Andes. And I thought, "Come on, Prof. We've got pickup trucks, and we've got this, and we've got that." He said, "Dickey, I hope that the first job you get in mining is just at the top of the Altiplano at eighteen thousand feet, and you have nothing but a burro."

I had a dog, and the dog went to class with me. The dog would get as bored as I was, and the dog would yawn and walk out. Well, Carpenter--that made him furious to see this dog yawning and walking out the door, and I wanted to do the same, and he knew it.

He asked me to give a talk one day. Each semester we had to give two talks, and I had put together what I thought was a reasonably decent talk on flame piercing. Because I had quite a bit of knowledge, of course, of the Mesabi Range--which I haven't brought up, but it'll come out--I came in and told the class how taconite was mined. The secret of mining taconite was the secret of drilling taconite, and the original drills just weren't up to the job. Today rotary drills can be used, but in the early days, when I was in school, they couldn't. So oxygen and diesel oil were burned, along with water, in flame piercing jets. They literally burned themselves. It was like a giant welding torch, and it just burned its way down through this iron. If you went very quickly, you made a very small hole, you see, a five-inch hole, something like that. Then, if you wanted your explosive charge at the bottom of the hole, you could slow your drill down, and you would burn a coyote hole. It was a wonderful way of bottom-loading, which is sort of a buzzword today, creating less air shock and just a very good method of placing your powder.

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Dickey: I was halfway through this little speech I was giving to my classmates, and Carpenter sprang out of his seat. He said, "Dickey, that is the most Rube Goldberg thing I've ever heard in my life. You've been reading *Popular Mechanics*. Nobody uses a cutting machine like that to get through taconite or anything else. What is this coyote hole you're talking about? It's just not acceptable. Now you find something else to lecture the class on." Well, of course, I became furious and stormed off. He threw a few choice words after me, and the class laughed. I was just totally out of phase, we'll say.

It was later in the year, the end of the year. Mackay Day came. Mackay Day is a sort of a homecoming day. We were supposed to grow beards. The darkest beard, the reddest beard, the scruffiest beard all took prizes. We also had your regular mining contests of the day--mucking, jackhammer drilling, timber framing. I can't remember all the things. My classmates had come to me and said, "Dickey, you've been working on all your vacations, and you work in the mines on every free day you have. Why don't you represent us?"

I said, "No, I don't want to. Carpenter will laugh at me, and I'm already in such hot water. Nothing that I can do would be

right. I'm going downtown and drink beer while you people carry on this business."

So I went down to a bar called Little Waldorf. I loved the Little Waldorf. It had good beer, and they had all the newspapers. I could get a hold of various papers and read it. I had had probably two or three too many beers when all my classmates showed up and said, "You've been elected."

I said, "To what?"

They said, "We entered you in the jackhammer contest."

I said, "You're insane. I'm in a business suit and decent slacks and shoes like these, and I've had too much beer, and it's hot, and I don't want to go back to the campus."

So they just picked me up, and they dragged me back to the campus. The judge was standing there, and he said, "Now, these are the rules. You have to drill in this particular square."

Well, I looked at this rock, and the rock was about five feet off the ground. I thought, "How in the world am I going to get up there in the first place? I can't see where I'm supposed to drill. This is insane. I retire."

And the judge said, "You can't retire. You're the representative of the mining class of '49," or whatever it was. "Now, you're going to have two minutes to drill. You have a chuck tender, and the chuck tender can change the steel. Any time you would like, just signal him, turn the drill off, and he'll change the steel. And you have to drill in hole number X-17."

Well, I didn't know where X-17 was, because I couldn't see the top of the rock. The next thing that happened, my friends pushed me up on this rock, and they pushed this jackhammer up behind me. Well, I was hanging on to the jackhammer, and I had had the foresight or something to put on a pair of leather gloves. I'm not quite sure why. I wasn't afraid of getting my hands dirty, but I thought that, somehow, by putting these gloves on, I would get an advantage over these other students.

I was standing there, thinking of where the hole was that I was supposed to drill, looking down under my feet, trying to look for whatever X-17 hole was. My chuck tender reaches up and pulled down on the throttle--wide open. Well, of course, a jackhammer, if you don't just feather the air in, it just started leaping like a kangaroo, like that. I was all over the top of the rock chasing this jackhammer. I couldn't turn it off. I couldn't let go of

the handlebar. Finally, I thought, "Well, to heck with it," and I got it under my shoulder. I leaned down on it, and it started drilling. I got control of the thing, at full throttle, and as soon as I had driven it down a ways, I thought, "Now I know why I put these gloves on." I held my hand down over the exhaust, and I blew all the exhaust into the hole. So it was blowing cuttings out of the hole while I was drilling, so I didn't have to shut the drill off to blow the cuttings. And, when I could get my leg over the drill, nobody had ever seen a person try to ride one. I got one leg up over the handlebars, which put more weight on it. I got the drill--the starter steel, I suppose, two-foot steel--I had it down all but six inches.

My chuck tender pulled the throttle off, swapped steel, and I started again. I got up on top of it, under my leg. When they blew the whistle, I had gone three inches, we'll say, further than anybody else. And the good Lord had seen to it that I had drilled in the proper square. This is totally with no help from myself or anybody else. This thing had jumped around like a kangaroo, and it had just landed in the square. There was a great deal of cheering from our side, booing the geologists and booing the metallurgists and the rest of them. I jumped off the rock, and I just ran right out of the crowd and back down to my favorite spot there on Virginia Street.

I put in another month of schooling and went back to the mine for the summer. About two or three weeks after I got back to the mine, a little package arrived with my grades. I thought, "Well, there's no future thinking about next year, because next year they won't take me back. My grade point average is such that I won't be accepted. So I just threw the package down on a desk or a table and left it. It sat there all day long, and I came back after work. I looked at it again, and I thought, "Well, you ought to have at least guts enough to open it." I opened it, and I had quantitative chemistry. I saw a C. I thought, "Well, that's all right. I'm still even." Then I opened something else--fluid mechanics--and had a C in that. I put it down, and I went through this whole deck of cards. I had come up with one D and all Cs. I realized at that time that with that D I was just flush even.

The last card in the deck was Carpenter. Carpenter, when I came in for the final examination, said, "What are you doing here?"

I said, "I came in to take the examination, Prof."

He said, "You can't pass this examination. If you pass the examination, your papers are only--you have a 65 percent or something. Unless you cool this examination, you can't get

through this course. I don't see why you're here. Why don't you go back to the Stone Wall that you like so much?"

I said, "Prof, I'd just like to see what kind of a Mickey Mouse exam you would give." Well, again, we were both just standing there like this [gestures], just at loggerheads. It was before the time--it was almost allowable for a prof to get up and hit somebody in the mouth. It wasn't today, where you don't lay a hand on the student. Prof, of course, was an older man, and I probably could have picked him up and thrown him out the window. But anyway, he was a big man.

So I sat down right in front of him, and I could see him drumming his fingers on the table like this. He was looking at me, and he was just looking through me. It was a four-hour exam. I put my paper in at about the end of an hour and a half, and called my Airedale dog, and started out. Carpenter was all smiles. He said, "You see, Dickey? You couldn't do it. I knew it." Well, I left. I didn't say another word. I left the campus, and I was holding--back at the mine, I was holding this card. I turned the card over, and he had put down B+ for the year. At the bottom, he had written. He said, "Dickey, you are probably the worst student I have ever had, but you may make a damn good miner." It was probably the finest compliment that I ever got out of my school days.

Needless to say, I went back to thank Jay, and we became fast friends up until his death. I helped him on--I scrounged machinery for him. He had some idea of building a sort of model mine up behind the campus. I helped him run down machinery. I found him current instruction in things for his classes and all. We just hit it off. But in the school environment, I just couldn't make it.

I did come back in the fall, and I signed up again. It was the winter of 1950, I think. I worked every weekend. I would leave Friday night, and I would work Saturday and Sunday at the mine. I would get up in the middle of the night, you see, to get back to school Monday. Well, one day, I couldn't get back to school. It was what we called then the "Big Winter of '50-'51." The City of San Francisco was stuck in the Sierras with all aboard expected to perish. Donner Summit was completely closed. All of the mountain roads were closed. Our roads to Alleghany were closed. So, physically, there was no way I could get back to school.

Swent: The City of San Francisco was a train.

Dickey: That was our crack train, yes. It had gotten snowed in at Cisco or something like that, and they couldn't find it. It was snowed in for a couple of days before they found the thing. The people were practically frozen. I don't think anybody lost their life, but they were in very, very serious shape. Donner Summit--the highway had thirty feet of snow on top of it. There was just no way of opening it--no equipment available in 1950 to open it.

I admit that I sort of used that as an excuse. By that time, I had developed a little bit of appreciation for Carpenter, and I thought that I should go over and at least apologize, which I did three weeks later. I drove around, finally, through the Feather River, which I could have done a week after the snowstorm but I hadn't bothered. I turned in my resignation, and so I left school without a degree. I don't know. I had 160 or 170 units, so if I could have put them all end to end, I would have had two degrees. I was short the constitution of Nevada; I was short differential equations, I think--odd courses that I hadn't gotten. I was so much out of phase, all the time, that it was a great frustration. By this time, I felt that I was needed. I had found--it wasn't a goal; at least I had found a niche that I could temporarily fill. This is how my time at the mine commenced. You see, my mother's days commenced in 1938. In other words, by '38, she had made up her mind that she was going to go into the business. I'm going to have to go back to that to bring that up to date.

Swent: When were you born?

Dickey: November of 1924.

Swent: And your father died in about--

Dickey: April of 1932.

Swent: So she was left with an eight-year-old.

Dickey: An eight-year-old, and she had a large bird collection, a ranch, and the Depression--

Swent: Which maybe didn't affect so much?

Dickey: We had, by this time--my family were not--

Swent: Not dependent, maybe, is the right word?

Dickey: Not dependent on the day-to-day working. In other words, we had this ranch. It was self-supporting.

Swent: In California, you didn't have the Dust Bowl or the drought, did you?

Dickey: Where we were, we didn't have all the problems. We were self-supporting as far as food went. Fuel was available. Mainly, it was processed just locally. You see, Ventura and Santa Barbara and all, The Wells, Goleta--they were all pumping, and there were small refineries. So there was no great fuel problem for us.

The Ranch at Ojai

Dickey: This ranch that I speak of was actually a boyhood dream of my father's. When he was a young man, he thought, "If I ever put two cents together, I'm going to try to buy a little piece of property." When he was gainfully employed at Cal Tech, he put money aside, and he was able to pick up--I don't remember what it was. I remember it was fifty-seven acres plus, I think, another thirty. They were two pieces that he put together, and it was all in citrus. It didn't have a house on it. It had sort of a caretaker's house. My dad had an old farmhouse that they had fixed up, and then it was my father's dream that someday they would build their home there. But they did have this little shack that they could go to.

Swent: This is near Santa Barbara?

Dickey: This is in Ojai. It's within almost rock-throwing distance of the school where my dad went. Like I say, it was nothing but a retreat up until probably the time of my father's death. It was self-sustaining. In other words, we were doing well enough on the oranges and the grapefruit and all that we could hire a crew. The crew consisted of a foreman and one helper. We joined Sunkist Cooperative, so they provided neighbors for picking and fumigating--all of that. Basically, all we had to do was just irrigate.

My father had obtained a wonderful secretary from the L.A. County Library. My dad said, "Would you come to work for me?" And Mrs. Virginia Kraft said, "No, I don't think so. I'm very happy with my job." My father kept after her, and kept after her, and so Mrs. Kraft finally tried to find out what kind of a nut my dad was that he wouldn't take no for an answer. One day, he walked into the library, and they have these sliding ladders--wheels on the bottom--and poor Mrs. Kraft was way up on the top of this ladder. I think she was about five-foot-two tall. My dad walked into the room looking for her, to beg her again to come to

work, and my dad was a severe looking man with a wonderful twinkle in his eye. And he said, "Lady, you certainly have a nice pair of legs." That undid Mrs. Kraft completely. She decided this man obviously was a madman. And, in the next breath, while she's bright red and didn't know whether to be mad or what to say, my dad said, "I would like you to meet my wife." She had never met my mother, and my mother came through the door. Kraftie took one look at her and decided that maybe she would sign on.

Well, she did. She was with us twenty-seven years, maybe thirty years, first as my father's secretary at Cal Tech. Then, when he died, she became first my mother's companion, secretary--everything. Her husband was a mechanic at Ford Motor Company in Pasadena. Mrs. Kraft came to my mother one day when we were going to the ranch, and she said, "Mrs. Dickey, my husband has asked me to ask you something, and I don't want to do it, but I have to. He wants to know whether you would consider taking him on as a ranch hand."

My mother said, "Does he know anything about ranching?" and Kraftie said, "No, he's an excellent mechanic. He's a crackerjack mechanic. You could use somebody up there that knows something about machinery. He doesn't know anything about the citrus business or ranching."

My mother said, "That's an awfully tough question, because I would hate to lose you, Kraftie. I could never get along without you. I'll make a deal with you. If you will send him to Davis, I will pay his way to Davis if we can get them to accept him, put him into a--" not the four-year college, not that part. But Davis very often had programs for ranch managers, and they would be three-months, two-months, five-months courses where they would take people in from various farms in California and coach them in soil mechanics and all of this.

So Phil Kraft said, "I will do it." He went up there for three months and came back with a little piece of paper saying that he had passed.

He became the ranch manager. My mother's secretary became the ranch secretary, kept all the books, and we survived the Depression very nicely. My mother built a home for the two of us, a lovely home, a Spanish home. And, at the end of this period, came the crunch of this darned collection. My mother, at that time, was trying to raise funds. The oranges were becoming smaller and smaller and had gotten about the size of a golf ball, as I remember it. The trees were turning yellow. Mr. Kraft came back to Davis. Davis sent people down. We sent up soil samples. We sent up air samples. We sent up water samples. We sent up

oranges. We did everything we knew how to try to prevent this slide into nonproduction. Our oranges, instead of commanding a premium, were down now to culls that were being dumped in the ocean off Ventura. We were getting some money for them but next to nothing. The word smog had never been invented--no way of soil treatment to prevent the problems that the smog caused had been devised--and my mother had the opportunity to sell. She sold the ranch.

Swent: You think it was the smog?

Dickey: I'm convinced that it was now. The trees have never come back completely, and the smog is worse now. I think there was a lag time where Mother Nature just wasn't quite able to react to this problem, because within a year or two of the time that we left the valley, some of the growers, with the help of Davis and with other agricultural universities helping, came up with some sort of soil treatment to negate either the acid part of the smog, or some chemical reaction was going on and causing this problem. By treating the trees--treating the water that irrigated the trees--with different fertilizers and different chemicals, maybe something as simple as limestone or something like that would equalize the acid. I don't know what the solution was.

Getting Into Mining

Dickey: But we had bailed out. My mother had come here to San Francisco and had more or less committed herself to go into the mining business at that time. This would have been 1938. She didn't know how you got in the mining business. None of her friends told her how you were supposed to do it, and so she fell back on her friends and her relationship with Cal Tech. She said, "Do you have someone that can guide my hand?"

And they said, "We have one of the most brilliant geologists on the West Coast that would be very happy to come up and help you."

So my mother said, "Please get him up here. I'd like to meet him, or I'll come down and meet him down there, and we'll discuss terms."

Rene Engel

Dickey: Now, he was a professor there; his name was Rene Engel. He was one of the finest little men I've ever known. Mr. Engel--I'll have to tell you a story a little later--went on to become one of the heroes of the Pacific War. At the time, I remember a funny, heel-clicking, hand-kissing little Frenchman. He came up to my mother's--a little bit above her waistband, but not much. She took an instant liking to him, and the two of them set off to find a mine. My mother didn't think that she ought to limit her search to California or Nevada or Arizona. She just said, "The West."

And my mother, accompanied sometimes by Rene, but mainly by her secretary, Mrs. Kraft, tramped the wilds of California, Nevada, Arizona, New Mexico. Any time she would hear of something, she would go and look at it. Well, you can imagine the odds of her finding anything were nil. Finally, Engel got us a little closer to what we call the Northern Mines. Now they like to say it's the northern end of the Mother Lode, which I resent, but it's probably true. He was convinced that for a finite amount of money that my mother could afford to put up, she would have a better gamble than any place else, because she could not go into a low-grade mine. She could not go in. Copper was nowhere. Gold was looking pretty good at that time. Gold was similar then, in the late thirties, as it is today. Was it 1932 or 1933?--where it was allowed to appreciate at least to thirty-five dollars. Interest was very strong, and he felt that if she could get into a pocket mining situation, she, with a roll of the dice, could succeed.

Well, he didn't explain to her that he could roll the dice many, many times, and they would come up snake-eyes. Anyway, we wound up after, I suppose, a year and a half of hunting. My mother wound up on the eastern edge of the Alleghany district at a mine called the Dreadnaught. Mr. Engel helped negotiate the option on this mine. We decided that we would do some work in the mine, and so he was commissioned to come up with some equipment for us. The first thing he did, he went out and bought a one-ton air hoist. The one-ton air hoist was a little Ingersoll-Rand machine like this and probably weighed maybe five hundred pounds and could pull two thousand pounds, one ton. He then went out and bought a four-ton skip. The skip was about eight feet square, and I can't tell you how long it was. He got a flatrack truck and dragged it up to the mine.

Mr. and Mrs. Kraft were with us. They were loyal retainers that followed my mother into this fiasco. Kraft took one look at this, and he said, "This man is nuts! It won't even go down the

drift. And how are you going to pull something that'll hoist eight tons with a one-ton skip?"

Engel--it never bothered him at all. He said, "We'll just cut it in quarters, and we'll take it into the mine, and we'll weld it back together again."

Kraft said, "Rene, that's wonderful, but it's not going to pull it up the track!"

"Oh, yes, it'll pull it."

Well, this geologist and Kraft and my mother finally got into it, and we realized that Engel, for all his brilliance--and he was brilliant at geology--was the farthest cry from anybody that we needed on the property at that time. We had to ask him to leave helping us and return to his scholastic work at Cal Tech.

I'd like to digress a little bit, because Rene took a job the next year. This would have been probably in 1939 that he was with my mother, so in 1940, a job opened up in the Philippines, and like so many people not only from northern California, but California, good miners--and we had good miners in those days. California boasted some crackerjack miners--he went to the Philippines. I don't know where he went to work. I can't remember who he went to work for, but when the Japanese struck, he was captured. Rene, who I said was probably five-foot-two and weighed 110 pounds wringing wet, marched in the Death March and wound up in Santo Tomas prison, along with a man named Duggleby who had been with Newmont. Duggleby became very famous because he had the misfortune of being shot as the Americans were approaching Santo Tomas to release the prisoners.

But anyway, getting back to Engel--Engel survived. This little rascal hung on. The Japanese couldn't break him, and four or five months into their session there, he decided the American prisoners were losing their minds--were so downcast, no news was coming through. They didn't realize that they would ever see America again. He thought, "Well, I've got to get them out of that. I think I should teach school." And so he went to a Japanese guard, and he said, "My friend, I would like pencils and paper."

This Japanese guard looked at him and said, "Why?" He must have spoken English or through an interpreter; anyway, the man understood what he wanted. He said, "How are you going to pay for it?"

And Engel said, "Well, if you would give me some money, I would be happy to pay for it. I don't have any money. You took everything."

He said, "No money, no paper."

Engel said, "I'll think of something. Can you get that paper?"

And the guard said, "Yes, for some money I will get you paper and pencils."

Engel went back to the quarters, and he found a nail, and he found a rock. He put the nail up against one of his teeth, and he knocked out a filling. His whole mouth was like mine, half full of gold. He knocked out a filling and took the filling to the guard. He said, "Now this is a lot of gold. How much paper can you get me?"

The guard look at it and said, "Where did it come from?"

He pulled his lip back, and he said, "From my face."

I guess the Japanese, in their odd way of thinking, thought, "Well, this is either a madman or a very brave man." He went out, and he came back with tablets.

Engel took the tablets. He wrote out trig functions in one tablet. He wrote out chemistry formulas in the next one. It was all in an engineering line--physics formulas in another one. He worked day and night making these books. He then asked for volunteers that would like to go to school. Of course, there was nothing else to do other than sleep and eat and drill, and so he signed up, we'll say, twenty or thirty young GIs that had no education. They had gotten through high school, but that's as far as they had gone. Engel started teaching them calculus, chemistry, physics, analytic mechanics, and all of these things. He kept the sanity of these men together for the four years or whatever they were in the encampment. In the meantime, he had knocked all his teeth out.

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Dickey: Gumming his food, in very poor health, but, unlike Duggleby, the Japanese did not see him as any kind of a threat--Duggleby, of course, being a good, tough mine boss, had told the Japanese what he thought of them and told them that he would never buckle under them but he would get the Americans to obey for their own good. Of course, he led them through the war. He was the American camp

commander, and he tried to keep the Japanese and the Americans apart. He tried to explain why the Japanese wanted the Americans to do this and not to do that. Of course, the Japanese hated him, and when the Americans were appearing by the walls to try to relieve the place, Duggleby was taken out the back door and shot out in the woods. His body was never found. The library in Manila now is named for Duggleby, and he was one of the more famous men.

I like to think Engel probably held up as much of the spirit of the camp as anybody--came back here, asked for his job back at Cal Tech, and I think they gave it to him. I'm not positive, but I think they put him back on. And then he got this wild idea about these students, and he had kept all their names. There were thirty men, I think. He went to the chancellor over at UC Berkeley, and he said, "You know, I had some very fine people during the war that I was able to teach, and I wondered if you would be so good as to see if you could give them some sort of a degree."

The Chancellor said, "Mr. Engel, we don't just hand out certificates."

And Engel said, "Oh, I'm perfectly aware of that. I thought maybe you could test them, and maybe if they passed the test, you would be willing to give them something." Well, the Chancellor didn't have any idea what he could do about that. He thought that maybe he should.

So they corralled these kids--they were kids--they were still mid-twenties, high-twenties probably--from all around the states. Somehow, they got them out here, or they sent the test to them and administered them some way that was fair, and these students equalled the graduating class at the University. Now, they didn't have every course, obviously. They were short many courses, but the powers that be--and I used to know the chancellor's name, because I was there at the same time, you see, but I've forgotten it. Anyway, they were passed, and they were given college credentials for the work done by this crazy little man who tried to put a one-ton hoist together with a four-ton skip.

I think he went to work for the oil industry in southern California. I saw him at a geological meeting someplace. He came up--he was in his eighties or maybe even ninety by that time, the last time I saw him. He was in a little white room, with a white smock on, with a slide rule--exactly where he belonged. He would never go any place near a mine or near equipment, but I tell that story, and it would be worth checking into Cal, because I know that this came through to me that this little man had been able to

do this. There are many people from Grass Valley, Nevada City that did survive Santo Tomas. They told me the story. Of course, I decided in 1939 or whenever we had him that he was just a complete joker.

Swent: Came through in the pinch, though, didn't he?

Dickey: He came through, and many stronger men passed by the wayside, I'm sure.

Anyway, my mother, then, was pretty much on her own. We had lost Engel, and my mother turned to Mrs. Kraft and said, "Well, I'm stuck. I've spent some of the money, a portion of it. We have nothing to show for it. I'm either going to have to quit, which I don't want to do, or I'm going to have to find somebody to run the show."

Mrs. Kraft said, "I have a classmate from southern California. We went through high school together, and I have heard that he is a very good mining engineer. I don't know. I know his mother, and I liked him very much. He was a nice young man, very studious--a very nice young man--but I heard that he had gone to South America and that he had worked in South America, and that he's on his way back." He worked during the war, in other words, in South America. Wait a minute. He was on his way to the Philippines before the war, and he was on vacation in Pasadena.

Charles Foster

Dickey: Mrs. Kraft said, "Maybe I could get him to come up and look at the mine and advise you."

My mother said, "Please do it," so Kraftie called down and got a hold of this man's mother. She got him on the phone and asked him as a personal favor to her: would he come up and look at the mine?

And he said, "Mrs. Kraft, I am sorry, but I am committed to go to a major company in the Philippines. Even though I haven't signed the contract, I'm going over there to look the job over, and I don't think California really holds anything of interest to me."

And Kraftie said again, "Would you <u>consider</u> coming up to help my boss and help me?"

And he said, "Sure. For a weekend I'll come up." So this engineer showed up in Grass Valley. We picked him up and took him to the mine. We showed him all over our properties, and we showed him what literature we had, what maps we had, what information we could lay on him at the time. And he said, "I didn't realize that this was as large a property. For one thing, you made it sound like it was one claim, and here I find there are several thousand acres involved."

Swent: This is still the Dreadnaught?

Dickey: This is the Dreadnaught. We picked up, not thousands of acres, but many hundreds of acres in holdings in the eastern part of the district. He said, "I would be willing to gamble for a few months with you here. I know you need help. I'm not all that anxious to get to the Philippines." At this time, in 1939 and 1940, the war clouds were pretty evident. I mean, sure, we didn't know what was going to happen, but something was going to happen, so he wasn't all that crazy to go out of the country.

So we went to work. He did a very good job of evaluating the Dreadnaught.

Swent: What was his name?

Dickey: Charles B. Foster. C. B. Foster. Chuck did quite a bit of exploration work. We put down a winze, drove several hundred feet of drift, did quite a bit of diamond drilling, and without success--with such minor success that we realized that it just wasn't worth going on. Small veins, the contacts with the serpentinites and the various structural features were wrong. The mineralization was wrong. Alteration products didn't seem to fit the scene. There was a model that we created.

Anyway, again, we were sort of in this discouraged state when the manager of the Oriental Mine had the bad luck of going fishing at the lake above us, at the Lake Milton--a great, big, raw-boned Irishman by the name of Ray Hawkins. Hawkins was the nephew, I guess, of "Mr. Hardware," a company of the Northern Mines, Fred Cassidy, who ran the Alpha Stores up there and provided all the mines--Newmont and every one of them--with supplies: powder, oil, balls, grinding rods, anything. You name it in the mining field, he supplied it. He was a very shrewd and a very tough trader, and he grubstaked people. But heaven help you, if he grubstaked you and you didn't perform, you were out, or if he lent you money and you put your mine up as collateral, that was the end of the mine. If you said you would pay him back in six months, he would expect to be paid back in six months. If he gave you a year, he expected his money in a year.

Old Fred wound up with the Oriental Mine and another mine called the Brush Creek. Both mines were his, and he turned the management of the Oriental over to this Hawkins. Well, Hawkins, as I say, went fishing, fell out of the boat, was a tough guy, and so he didn't do anything more about his cold than blow his nose. Two days later he was dead of pneumonia. He died at the mine having refused any medical help of any sort, and Cassidy was left without a manager. He was an elderly gentleman by that time; didn't have any way of managing the mines himself. So he put them on the market.

Donald Dickey (left) with Graydon Beechel, geologist, at the Oriental Mine, 1983.

III THE ORIENTAL MINE: THE FIRST HUNDRED YEARS

Buying the Mine

Dickey: Foster heard about it, and just about the time Foster heard about the Oriental going on the market, the Bradley family here in San Francisco had also heard about the Oriental and Brush Creek. The handwriting must have been on the wall for the Alaska Juneau, because they were looking in California for property. This, as I say, would have been about 1939, I think. I would have to go back to some notes. It could have been as late as 1940, but I'm pretty sure it's 1939.

The Alaska Juneau people had a superintendent by the name of Lou Metzgar. I believe Mr. Metzgar was married to one of the Bradley women. I'm pretty sure that was the case. Anyway, he was on a hunting trip down here, hunting for properties. He had been offered any number of properties up and down the Mother Lode. One was the Harvard Mine, one was the Oriental, the Brush Creek, as I said. I don't think he had anything lined up around Grass Valley or Nevada City, but further down on the Mother Lode he was looking at these mines.

Foster was aware this man's immediately going to make an offer for the mine, and Foster pushed my mother and said, "Mrs. Dickey. We have a problem, as you know, with the Dreadnaught. You don't want to go on, and I don't want to go on, but I think instead of chasing this pocket mining business, I think that we should see if we can't get into the Oriental. I think the Oriental could have a disseminated ore body. I don't know, but there's just something about the geology there that interests me. Some of the old reports--Ferguson-Gannett, Lindgren--mentions this low-grade ore that nobody quite understands, either why it's there or what it is. But if we could get our hands on that mine, I think that by working out good metallurgy, good mining methods,

get production up to maybe a hundred tons a day--" which to us seemed quite a bit at the time--"we could make money."

So he marched into the fray against Mr. Metzgar. Mr. Metzgar came down from Alaska in the fall of the year, in September or October--sometime in that timeframe--came up to Alleghany and walked through the Oriental, took a look at this strange granitic rock that contained some values in gold, and looked at the maps, and became quite interested in the mine. He, more or less because of the stature of the Bradleys--I mean, obviously, they would more or less have first crack at something. They had the organization. They had the engineers. They had the clout in the industry, and a reasonable businessman would probably go with them rather than a woman and a young son and a good engineer--but that isn't much of an organization--and a mechanic and a secretary. That was our total staff.

So Metzgar started doing a little figuring. He had a young driver with him. As you know, it turns out later to have been Phil Bradley. At the time, I didn't know it. My mother knew his aunt very well and sort of got started because of her. I had heard of the Bradleys. I had heard of Fred, of course, and read all about them. I didn't know who he was. He was just acting out of courtesy driving Mr. Metzgar up there. Anyway, late in the afternoon, large snowflakes started to fall, and we can have a snowshower blow up that can drop two or three feet of snow on the ground in a period of hours. Metzgar was so informed, and Mr. Metzgar immediately said he wanted out. He didn't want to be in the mountains during any kind of a snowfall, and Cassidy said, "Well, what about the negotiations?" And Metzgar said, "Well, I'll tell you. I'd like to be in your office down in Nevada City tomorrow morning at ten o'clock, and I'd like to talk to you. I'll bring a proposal at that time," and he marched out the door and left Foster and my mother sitting there.

Cassidy said, "Well, what about you?" And Foster said, "Well, we'd like to put a proposal in, too. We'll be at your office at the same time with an envelope, and we'll put our envelope on the table." Cassidy said, "Now, be very careful, because this is a very powerful company, and Mr. Metzgar--you know, you don't have much of a chance at this game." And Foster said, "We'll take our chance."

Well, Foster had a hunch, and he conveyed this to my mother. He had known either of Metzgar's reputation or of his lifestyle in Juneau. Anyway, he knew that he didn't think much of winter, and he knew that he lived across the channel from the mine but that an enclosed boat launch carried him across from the Treadwell side, where the Treadwell Mine was, and the Bradley home was across the

channel, on Douglas Island. They were on the opposite side, you see, and he'd use this launch to get across.

I remember the story of the mill building being set quite high up on the side of the hill, a hundred feet or two hundred feet up the hillside, so they had tailings room and dump room. He would go into this boathouse, and the door would close behind him, and he would pull up to this underground dock and step out of his launch and walk over to an elevator and push the button. The elevator would deposit him on the main mill floor in the office. So with all the steam heat and niceties, winter could carry on outside, and it didn't really worry him too much.

Well, Foster had a hunch that the snow that had landed on him that afternoon was going to cause him some concern, and Foster also felt that they hadn't had a good enough look-see to just make an arbitrary--throw a figure out on the table. In other words, there were no reserves. Nobody knew what they were looking at, including Foster. They had several showings underground where the old Dane workings had banged into this granite intrusive, and nobody knew what it was, so they just abandoned it and went around the other way.

Foster and my mother sat down that night, and they drew up a piece of paper. They stated what kind of finances they had, and they were quite modest. They stated that they had a full crew of miners at the Dreadnaught Mine, in a bunkhouse at the Dreadnaught, ready to go. We had compressors, we had powder, we had rail, we had all the necessities of going to work, that we were sure that the men would be very happy to go with us, we had a good foreman--Cecil Vivian--that we could be at work within two to three weeks. It would take us that long to move the equipment, move the men, find housing for the men, and get them over to the Oriental, and that we would like to be at work in two weeks. We would guarantee x number of shifts a month to show our good faith. We would guarantee a NSR [net smelter return] royalty of someplace between 7 and 10 percent on grade, that we would maintain the property in as good or better condition than it was in, that we would upgrade the mill to a modern plant from an old stamp mill. We put all these conditions down in a line and said, "May we have the option of lease on this property?"

We took it in at the same time that Metzgar came in and put it on Mr. Cassidy's desk. He opened both letters, and as Chuck Foster had guessed, the Bradley interest had asked for six months of stay option. They had offered option money, whatever the normal thing was. I don't know. A thousand dollars sticks in my mind, but that could be off a mile.

Swent: That was a lot of money then.

Dickey: That was a lot of money. A thousand bucks. You didn't--

Swent: It was a lot more then than it seems now.

Dickey: Yes. Now it sounds like chicken feed, but then it was a pretty fair chunk of change. So Cassidy weighed these, and he felt that the thousand dollars might only get him six months of nonproductivity and no work, and he thought on the other hand several thousand tons of ore, maybe ten thousand tons of ore, would be taken out. He would have the royalty on it. It would probably balance out by the time spring came, and so he gave us his blessing. We became the new owners of the Oriental.

Swent: So this was an outright purchase at that point?

Dickey: No, it was an option to purchase. It was an option to purchase with all of the commitments that they had made. Now, there's a newspaper article that I was reading just prior to our little chat here that stated that my mother paid a certain figure--a very handsome figure, I might say--for the Oriental. I don't believe that was correct. I don't remember that. I remember that we were on a lease option up until the Second World War, through the war when the mine remained idle, and when we went back to work in early fifties.

What arrangements were made later, I'm not positive. I'd have to go back through the records. I wasn't any part of them. But I know that Mr. Cassidy came to us after the war and volunteered to reduce royalties. He came to my mother, and he was a very funny fellow. He said, "Mrs. Dickey, you can't make it with thirty-five- dollar gold and today's wages. You know it, and I know it."

Foster was still with us at that time, you see, and he said, "I would like to reduce the royalties." Well, I might say, for a tough old man to do that in the mining business is almost unheard of, but he was that type of a person. He didn't give quarter; he didn't ask quarter, and yet if he saw something was out of line, he would make amends.

I think during that time we were picking up other property. There was a property called the Gold Star, which had been put together by Senator Engelbright and an engineer--he was a county surveyor for a while--I'll have to think on it. It'll come to me. But anyway, it had been a land position put together by these people that wanted to go into one of these tertiary channels. They had tried it, oh, starting in 1917, I think, or 1923--

someplace in that range, and had failed. They had gone in after a Chinese company. The Fong Lee Company had been in there. I think the Chinese had pretty well cleaned out the limits of this channel, but the land was still an entity. The basic hundred and forty acres was still together, and then there were several hundred acres of unpatented possessory land around it. My mother had the opportunity of buying that, and I remember I was part of those negotiations. We paid ten thousand dollars for that part.

I think probably in the same time my mother and Cassidy quietly came to an understanding, and a sale was consummated. Various people that had been involved in the early days--George Gamble was the son of Gamble, Procter & Gamble, and was very prominent in mining in California. He had been part of the Oriental group. Bert Austin, another engineer that went on to fame and fortune, had been a partner and probably the advisory engineer for this group beforehand.

Swent: Gamble was the Gamble of Procter & Gamble.

Dickey: Yes, there were two sons. One son chose to make soap, and the other son chose to go mining. His story, of course, is quite famous, and I'm sure it will be told someday, because he started the Eagle-Shawmut, which is now under water down in the southern part of the Lode and worked his way up to Alleghany and wound up with the Kenton Mine, and sold the Kenton Mine to us in 1939--the same time and the same period--to use as housing. He was going to tear these houses down, and the houses were quite modest--little clapboard houses that had been built by him or by a group of Swedish carpenters, three Swedish brothers, two of whom spoke to each other, and they didn't speak to the third.

So they finally built a house, and they started diagonally across the house. Two of them built, you see, on these two walls, and the other brother built around this way. Well, they tried to lay the house out as carefully as they could, but years later, when I had to put down linoleum, and I had to buy rugs and things like that, nothing in these houses fitted, because they weren't quite square, and they weren't quite plumb. One brother would say, "Now you tell that so-and-so over there that I expect him to change this and so," and then that's the way the conversation went. This camp was built in something like three weeks. Again, Mrs. Kraft was able to convince Gamble that it would cost him more money to take the camp down, load it on a truck--as I say, it's just one-by-eights with one-by-three battens and tin roofs. It's hard to take something like that down.

Well, Gamble was going mercury mining, and he was going to a little town called Knoxville. He had the world by the tail,

because he was convinced in 1938 that something was on the horizon, and mercury was going to be the place to be. He lost his superintendent. His superintendent, by the name of Wilson, had stuck a pick in his foot during the previous winter. The doctors hadn't been able to get to him. We had a Dr. Paget in town at the time, with Dr. Paget and Dr. Prescott taking care of the Sixteen to One Mine and the Tightner Mine. They skied down--I remember it would have been either 1937 or 1938, in the winter, and of course his leg was just gone. The blood poisoning had reached his knee, and the doctor said, "I can't get you to Grass Valley. There's no way we can get you into a hospital. Get up on that table, and we're going to take your leg off." They couldn't even get him back to Alleghany. I mean, there was no way in this snow to drag him back up the hill, so they took Wilson's leg off.

That sort of ended Gamble's career, we'll say, in the district. He was amenable to allowing us to both buy his holdings there but mainly to get these buildings. Of course, we used the buildings to house the crew for the Oriental. All this went together at the same time.

Swent: The Kenton is right by the Oriental.

Dickey: The Kenton is right next door. It's practically next door.

It was mined for four years by Gamble, and they did a very good job--successful mine. It paid off. I think, in the final, when Gamble settled his account with Wilson, Wilson said, "You know, I've been in this business all my life with you, George, but I have--" I think it was either one daughter or two daughters--and he said, "My percentage now will put these two girls through school, will see me in some sort of a retirement place. Nobody needs a one-legged mine boss. I'm ready to call it quits," and Gamble said, "I feel the same way. I'm going to call it quits." Gamble was a man of sizable resources. Wilson was a very poor man of modest resources. I think they came out of Stanford together. They just liked each other, and they spent their working careers together until Gamble went to Knoxville.

We wound up with the camp. We wound up with the option on the Oriental, and we went to work under the supervision of Chuck Foster. We started mining granite for the ore content.

Early History of the Mine

[Interview 2: August 10, 1989] ##

Early Discovery by Chinese and Hawaiian Miners

Swent: We had ended where you were just ready to start mining granite for the gold content at the Oriental Mine. The Oriental is a historic old mine. When was it first mined?

Dickey: I think the Oriental was probably discovered in the earliest days of the Alleghany community. The name stems from the fact that we had a great number of Chinese and other Orientals in the district in our early history. What had happened, when they came to California to follow the Gold Rush, they were immediately discriminated against, tossed out of camps, given a very, very rough time. They were still determined that they were going to remain in the game, and they bypassed the Forty-niners. By bypassing, I mean they would jump ahead of them on the streams. Now, the early days, most of the mining was done down on the lower rivers down near Coloma and down on the outreach of these rivers. Well, the Chinese and the Orientals would start up the ridges. They started working in the smaller streams where they weren't bothered, where they were in places even in a majority. They just sort of had the pickings to themselves. Our little stream that runs through the mine camp, right through the middle of it, is called Kanaka Creek. It's a tributary to the middle fork of the Yuba.

Swent: That's a Hawaiian word, isn't it?

Dickey: Kanaka is Hawaiian. It's the Sandwich Islands. What had happened, there was a great deal of communication across the Pacific during these early days. There was probably far more in the Pacific than you would have to our East Coast. It was faster and easier, and the Sandwich Islanders heard about these gold strikes, probably in 1848. It could have been as late as 1849, but I would say in 1848.

They already knew something was going on, and a group of, I believe, warriors, the story goes, one son of King Kamehameha, decided that they would send a party over here. The story was that they were actually boats similar to war canoes. They arrived in California. It was assumed they were Orientals, or Indians, or bad guys, immediately by the whites, and so they were pressured to make the same leapfrogging motion. They wound up on Kanaka Creek,

later named for them. They did very, very well. They were a band, as I say, of Kanakas, or Hawaiians.

The story goes--and I've seen it documented several places--that they amassed quite a fortune of approximately seventy thousand dollars, I think is the figure I've seen. They were on their way to take it back to the islands when they ran into a group of Chinese in Marysville, I believe it was. These Chinese relieved them of a percentage of it. I believe it was in a joss house or in some game of chance, and the Chinese were a little more skilled than the Kanakas. Anyway, they did get back to the islands with quite a good stake.

Swent: This would have been early 1850s or so.

Dickey: Yes, I would say that was about the period. They left their name, of course, on our little stream. The Oriental Mine came into being around, I'll say 1853 but maybe a year or two later.

The Kanakas, of course, sort of passed through. But as the whites arrived in the district, they worked with due diligence until they reached the town of Alleghany, or below the town of Alleghany. Suddenly, the gold concentrations in the stream absolutely stopped. They were just cut off as if the river or the stream had ended.

Most of them became very discouraged and promptly marched over the hill to better diggings elsewhere, which seems to have been the case all over. The Forty-niners were forever beset with stories of better diggings elsewhere, and most of them--or a large majority of them, I think--probably didn't really settle down to work out a particular bar or a particular stream. If they would hear of better diggings, away they went.

Well, there were obviously a few souls that were more prone to remain fixed, and they were more curious as to where and why the gold either stopped or the gold began. These people, after the main stream placers had been worked out, they started following the smaller and smaller tributaries to the small creeks. They were actually on the hillsides, just on little annual, sort of, runoff rivulets or something like that, panning. Sometime during this period, they must have run across the Tertiary placers that are high on our ridges. They probably didn't recognize them for what they were, but they contained gold, and they thought, "Well, we'll at least work here for a while." Within a month or two, of course, they realized that these deposits were taking them underground, and they were led into these large river channels into the side of a mountain.

Geology of the Mine

Swent: These were underground rivers?

Dickey: They were underground rivers, right. The topography of California, of course, was just reversed. Our rivers were north and south in this period before the Sierra uplift and all. Most of our rivers traveled, I believe, down and emptied into Baja [California]. Much of Baja, of course, was connected to our area at least over into Nevada. You remember most of the lakes in Nevada were still connected down to the southland. It wasn't until the uplift of the Sierras that the rivers started turning more to the west. Even though there had been a prehistoric Sacramento River dumping into the bay here, the new ones all started flowing towards the bay. These older rivers were just left up on top of these mountains. Of course, they went into, let's say, the north side of the mountain and came out on the south side, and then you went across a new canyon. Then they disappeared again on the next range.

In the process of looking at these basically gravel deposits, they must have stumbled across quartz outcrops--the few quartz outcrops on the surface. At the time, I don't think they made a correlation between the fact that there was gold in these outcrops and the gold that they found in the streams. I think that probably the light dawned when they hit an outcrop underground in one of these Tertiary channels, and probably it had high-grade gold right in the quartz. So they had to be aware at that time that this is where at least part of the gold came from.

Swent: This was the Mother Lode they were looking for?

Dickey: Yes, the Mother Lode that they so named. The only confusion was that when they would look at this gold in the rock, the gold in the quartz was actually a different color than the gold that they had been panning. The gold that they had been panning was a much darker, a much more orange, a much richer gold. This correlation was very difficult for them to understand early on, that they didn't quite see that they were dealing with two completely different types of material. The original Tertiary deposits--where they came from, of course, is unknown. They certainly came from a great deal further north than we are today in Alleghany. As the river in our particular area flows in a southerly direction, huge rivers--three hundred or more feet across, gravel any place from ten to several hundred feet thick--

Swent: This is what you have in the Oriental?

Dickey: It's on the property, and this is why I bring it up. We are not a gravel company in any way, but these workings happen to be on the property. I'm convinced that in the search for this type of gold and this type of mine, they stumbled across the Oriental. The Oriental merely received its name because there were so many Orientals in this little ravine where the Oriental is situated.

Swent: But your mining is up on the hillside.

Dickey: We're pretty far up. The discovery is right on top of one of the higher ridges, and the discovery is probably thirty feet below the andesite capping, which hides the ridges from exploitation or from sight. The original partners that went into the Oriental were very, very lucky, because just the slightest movement downhill, the capping would have hidden the mine completely. It would have been necessary to find the apex or find it probably in one of these channels.

Let me go back a bit to these two types of gold. There are many, many theories today as to where the Tertiary gold came from. I don't want to go into them because I'm not a geologist, but people feel today that some of the gold could have been more or less eroded and concentrated in place, in a former flat area where the gold could have been put into solution and then reprecipitated and then back into solution again. And the size of the nuggets and the weight of this gold is far greater than what we see in the veins today. In other words, even if you took a large pocket from our area and somehow hammered it into nuggets, you wouldn't find the size of gold that you would find, say, in the Ruby Mine, which is just across the hill from us. It is thought that possibly there's been an enrichment, we'll say, both in quality, or fineness of the gold, and also in the size of these nuggets.

One of the things, of course, that puzzled the old-timers was that the gold in our veins had a fineness of maybe 790 or 800--some place in that range--and yet all the gold that they had been mining in the streams was in the 900s, going up into the 950 and maybe higher than that. They could never quite understand how this came about. I'm not sure that the answer is completely clear today, but I know that much of the material that went down Kanaka Creek, went into the Yuba River, went down into the flood plains of Marysville and was later picked up by the dredges, was of this much higher grade or higher fineness gold from the original rivers. It was sort of a stumbling point for quite a while for the old-timers. They would see this, and they couldn't justify how. They could see how the gold could be hammered out of the veins and become placer gold, but they couldn't square the difference in the fineness that we have.

Swent: I hadn't realized that there was that difference in fineness.

Dickey: This was one of the other stumbling blocks. The quartz veins--

Swent: It's more than just having the edges knocked off by the stream.

Dickey: Yes, it's more than that. It is much more than that. There is one school that says you can have microorganisms that are busily chewing away on the gold and dying with gold skeletons and adding to the gold nugget. I've read articles on this, but I think that the thing that fooled the old-timers was that the Tertiary rivers overlay the veins of the Mother Lode or of the Alleghany District. We are now supposedly part of the Mother Lode. We always used to call ourselves the Northern Mines, and we were very particular when somebody said, "Well, you're just the northern end of the Mother Lode." We didn't think that at all. It's only been in the past few years that geologists have decided that the Mother Lode ran right through our back door. The Tertiary drainage pattern in our veins are almost on top of each other, so as the miners were traveling from west to east up the streams, they came to this area. The gold stopped. So the gold both from the high-grade veins and from the Tertiary channels stopped at about the same point. As they went further east up the Sierras, there was nothing.

Swent: In the streams.

Dickey: Nothing in the streams, and so hence the work on the mountainsides that led to the discovery of these mines.

Swent: Why would it have stopped?

Dickey: Well, because, you see, they were working. They were working at right angles to the veins, and at right angles to the Tertiary rivers. When they got on the other side, of course, there were no more. You see, they just banged into it at right angles like this as they went upriver.

The problems and the unwinding of these problems was something that took several years. In other words, they didn't have a picture of the big rivers or the source of the rivers. They still don't know the source of the rivers today, because as you go north from our district, you go into volcanics. The basement rocks and all--everything is hidden. Nobody has been able to either expend the funds or drill to find out what goes on as we go north.

I think the fancy term is laterites for this weathering in place that I spoke of. I couldn't think of the word for a second,

but there are many acids and various agents in nature that will put gold into solution. We think that there are only a few, like *aqua regia* or cyanide or something, but that isn't quite true. There are many others. There are chlorides, and there is cyanide in nature, and there are many, many trees, and bushes, and plants that throw off cyanide.

Of course, gold can be put into solution, and it can reform. So possibly for the people that feel that this is one method of getting these sizable chunks of gold that turned up in these rivers, it's a viable answer. I think in Australia they feel that many of these huge nuggets that they're finding right on the surface--people with metal detectors wandering along, you know, suddenly coming up with a hundred-pound chunk of gold--they feel that this is probably due to the same process of weathering, and then reconcentration, and weathering. Where you have a flat surface, which our area was originally before the uplift, you can have this process going on in place, and the gold is not washed away into the streams. It <u>can</u> increase.

Swent: So, I guess, back to the Oriental?

Dickey: Back to the Oriental. Well, the discovery of the Oriental, then, is in about this period--in about 1853. By 1860, we had a group of people--they were called a company in those days. Actually, it was a company formed up of partners. It was a true partnership of miners that threw in their share. Each man represented a share. In this case, they actually staked the property, and so they were all equal shares. If somebody else had owned the mine, the mine would have taken a share or two, and then the partners would have put their labor in.

Well, they started right at grassroots, and the original partners probably hit on a major pocket within the first year or two of their work. So it was almost self-supporting from the grassroots stance. They had no equipment to speak of. The records we have show that they were working up the material in hand mortars. Now, it's not quite as crude as bending a sapling over and putting a big rock on it and pulling it up and down on another big rock, but as far as I can see, it's darn near that bad, because they were using black powder when they got more than five or ten feet underground. This was a very poor setup. They were single jacking. Everything was done the hard way, including the recovery of the gold.

Swent: I'm just thinking of that very steep canyon. How were they getting up to this?

Dickey: Well, they primarily came up the ridges. They found that by following the hogbacks or the ridges, you see, from the valleys--they were coming down from the top. The canyons were rough enough--there were enough falls and enough narrow spaces--that if they tried to come up the stream like the Chinese had, and like the Kanakas and all, it was just too tough on the horses. The mules didn't like to come up through the cold water, and they were very unsure of their footing. It was very difficult to bring a mule up unless you could provide some sort of a flat place for them or a trail. Originally, there weren't trails. They just sort of picked their way through the woods, and trails slowly formed as they came up the ridges. Of course, they came down to all of the mines up there--every one, none of them come to the top of the ridges due to this capping business that I spoke of earlier. They had to look under this horizon. The horizon's about--oh, let me see. In our area it must be about 4000, 4200 feet, someplace in there. They would get below that, and they would just set up a small camp: tents, shacks--

Swent: Would they find this by looking from across the canyon and seeing an outcrop?

Dickey: No. The vegetation then probably was as dense as it is today. They would actually find it right on their feet, just hard walking.

Swent: Just tramping around.

Dickey: Just tramping. Probably, again, you might be able to add on to the process, I told you, of coming up the streams, then the smaller streams. You can do the same, of course, below a vein. In other words, a vein that is weathered in place will throw a trail, or today you might even call it a halo, of gold. Because this gold is of a large nature--heavy gold--you could have panned for it. They could have traced it right to the vein by panning, even if the vein were covered with a certain amount of detritus or pine needles or something like that.

The Oriental, as far as I can see--it outcropped, but it certainly was not very evident. In other words, you wouldn't have seen it from more than ten feet away, or something like that, or twenty feet away. They were probably just scratching their way up the hillside, using pans and picks. They probably found this white quartz, and with white quartz, of course, it rang a bell immediately. They started hacking away at it with hammers, single jacks, and picks. They must have been lucky early on. I suppose that.

The Oriental Mine up to the 1880s

Dickey: I don't have the original days of the Oriental, but what I'm able to dig up in newspaper articles--and we did have a newspaper in that time, believe it or not, in Downieville. I think it was, if not the earliest, it was the earliest paper still in circulation today, the *Mountain Messenger*. I've done quite a bit of work going back through that, trying to put together these bits and pieces of information. I trust that they're semi-accurate. I know a historian would take severe umbrage, or something or other, if I couldn't come up with something better than a newspaper article. But, unfortunately, that's all we had. What we try to do is cross-reference them or go down to The Bancroft Library or something and look at other papers of the day and get enough of the circumstantial part to say, "Well, this probably happened." We also have the Bancroft history books, and we refer to that. Most of my early knowledge of the mine dates back to these publications.

So they started. They were a group of six, I believe. They all had equal shares. Presumably they all worked as hard, one as the other. They just started down on this vein, probably using hand buckets and pulling the ore up. They had, as I say, no semblance of any machinery. They used single jacks, so they must have had a forge. We have found, on the property, old, old, old bellows--some of them huge, some of them six or eight feet long. Those probably date later on. I would say they date in the 1880s or maybe probably as late as 1900.

Swent: What were the bellows made of?

Dickey: Wood and leather, probably.

Swent: And you found them in recognizable shape?

Dickey: There wasn't enough left to reconstruct, but the size and the brads--they used brass tacks with a large head. The leather around the outside of these bellows had been tacked on, with one tacked just as close to the next one, the heads all together, and then a funny sort of a leather flapper in the center, you see, which closed as they came down on these bellows. That was all the equipment they had--just that forge. They probably had a bucket of water to temper the steel in. Everything else was just handmade.

Swent: Wood for fuel, I suppose?

Dickey: Wood for fuel. Later on, as the mines developed, gradually the wood started disappearing. This was the case all over the world in mining camps. The first mechanized equipment that came in was steam-powered. Of course, they burned up everything they could stoke into the firebox. So pictures in the 1880s on up into 1900 show our hills as almost denuded of any vegetation whatsoever. They burned everything.

We have records of the quantity of fuel used. I'm referring to an article I read not too long ago about a Burley drill. Well, a Burley drill is one of the original drills, I think, developed for use in Virginia City in, oh, I'll say, the late 1860s on up into the eighties or so. We happened to have one at the Oriental. We have complete documentation on the care and feeding of this monster. Well, the cords, the cords, of wood that were used in a day were something like five cords, I believe. I'd like to check that figure, but just unbelievable. And so you had more men actually working in the woods, during this period, trying to bring in wood, than you ever did mining underground.

But this wasn't the problem in the day that we're speaking of, in the mid-fifties and early sixties. Their wood was needed for the forge. They didn't have coal [charcoal], and yet I'm sure that coal was not too far a-coming. I think that probably suppliers started making coal [charcoal] locally, burning the wood locally for coal, and then they would trade it or sell it to the early miners, you see, to use in their forges. Steel at that time was, of course, not of the quality of today. I'm sure the tempering was anything but great. And yet just the amount of work that went into driving down the shaft must have been just horrendous. And the living conditions were terrible.

Swent: And only six people.

Dickey: And six people. They were all interdependent. Somebody had to cook, and somebody had to shag wood, and somebody had to mine, and somebody had to beat the rock up. You wonder how much they actually got done in a day.

Swent: Probably somebody had to stand guard.

Dickey: And somebody probably stood guard, right--if not guard against other miners, guard against the wild critters that we had wandering around in those days. The poor Indians had been pretty well chased farther back into the hills by those days, so they certainly played no part other than maybe pilferage or something like that--a very sad part of our history.

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Dickey: Many of the cabin foundations--I won't say the cabins--are still visible on the property. Most of them have been dug for artifacts, of course, years ago, long before we came on the scene. Most of the good things had been taken away, but we still find bottles. I found a wonderful bottle just two weeks ago. I was digging out an old portal with a tractor preparatory to doing some drilling work, and just under the pumice, or whatever you call the surface detritus, a beautiful wine bottle rolled out. It was an odd size for a wine bottle--a beautiful thing. Anyway, these little houses--when you look at the foundations, they were maybe ten feet by twelve feet, something like that. How to stuff six men into something that small--

Swent: They probably didn't spend much time in it.

Dickey: The daylight hours, obviously, they were out working. The only time they were in the cabin was at night. They probably ate outside for nine months of the year rather than smoke up the inside of this poor cabin. Life was very, very hard.

The fact that they were able to get maybe a hundred or more feet underground is a great tribute to them. Within that hundred-foot distance on the vein, they took out a major pocket--at least one. When I say major, let me say, a hundred thousand dollars. That's pretty major. And, of course, they got to fighting over whose share was worth more than the others. The whole company fell apart. In other words, the partnership fell apart. The willingness to go on collapsed. The original people went away with a proportion of that money. I imagine most of them blew it either gambling or on other sundry pastimes, had nothing to show for it. As far as I know, their history was no longer recorded. They didn't go on to greater mines or greater things. They dropped by the wayside.

Then we went into a period of more or less promotional companies that worked the Oriental. In those days, there was a tremendous amount of stock manipulation here in San Francisco, and it was due mainly to the influence of Virginia City. There was a great loss of mining people in the Sierras during the 1860s, '70s, and '80s. There was so much more attention being given to Virginia City that our miners, or what were so-called miners, were all tramping for Nevada. So many of the mines just lay fallow. Assessment work wasn't kept up. Staking fell apart. Nobody knew where the lines were. Nobody particularly cared. So there was a period that far fewer people mined in our area.

Now, the Oriental name during this period, up until the 1880s, had two name changes. One was during the Civil War. It was considered a good idea to name it the Union. Even though the

district probably was equally split North and South, the group that was involved with the Oriental at that time was very strong for the Union. So they renamed the mine and, I'm sure, came busily down into San Francisco to sell stock--became a stock company. They continued on for a number of years, and I would have to go back to my notes on how many, but they eventually went broke. Another group came in, and the name was changed to the Golden Gate. The Golden Gate operated the mine for several years, and I believe the Golden Gate was funded out of the East Coast, out of New York.

Sometime during the late eighties, the mine was semi-successful. Part of our claims were patented. The original Oriental was patented during this period. Other claims were put together in a group, and the Oriental began to sort of develop a land position. There was a property called the Gold Star, and the Gold Star actually was a Tertiary underground mine. This was consolidated with the Oriental Mines. Other local small mines--one is called the Alta, and one was called the--oh, what in the world was the name of that? A girl's name, and I can't even remember it now. It isn't a claim name, but it was brought in and then renamed an Alta extension. We gradually built up quite a sizable holding--maybe a thousand acres or more with the combining of these claims--much the history of larger companies and the putting together of larger companies. Also, as I say, there was interest being shown on the East Coast in many of the mines in California after the Virginia City fiasco on the stock exchange here had scared people. Money was much more difficult to come by than it was in the earlier days.

Swent: Virginia City was silver, though, wasn't it?

Dickey: Silver with a minor in gold, you see.

Swent: I see. Yours was gold--

Dickey: Gold with a minor in silver. It was just the exact reverse. In other words, it was about a four-to-one gold-silver, but gold being so much more valuable than the silver, it amounted to a great deal more in our district. Silver is just sort of a by-product, where in Virginia City it was just the other way around.

John Mackay

Dickey: During this period--I think I'm going to backtrack a bit--one of the people that I have admired through my career was a gentleman

by the name of John Mackay. Big John, or John Mackay, got his start in the little town of Alleghany. When I was a young boy, early teenager, I can remember being told by the old-timers of that day: "You see that shack down there? That was John Mackay's." Well, the shack was just a collection of boards that had been nailed together and had pretty well fallen down.

I really didn't believe the stories until later on. I started sort of researching Mackay's early days, and, sure enough, I did come up with enough documentation to satisfy me that he really had made his start in our mines within a quarter of a mile of where the Oriental is. He then went to a mine called the City of Six. The City of Six was just north and just east of us. It was one of these Tertiary drift mines again. He worked there. He worked on shares originally, and if you can believe Mr. Canfield's book and all, and some of Mackay's diaries, that he became the boss of the City of Six Mine. He was right up on top of the hill, of course, even higher than we were, because he was north of us. He would spend his weekends going down and courting a young lady in Downieville by the name of Hungerford, I believe. Also, he traveled from Alleghany the other direction towards Moors Flat, which was probably the largest area of civilization we had in our area in those times. They had a racecourse for horses. Big John seemed to be very interested in horses.

But anyway, he's a man whose history I've sort of followed through his career, mainly because of the insight he had in the working of mines, the way he worked mines, the man's integrity, the man's refusal to be swept up in the various games that were played down here. Now, I don't think history particularly bears out that statement, but of the Big Four, I would say that John Mackay probably was head and shoulders above the other three as far as his ethics went.

Swent: The other three being--?

Dickey: Flood, Fair, and O'Brien, I guess.

Swent: And Mackay is the one for whom the school of mines in Reno is named.

Dickey: Yes, where I later wound up. Mackay was a mining man through and through. He spent as little time as he could playing with stock, and trying to start rumors, and trying to stop rumors, and trying to earn money on the fluctuations of the stock. Mackay mined. That's what his interest was. He was interested in getting silver out of the ground or gold out of the ground. The other held very little interest for him.

That is not true of O'Brien, of course, and Flood, or Fair, for that matter. They were all men of very, very modest backgrounds. Most of them, instead of going directly into the mining business in California--I think at least three of them decided it was a lot easier to get into some sort of a trade. They were actually tradesmen, trading hardware or something like that, whereas Mackay followed the full route of the Forty-niner, and went to mining, and stayed with it the rest of his life--or at least the majority of his life.

The works that I've read that have been written on his life are part of my library, and I refer to them very often, thinking not how he would have done something--I don't do it for that--but I try to maintain some sort of a code, we'll say, that he might have done. He just happens to be one of the people that I singled out who knew the business from the ground up. As you know, seeing as I did not start as a mining engineer--I was not educated as a mining engineer--I had to turn elsewhere for my education. This man's history played a large part.

We've gotten pretty far from the Oriental, but Mr. Mackay lived just over the hill next door.

Grant Schley and the Croesus Mining Company, 1900-1917

Dickey: I'm going to back up many times, but let me go on to bring the Oriental, if not up to date, at least get it into the modern times. A group was formed in New York right at the turn of the century, I'll say right at 1900. They saw that these former companies had put together this land position, and they thought, "Well, this would be a good place to invest, and we feel that we can float stock here in New York. Money from New York will be used at the Oriental."

The company was put together under a man whose name--Grant B. Schley. I think of him only as a financier, probably a pretty good one. He went on, certainly, after the Oriental period. He went on to great things that I'll discuss a little later. At the time, his brother, I believe, was secretary of the navy and was involved somehow in the Spanish-American War and went on to great fame as a military man. But anyway, the chap that we think of--Grant B. Schley--was the moneyman behind the Oriental.

The company at that time was renamed again--Croesus Mining Company. I'm sure that all of these name changes had nothing more to do than the attempt to clean up their act. In other words, if

somebody had been taken with the Union Company, they might invest in the Golden Gate Company. Carrying that further, maybe the Croesus Company would have been of interest to them. The fact that the mine was always the same--I don't know how they got around that. Maybe they just didn't mention the name of the mine.

Swent: They picked names with very good reverberations.

Dickey: Oh, yes, that was part of it. You had to have that in mind. The Croesus Company remained active at the Oriental right up until 1917. Hidden away in my somewhat disorganized files--all of their production, the work that they did, the areas they worked in, is available to me. They actually lost a great deal of money.

They drove a tunnel, our main adit, or working tunnel. They drove four thousand feet through probably the hardest rock in our area. They hit a little quartzite and a little granite, but primarily they were in a gabbro. They were using steam machines. They were no longer doing the single jacking of the years before, but these steam machines were just pathetic against this type of rock. This tunnel took four years to complete. It also was just an extremely bad job of engineering, because their intent in driving the tunnel was to connect with the old Oriental shaft.

I neglected to say that these other companies that came up to that period had all seemed to stop work at about the six-hundred level. They had gotten the shaft six hundred feet on the incline, and they ran into so much water that they could no longer both afford or keep pumping the water. Stories that I have heard also probably have bearing. One is that running the boilers at night when the crew is not working was a rather tedious job, and I believe one night, for one company, the watchman fell asleep. When he fell asleep, the steam pressure went down in the boiler, and he didn't wake up in time to throw more wood on the fire, into the box, and the old Cornish pump ground to a stop. The water started coming up and flooding, and by the time they saw what had happened, there was such an extra load, we'll say, on the Cornish pump that the chances are, in trying to get the water out, they either broke the main shaft or the walking beam or something. That finished the mine for that group of investors.

Anyway, the Schley attack or plan was to connect directly under the Oriental shaft and then raise up to it, thereby draining the mine and allowing them about seven or eight hundred feet of new work. Somehow, the main adit was driven three degrees off the true angle that they should have been on to hit the shaft. They promptly lost themselves underground. They hit a vein that they thought was the Oriental. It wasn't the Oriental at all. It was a vein in the footwall. They wandered off on that. They

wandered, actually, in a ninety-degree bend and, finally, later on in their years, found the Oriental.

When they actually found the vein itself, they were able to do the engineering necessary to align themselves with the shaft. They connected to the shaft, but even when they did that, they did it very poorly. They put in what we call a zig-zag raise. They raised parallel to the shaft, and then they turned it ninety degrees and hit the bottom of the shaft. So you wind up coming down the Oriental shaft six hundred feet, then you go a couple of hundred feet ninety degrees to it, and then you go another couple of hundred feet at ninety degrees to that. Well, a totally unworkable thing. I mean, how do you get a skip or any kind of a hoisting works in a thing that has a ninety-degree dogleg in it? But anyway--

Swent: The shaft is coming in from the surface?

Dickey: From the surface, right, on top of the ridge, and they followed down at about a thirty-five degree dip--they followed down to the six hundred foot level.

Swent: So they weren't going in from the canyon?

Dickey: No. There were no horizontal drifts going into the vein until they hit the six-hundred-foot level. When they had gotten to six hundred feet and they--

Swent: That means six hundred feet down from the surface.

Dickey: From the surface, but on the incline. In some districts, you know, they measure everything vertically, which would be a proper engineering way of looking at it, but in our district, everything is on the incline. So you never really know what it means, because some shafts are fifty degrees. Some shafts follow the vein at thirty-five degrees.

Swent: Six hundred feet from somewhere.

Dickey: So you start six hundred feet from somewhere on the dip, and in our case, for the six hundred feet, you may gain three hundred feet in depth, something like that--not quite that much, actually. But then to relieve the pressure on the Cornish pump, they did run a short drift into the bottom of the ravine. We call it Wet Ravine. It's a small ravine that is right below the Oriental shaft. They were able to take maybe a hundred and fifty foot of head off the pump, so that kept them going a little bit longer. The water was draining from this water drift. Even that wasn't enough. The pumps just couldn't keep up with it.

The Cornish pump was very good in its day, but it did have shortcomings. When you tried to operate them on a sort of a low angle or low depth, it was difficult. They ate themselves up, the bearing blocks wore away, abraded away. The pumps didn't work particularly well lying down like that, so they had big problems.

This adit level that they sank way down the mountain was a very good idea, but somehow, their engineering went wrong, and it was never quite figured out why. We think probably they used magnetic bearings instead of true bearings, and they never corrected it, because I made several mistakes early on in my career, where I was trying to make connections with some of the old workings. I found that these connections were always off. I thought, "Gee, that can't be. Here I have a map ahead of me, and I have a transit. I can't hit the darned thing when I try to make a connection." I realized that in the shaft, they must have used a transit, and their levels were exactly right. Everything was fine in the shaft, but the minute they got out into the drifts and started in both directions from the shaft, they must have gone strictly by magnetic bearings. They probably used an instrument, a forerunner of our Brunton [compass] or something like that, and the maps were just grossly inaccurate. I think that this may have played a part in this horrible adit that they spent so much money on and then couldn't make a connection. The adit, incidentally, cost over a million dollars--in those days, of course, serious money again.

I have found their steel in the canyon. I've taken tons of steel out of little Wet Ravine below the mine. This is sort of one of my chores that I've done over the year. Each time we have high water, I go down and collect all the junk, and I think I'm doing my bit for the ecology or something. Of course, what I'm really doing is looking at the artifacts and trying to date various periods, you see, seeing the tools and the machines that they used. The stories of people still alive in my early day, the stories of driving in that tunnel just make your hair stand on end. I mean, the amount of work and the amount of steel used--they towed in two flatcars. A flatcar is about four feet wide, and they probably had three-foot stakes on the side of it. Those two flatcars were totally stacked with steel right up to the top of the stakes.

Swent: This is drill steel?

Dickey: This is drill steel, and of course it was integral steel. They didn't have bits in those days, and they didn't have anything hard, so they had to temper this steel. Every night, they would temper it and send a new batch in the next day. They drilled for two shifts, and they mucked for one shift. That was the best they

could do on some of this rock. Here they were using, as I say, steam drills, which later they converted over to compressed air drills. You can still see the rounds today. The round is maybe three feet long. The bootleg holes, I would say, are two and a half inches in diameter, at least--these huge, great hammer drills that they used.

It just took forever to do this work because of the rock. It's a tribute, of course, to their stick-to-it-iveness, but it did break the company. We have the total production records that we searched out at the mint and at ASARCO at the foundry [Selby Smelter, Crockett, CA]. The best we can come up with is in the medium five figures. Quite obviously, if they spent a million dollars on that one tunnel, they were in sad shape.

But Mr. Schley went on to far greater things. He stubbed his toe or bent his pick at the Oriental, but he went on to become the head of the Goodman Manufacturing Company which made the little locomotives that you're familiar with, of course; we all had the "Mancha Mules," and all. He also went up north, and he put together another company that later became Howe Sound [Company], and that became a rather well known company. I believe it's called Howe Met now. Don't quote me at that, because I don't quite know how that came up. But he went on to do great things in the mining business, but he certainly got a very poor start at the Oriental. He couldn't have had worse luck. I think that maybe is a comment on our whole district.

Swent: Did he himself come out here, or was he just an absentee owner?

Dickey: I assume that he must have made a couple of trips out, but he had key men. He did all the corporate work in New York, and I doubt very much if he was on the property. I have no record of his <u>ever</u> being on the property. But he had people. He had some quite good miners--miners that went on to fame and fortune. H.L. Johnson was his tunnel boss, and H.L. Johnson went on to find the Sixteen to One Mine, which is the bellwether mine of our whole district, a mine with a production of a hundred million ounces, I guess, and probably our lead high-grade mine. So Johnson was one of the people that worked at the Oriental. Another person that went on to fame with the Sixteen to One was a man named Bradbury. "Cap" Bradbury worked in the tunnel. They called him "Cap"--"Captain." I think his name was Tom Bradbury. [Theodore?] He had some good people under him, but somehow his surveying or something went wrong. Then, when they finally did find the Oriental vein, they had used up most of their capital. They did very, very little work on the vein itself. The odds just were against them, and they went on their way.

That was 1917. The mine was taken over in--

Swent: Did World War I affect the mining at all here?

Dickey: Not World War I, other than men were hard to come by. But it wasn't the same as World War II. There wasn't that much, because most of the good miners in those days were men in their thirties and forties, and maybe fifties. It wasn't the young kids that went to war. The older miners did stay on, but they probably had to curtail tremendously. Powder was very, very difficult to come by, but at least they were able to maintain the mines, keep them pumped out and do a certain amount of work, probably the hard way. They probably high-graded the mines during the war just to keep going.

The Gold Star Mine in the Early 1900s

Dickey: This got us, maybe, up to 1917 with the Croesus Company, but I'm going to back up just a little bit into the early 1900s. These gravel properties had not been joined with the Oriental at the time. I'm speaking of the Gold Star property. It has sort of a parallel history, a very important history, that follows the Oriental up. It was a Tertiary--

Swent: When you say gravel, you mean--

Dickey: The Tertiary again, the drift mines.

Swent: --the whole drift mine.

Dickey: It had no direct correlation or, what should I say, work with the Oriental at that time, but of course now it is part of the Oriental. Its history was such that it was worked by Chinese under American bosses--originally under American ownership. This lasted up into the early 1900s.

I have some wonderful records of the accomplishments of these Chinese. It is something that I want to pursue. As you know, I've asked you about a way of pursuing it here in the Bay Area, because it is so difficult to get at the old records.

But it's the Lee Fong, or Fong Lee, Tong that operated it. It was being operated the same time that the whites were over on this other side, you see, working the Oriental. The leader of this group died, and the lease was given up.

Senator Engelbright, who later went on to fame in our part of the country, trying to resurrect some of the placer mining up there, and a chap named Mark N. Alling, and some other investors, took over this property just before the First World War. They did more work at this mine, and then, probably in the early twenties that we're now getting to, they consolidated it into the Oriental property. This is where we came up with our main land base.

Around 1923, after the war, some gentlemen took over the mine. One was a man named Wilson, and I'm not going to give him a first name, because I can't think of it right now. Another man's name was George Gamble. George Gamble, of course, was one of the two heirs apparent to the Gamble soap company. He was a man that had absolutely no interest in soap or anything that the company did, and he went into mining as a very young man directly out of Stanford, I believe. One of his classmates was this chap Wilson. The two of them--

Swent: Some of this you had covered the other day.

Dickey: All right. I won't repeat that, other than to say that they eventually wound up with the Oriental in 1923. They also brought in a man, Bert Austin, a mining engineer. And they held the mine through the--oh, we'll say, from 1923. They must have had it for two or three years. They didn't buy it. They had it under lease, and they weren't particularly successful. They moved to a mine next door called the Kenton, where Gamble was quite successful. Then, of course, as I formerly stated, they went down to Knoxville and became involved in quicksilver mining.

Anyway, the mine went on the market in the late twenties again, and another group took it over. This time, I'm going to say it had something to do with the Alpha Stores, Fred Cassidy, and the mine was owned by them. I don't know how it got into their hands, exactly. I have a suspicion that it may have been bought at a sheriff's sale, or it could have been taken over for debts run up by the former company. But anyway, it was in their hands when we came along in the later thirties.

About 1938 or 1939, we made a bid on it. I told you, I think, earlier, a bit of how my mother got into the country. We actually got into the country at another mine at the very other end of the district, the Dreadnaught. Then she was involved in a partnership that wasn't a very good one. Foster had come on the scene, and Foster had been eying the Oriental. When it came on the market, we made an offer for it. The offer was successful, and we took over the operation then.

So that sort of gives you a little history up--well, it's over a hundred years, actually, of history. It took about a hundred years, almost, before we came on the scene. The mine had been worked and reworked, and all sorts of theories had been advanced as to why and wherefore of this pocket deposition, none of them particularly successful. I'm still working after forty years or forty-some years with the company; I still don't have the solution. It's very much of a challenge, though, that I've enjoyed my whole working career, is to try to, we'll say, break the hold that Mother Nature has put upon the deposition that we have.

Swent: Now, we got you through the war and through the university at Reno, and then back up to the Oriental.

Dickey: Up to the Oriental. I'm going to have to try to square this--how I got in this business at all. My aims were very nebulous, we'll say, after the war. I came out of the service. I had a great deal of trouble settling down to work. I had very few aims, we'll say, of what I wanted to do with myself. If I had talent, it would have to have been in the mechanical engineering field. The navy had seen fit to take me out of the sky and put me down in the boiler room of a ship, and so I had learned quite a bit about the practical workings of those ships and machinery and all of this. It was a natural bent that I had had, but it was a long ways from where I thought I was going as an aeronautical engineer or as a pilot.

The mine--my mother tried to restart the mine in this period around 1946. I think it was 1946, but it could have been 1946 or 1947.

The Oriental Mine During World War II

Swent: It was closed, of course, by L-208 [War Production Board order closing gold mines during World War II].

Dickey: It was closed; 208 took it out.

Swent: This was in 1942, I guess?

Dickey: In 1942, right. We worked right up to the end, but we were gradually being cut back, cut back. The men were leaving. Those who chose to join the service, of course, left. Some of them decided they weren't too keen for the service, so they voluntarily went into the other--you know, tungsten, copper, et cetera. Then,

of course, the minute that 208 came along, everybody decided they were going to get as far from mining--more or less, to spite the government. I mean, it was one of the stupidest things that was ever done, because when the men were told that they would go into copper mines or something, they all went and joined the military or went into some other field.

Swent: Shipbuilding or others.

Dickey: Shipbuilding. My wonderful foreman of so many years, Frank Knapp, wasn't working for me at the time. He was working, I think, at the Empire. He promptly came down here and became a shipbuilder.

Anyway, the Sixteen to One, the mine next door and, as I said, the bellwether mine, made some sort of a deal with the government that they could stay open on a very minor skeleton crew and produce arsenic. One of the by-products, or one of the associated minerals, in our district is arsenic--arsenopyrite. The Oriental produced a great deal more than the Sixteen to One ever thought of. Most of our ore comes associated with the arseno, but we never thought of fighting it through. Our better men had gone, and we thought that we just would give up. So we left a watchman, and the mine closed in 1942.

Swent: Did you have a water problem there?

Dickey: With the arsenic, you mean?

Swent: Did it flood after you closed?

Dickey: Yes. But much of our work had been done above the main adit level. We did have the start of a winze below the level, and previous owners, this Hawkins-Cassidy group, had probably two hundred feet of workings under the main adit level. So we weren't really crippled as most of the people were. Our equipment underground, of course, that we couldn't get out, deteriorated. Where we did have some timbering, that all fell apart.

As you remember, we were mining a low-grade material at the time. When Foster came in, he was completely against the high-grade pockety nature of this mine. We had been mining this granitic intrusive. We had been working right off the main level. So we didn't suffer as much as, we'll say, the mines in Grass Valley or any of the other mines on the Lode. When the war ended, it was much easier for us to get cranked up again than it was for most. That probably is the reason that we did try it again. Most companies were looking at a horrendous initial charge to try to get the properties back to where they were when they quit. All of the Northern Mines have a certain amount of timbering and ground

support, and many of them just caved completely shut. I mean, drifts, we'll say, in the Grass Valley that were out in the serpentinite and various bad ground areas--they never did get back into them. Just impossible. Be darn near impossible today.

But I was out of school, and my mother determined that she was going to go back in. She still had the same goals, exactly as she had had ten years before, of trying to finance this collection for my father. The Krafts came back to us. Foster, in the meantime, had gone to the Philippines. So he was out of the picture. He resigned, or quit.

Charles and Lucy Foster

Swent: He was working in the mines out there?

Dickey: He was working in the Philippines. He went back to the Philippines. He was hired by Lepanto Consolidated. He went back and put Lepanto back on its feet and made it one of the premier mines of the Philippines, gold-copper. Copper-gold, I should say, because it was primarily copper, but it had a wonderful sweetener of gold.

When he went back there, the mine had been used sort of as a target range for the American bombers coming back from Japan and from various and sundry islands. Every time they saw the equipment at Lepanto which stuck up, way up--it was in the northern province, you know, and it was way up on this hillside--they would say, "Oh, that's wonderful--all that machinery down there," and they would unload all their unspent bombs on it. Then, of course, the Japanese had been mining it, but they were smart enough to mine it putting all of their sleeping quarters and everything else underground. So the air pictures of it didn't really let you know how much copper was being taken out. When they saw the handwriting on the wall, they blew everything up that they could get a hold of. Everything they had done underground, they blew up.

So Foster went back there, did a brilliant job of resurrecting it, went on to a very fine career. Then, when the mine was more or less nationalized, I guess would be the word, he went on with Placer [Incorporated], I believe, and went to Marcopper and created another fine mine. We were left without the leadership of a man like Foster. I might say that he was one of the finest all-around mining engineers that I've the privilege of knowing over my years.

My mother started looking for help.

Swent: Didn't Foster's wife have a rattan business?

Dickey: Lucy Foster. That's right. She built a complete industry in Mountain Province.

As I say, it was an American company with some Filipino participation, but the funding of the company after the war was difficult. There wasn't anything for luxuries. They could rebuild the plant. They could rebuild the mine, but there was nothing really left over.

Lucy, who was a very artistic lady, decided that, as she looked around and looked for things to keep herself busy--she was a woman with tremendous nervous energy. She helped her husband in that she did all the secretarial things for him, helped him with maps and all. But that wasn't enough to keep her busy fingers occupied. She saw some of these beautiful materials on some of the native women that would come in. Most of the women in that area were very reticent to follow the men into the mines. They would sort of hang back up in the mountains, and the men would come in and put in their shift, and then, on the weekends, would go back. Well, she saw all kinds of wood carving. She saw jewelry. She saw beautiful material. And she thought, "Well, if I could sort of put together a group of these women into a sort of a crafts group, maybe I could raise funds for, not the company, but for the miners." So she sort of ran a company within a company. She would provide raw materials, if it were dyes or material or something to work with. She also provided marketing for these women. She put together a company called Lepanto Craft.

[pointing to a piece in the room] That lady up there happens to be one of her first pieces that one of the artisans brought in. That particular piece went on and became sort of a trademark of theirs--that face and all.

Swent: What is it made of?

Dickey: It's one of the native woods. It's a hard wood, and I won't take a guess at it. I can't tell you.

This thing sort of grew, and it almost got out of hand. I think that probably Chuck Foster himself was given a certain amount of flak because his wife was busily running this other company. But he took it all in stride and paid absolutely no attention to it, because the money that came in went to build a clubhouse for the miners and then went to build a pool. A percentage was always plowed back into something beneficial

towards the miners as well as their families and the mountain people.

When Foster left the mine, he left more or less under good graces, but he refused to maintain a policy that new management brought in. They wanted to make their balance sheet look a little bit better for that particular year. They were going to take out pillars, and they were going to do this, and Foster said, "That isn't good mining." He bowed out, which left Mrs. Foster, of course, going with him, and left many native women and native artisans stuck way up above Baguio.

Many of them said, "Will you please help us in the future? Can we go with you wherever you go?"

And Mrs. Foster said, "You can't go with me. How in the world am I going to take care of you?"

Luckily, his new job required that he stayed in Manila, and most of the early work done on this open-pit copper thing, Marcopper, was done out of offices in Manila. So some of these women came down with her, and they actually built a factory. Then it became a self-supporting thing completely free of the mine. The artisans became owners in this thing, and they went on to do many splendid things. It may even be going today. I don't know if Mrs. Foster is still alive. Hisae [Mrs. Donald Dickey] and I wrote her last Christmas. For the first time, the letter came back. She chose to remain in the Philippines.

Swent: Was she Filipino?

Dickey: No, no. She was from Pasadena, I think. She was decorated by Marcos. I'm not sure in this day and age whether that's a great honor, but certainly, at the time, it was then. Her work was just splendid, what she did.

Foster died, unfortunately, after getting Marcopper going. He died just a few years past, and he died the way I hope that someday I will go. He was standing on a mine dump planning the next day's work, and he just tipped over, like that. I think that's happy as can be.

Starting Up After the War

Dickey: But anyway, getting back to the Oriental. We were really sidetracked, but of course these people were very dear to us, too,

needless to say. Chuck Foster, as I told you earlier, had been a classmate, I guess, in Pasadena, of Kraftie, my mother's secretary and the company's secretary. She got him originally, of course. When he left, it was a very sad place, because we knew we couldn't replace him.

We had an engineer left over from the old days of Wilson and Gamble and all, this Bert Austin. He helped sort of guide our hand. He would write a report and make suggestions and all, but we didn't have a person on the property. We realized that Mr. Kraft, a wonderful mechanic, a splendid person with the mill and the machinery, but he was not trained in any way in mining, even though he had some experience before the war. We cast around for an underground man, and we unfortunately picked a rather poor one, a man with a great deal of energy, some ability, certainly a man willing to work long hours and try, but the problem was he wasn't very honest.

My mother got into trouble. At the time, as I say, I was not a free soul; I was a soul seeking something to do worth while. I realized that unless I jumped in, my mother was going to lose the property and lose what small amount of money she had in it. So I came back on the scene. My mother, in the meantime, had taken a liking to this chap. He was a very convincing talker, and he had convinced my mother what she should do and how she should do it, and all of this. Of course, here I come on the scene, and my mother knows that I've had a couple of years of schooling and that was about it in mining, and she is torn between her loyalty to me and her respect for this man. Well, it took me several months, if not a year, to prove to her just how dishonest this man was.

Swent: It must have been terribly difficult.

Dickey: It was <u>very</u> difficult for all concerned. The man went away. He was fired by me. As I came on the scene, he realized that his days were numbered. He tried to bring the house down around his ears, but I was able to hold it together. A suit came out of it which we promptly had thrown out of court. The man disappeared to go on, I might say, I won't say fleecing, but certainly using his skills with at least half a dozen other companies.

<u>The Problem of Highgrading</u>

Swent: Could you say specifically what kind of things he did?

Dickey: There were all kinds of--well, highgrading is one of them, which is one of the first problems.

Swent: Which means taking the--

Dickey: Taking a share that didn't belong to him in any way. But many of the stunts involved buying equipment, we'll say, and taking kickbacks, and hiring men that didn't belong on the crew in the first place, to help in highgrading ore and other things.

Swent: So he was selling ore separately on his own?

Dickey: Yes. But it's very, very difficult. We never were able to catch him redhanded and throw him in jail. It was one of these things that we knew he was getting away, but we didn't know how. Until I became a working member of the crew, I really didn't realize just how serious it was.

Swent: How is this sort of thing handled? Are there buyers in the district?

Dickey: It was just a ready-made market. Our district was famous for highgrading. When I say "our district," I'm going to expand it to the Grass Valley-Nevada City district, which did not have ore quite as rich as the Alleghany district. It still had high grade.

Now, the companies that were in the saddle when we first came on the scene--Newmont, of course, was the primary company, and the other company was the Idaho-Maryland, that remained out of the--as we used to use the term--"clutches" of Newmont. When Newmont consolidated the Nevada City-Grass Valley district, the young engineer who was working at the Idaho-Maryland and had much of the stock and all, refused to sell, and he was able to split apart. Errol MacBoyle was his name, and he chose to remain independent and went on to great success.

But getting back to Newmont now--the camp was run with minimum wages. I can't tell you why. I don't know whether it was a decision of the company or the manager or anything, but our wages were very, very low in the Northern Mines. It was sort of expected, almost, that you would make up for your wages with a little bit of what they called "family rock." I would hate to think that this was a policy, but it was a fact. You had middlemen, the middlemen being bartenders, being gold buyers, being jewelers, being anybody in the trade that made a ready market for anything a miner brought to them.

Swent: What sort of wages was a miner making then?

Dickey: Oh, six to nine dollars, I would say, a day. Probably closer to nine dollars. In about this period, I would say it was nine dollars.

Swent: And gold was still thirty-five dollars.

Dickey: Right. So there was highgrading at all levels, and that went up to the superintendent. One of the superintendents at the Idaho actually went to prison for his part, and there were constantly battles going on. The companies would try to maintain the problem under control, and yet it was out of control. I could go on with stories of my youth and being in that camp. At night, if you walked the streets of Grass Valley or Nevada City, we'll say, at two o'clock in the morning, you could hear these little "ka-chunk, ka-chunk, ka-chunk" mills going in people's basements or little Burdan pans, small arrastras or something like that. It was almost a joke.

But along with this, I'm going to call it pilfering because very few people really got rich stealing, but everybody stole a little bit. Some of the stories that had been written on the district on how the gold was taken out of the mine--a mule would die; the mule would have an incision made in his tummy, and gold would be put into it, high-grade ore, then somebody would be hired to drag the mule out, and he would have his partners. They would go out to the rendering works and get the highgrade back.

At night on the swing shift, skip number twenty would be coming up. A few sacks of highgrade would be thrown on it. Just before it got into the headframe, a man happened to be standing there. The hoistman would stop it before it went through the dumping mechanism. Sacks would be thrown out the window. A man would happen to be walking nearby or would be driving by with a wagon or something. It was a game, and it went on, and on, and on.

Of course, we fell heir to it. When I first took over the company, I would have miners calling me from Nevada City or Grass Valley and say, "Mr. Dickey, do you have family rock up there?" Of course, that was a tip-off to me immediately as to what this man expected. He expected to be allowed by his foreman or his shifter to have a little bit, to take a little bit. The password was, "Don't steal too much." Of course, all of these middlemen that were buying the highgrade, are all in place. The war didn't last that long, so people that were in the business in 1942 were still in the business in 1946. So highgrading still continued just as strongly as it had before. There was a ready market.

There's a ready market to this day for anything anybody brings in. Today, if I went into the bar at Alleghany or something and wasn't known, and if I just happened to show something on top of the bar, I'm sure a bid would be offered.

Swent: Of course, in those days, it wasn't easy to sell it. It wasn't easy for the middleman, then, to sell it either?

Dickey: No, but the gold laws--we had the gold laws, but they got around them so easily.

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Swent: Supposedly it all had to go to the government.

Dickey: It all had to go to the government, but you would have people--these buyers would have their own mine. In other words, the main drop, we'll say, in the Alleghany district, happens to be the local bar, which is usually the case. If you want to unwind any highgrading string, you start with the local bartender, or something like that, or in the old days in a house of ill repute. You know, I can think of a dozen places where a miner would go. They would have their own mines, or they would have their own jewelry business. You see, they had a license. They were allowed to melt gold, which was a no-no, of course, under the treasury laws. They had every reason to have it, and these middlemen would have some sort of a legitimate reason for dealing in gold.

Now, if you caught a highgrader redhanded with a specimen in his house that hadn't been melted down or treated, you couldn't nail him for it. If you got him, maybe, coming out of the mine carrying a sack on his back, yes, you could take the sack and haul him in and put him away. But they weren't that stupid. They were very, very intelligent. It was a tremendous game.

It was a Cornish camp. With all due respect, and I have the highest respect for Cornish miners, they had a firm belief, and they have it to this day, that the good Lord put the gold there in the ground, and if management gets the gold, fine, and if they get it, fine. There is no particular ethical feeling associated with gold. It is a game to them. If they're smarter than the company, it's theirs. I'm not saying this is only a Cornish trait, but it happened to be in our district. Our district was 100 percent Cornish up until the Second World War.

And, of course, our small district was constantly feeding on or going to the Northern Mines and the Grass Valley Mines for help, for miners. So many of the traits or problems we had up there--we've always been associated with the Grass Valley-Nevada

City mines. The Northstar and the Tightner Mines were outgrowths of a company down in Nevada City and Grass Valley.

One of the famous people I spoke of earlier on--this Duggleby, you know, had been sent up to Alleghany to head up the Tightner Mining Company. I have a wonderful record that I may have discussed with you about their attempt to stop highgrading at the Tightner. They had hired Burns, or Brinks--something like that--this operative. I have these notes of this poor operative telling how he thinks he's getting closer to the highgraders and how he follows them out in storms in the middle of winter and he loses their tracks in the snow. I read this today. Duggleby was one of the principals, along with Fred Searls. It was done for Fred Searls, of course, but Duggleby was involved and several other people that you know or we knew. It's comical, because the report was written in the thirties during Prohibition. This poor operative spends more time chasing people with a little still than he ever did on the track of a highgrader. He's forever winding up in some canyon someplace and smelling this strange wind that has blown in his way. He doesn't know what it smells like, so he never associates it with a still. It's comical, but it's extremely serious if you're on the other side of the table.

It's been a problem that goes back. Later on, maybe I'll discuss some of my highgrading stories with you--of my own problem, because it was very, very serious. In a small mining company, it can mean the difference between success and failure. I suppose the margin or the profit, or whatever you want to call it, sometimes can be in the 5 and 10 percent range to keep going. Ten percent going to somebody else makes it pretty tough. Everyone--it doesn't matter whether they're a Homestake or a Newmont--

I'll tell you a wonderful story on how I tried to borrow some of the security people, the Treasury people, that helped break a case at Newmont at Carlin. Again, an inside man, a metallurgist, got greedy and wanted a little too much. That's what broke it open. Usually, in these cases, you will find there always is an inside man someplace up in management--maybe not at the top but some place close to the top--that can look the other way at the wrong time.

Anyway, this fellow that we had that was supposed to be running the mine had very sticky fingers and was a man who, if he had devoted his talents and his ability and his brains to working honestly, would be an extremely wealthy man today. Right now, he's on his last legs, and he has nothing to show for his work. He's dying rather sadly. Anyway, I've left out the names because

of the living and the fact that it was a very difficult time for my mother.

Hiring Good Miners

Swent: How did you go about hiring miners?

Dickey: We've tried many different ways, and the way I finally wound up with was almost word-of-mouth. In other words, instead of going to a hiring hall, which we used to have to do, I would go to the top man, the man that I probably respected the most, and it was sort of an Oriental way of doing it. It's done in the Philippines. It's done in China. There they bring in cousins. It's almost like your cousin Jack: "You know, I've got a cousin Jack."

Well, I used this for years, and I was fortunate enough to be able to pick top people from the mines in Grass Valley and Nevada City. They were people that had either become disenchanted with the working conditions or they had been contract people. I liked to try to get contract people because immediately I knew that they were driven or, what should I say, they wanted a little something more than the day's wages. They were willing to put out. They were a little more ambitious. They wanted to put out, and they wanted to sort of be on their own. The finest foreman I ever had, Frank Knapp, came from the Empire. He had been a contract miner. I mentioned him before, I believe, and his roots in Canada and all.

Swent: I don't know that you mentioned that, but the name came here somewhere.

Dickey: Well, I may have mentioned him just as--but he was sort of my lead. He was my foreman and my lead man, and he was the first man that I really could trust. He taught me mining. In other words, here I'm supposed to be trying to help the company and bring the company back, and I am learning. But I had been learning for years anyway, and I combined what talents I had with his. He was the underground part, and of course I kept the surface, the mill, the machinery, and that going. We formed a team, and then he would draw on people that he knew, miners that he knew. When we needed a miner, he would inquire if this chap were still working, and if he were working on a contract, he would find out for me when the contract was over.

Quite often, Newmont would give a contract, and if the area was too good, they wouldn't like to renew it. Of course, this created a certain amount of bitterness with the men. So it was easier at that time, at the end of their contract, when they were trying to clean out their block of ground. They knew that they weren't going to get that ground back, and they knew that they were going to have to just roll the dice again, more or less. They were prone to take on a contract with me, and I'm using the word in two different ways. A contract miner can be both in the employ of the company, driving on a footage basis or on a tonnage basis, breaking ground, or he can actually be doing the mining completely on his own.

In the case of Newmont, they would block out a piece of ground, we'll say, between two levels, the nineteenth level and the twentieth level. They would give a lead miner this block of ground--a thousand tons, five thousand tons, ten thousand tons, whatever. The lead miner would then, more or less, enter into sort of a partnership with miners that he knew that wanted to work with him. There was one famous contract in the Empire. It was called the Jones contract. Glenn Jones was a good businessman, a good organizer, had good mining experience as a leader. I wound up with Glenn Jones, actually, in the end, as one of my men, and I would say half a dozen people that had worked on his contract came to me from Newmont. So we had a ready supply of <u>top</u> miners available.

Swent: Did you have to pay any more?

Dickey: We paid more, deliberately. We didn't have to. I've always felt that--again, going back to Mackay and his policies--I have always expected to hire top men. It's almost an understanding I have with myself. It's gotten me in trouble on some occasions. It's certainly gotten me in trouble with some of the government agencies such as MSHA [Mine Safety and Health Administration], because I say I refuse to hire a man low down on the scale that I have to make everything foolproof for, because nothing is foolproof. In other words, I don't care how many guards and how many fancy safety nets you put under a man, if he's going to hurt himself, he's going to hurt himself.

So I maintained as high a standard as I possibly could. I maintained small crews. Remember, I represent a company that did not <u>have</u> to grow. I was not responsible to stockholders that are saying, "Fella, you better make that bottom line look a little better." So I tried to scale my company both to the size of the veins in the district--the small veins--and also to the numbers of competent, good men available. I tried to pay those men more. In the old days, it could have been a dollar or two a shift more, but

still there was always a differential, that I paid a little bit higher. I used to say, "Well, they're coming this far out into the country." They were going thirty miles out in the boonies, you see, so that justified a little bit of money.

Providing Food, Housing, and Medical Care

Dickey: But that had nothing to do with it. Along with the pay, we tried to provide housing, and good housing. We provided food, and good food. When we first went in there, we ran a bunkhouse. We ran eight private dwellings for the lead men, and we had a cookhouse. Looking backwards now, I don't quite know how we got involved in this, but I'm sure it was because of the winter conditions and the fact that we were thirty miles from the main cities. We had to do it.

Swent: Did you run all year round?

Dickey: All year round, yes. We tried never to miss a shift. We had to work through some pretty stiff winters, you see, but again there was an incentive. The food--we tried to give them a little better food. I can remember eating at the cookhouse, and, my Lord, there would be two and three different kinds of meat. Potatoes would be done two or three different ways. We would have maybe four or five vegetables. We had buckets of milk on the table as well as coffee and tea. We had two or three desserts. I have never seen, one, men eat like they used to eat, and two, I have never seen a spread like that.

Swent: Was it hard to keep a cook?

Dickey: Yes. It was almost impossible to keep a cook.

Swent: I've heard a lot of people say that was the hardest thing of all.

Dickey: Without question, if I look back at my years in mining, I would say trying to run the camp was five times as difficult as trying to run the mine. Every day, there was some sort of a problem.

As I say, we had these eight cabins for families. Usually, they were foremen or shifters, walkers, or something or other, mill men. We provided all the furnishings of the cabin, and if the person wanted to bring something personal, that was fine. We provided the chairs and the tables and everything. Well, I can remember cases where a chair would break. We didn't have any set standard for what kind of a chair you put in the house, and I

would have to go down, or Mrs. Kraft would go down, to the nearest store in Grass Valley. We would go in and find a similar chair. We would buy this chair, cash on the barrel head, and we would bring it up, and we would hand it to this lady in this house. Well, two days later, the crew's going to quit or something like that, because everybody is in a hassle. "Mrs. Kraft, or Mr. Dickey, or Mrs. Dickey, or somebody gave this person a chair. This chair is better than my chair, and I have this damn chair that is falling down. They expect me to use this chair."

It was just a hassle, and the food was exactly the same. We used to hire--the only people we could get to work up there because of the conditions--we would hire these "bull of the woods" cooks. We would get them from--

Swent: What did you call them?

Dickey: "Bull of the woods." They were logging cooks that had worked for these logging companies that were way back in the hills. They didn't mind the winters and the rough going, but they were a very crude lot. The miners would try to take advantage of them, and we would have fist fights and people chasing the cook, and the cook grabbing a hatchet and chasing the miners. It was just chaos. You couldn't sit down at a meal without something going wrong.

Swent: These were male cooks?

Dickey: These were all male, and it was just a hassle. It didn't matter what we put on the table. It was a hassle.

My mother, bless her, had the idea--when we had lived in southern California, she had two ladies that she knew down there that ran a little restaurant. They were very good cooks, but they were--middle-aged, I guess, at the time--very opinionated, very strong, very upright. My mother thought, "You know, we've hired a dozen of these men, and we can't do any worse. Why don't we try to see if these ladies can hack it up here?"

So Mrs. Kraft went back to the Ojai and asked them if they would be willing to come up. She described the camp just the way it was. She didn't paint any pictures. They were maiden ladies, and they were, as I say, middle-aged. Well, they thought it would be a wonderful sort of a lark. The restaurant, I guess, wasn't doing all that well, and I think maybe one of them had other family that would take over. So they sort of came on a temporary basis to help.

Well, they moved up there, and we gave them a room. We built on to the bunkhouse and gave them two rooms, and washing

facilities and all, and I would say within a month they had that cookhouse completely organized. There was no fighting at the table. There was no swearing at the table. You didn't throw things at people, especially food. They had it organized, and as long as we ran the camp, which was the three years up until we were closed down by the government, things ran very, very well. And they were the only women other than Mrs. Kraft working for the company at the time.

Swent: Now this was early forties.

Dickey: This is late thirties and early forties.

We were so disenchanted that after the war, when transportation had become much easier, and when men were willing to live and take care of themselves--many of my men after the war lived in these same cabins that we had taken over from Gamble, you see, when we bought out the Kenton. They cooked for themselves, and they brought their own wives. We never again tried to run the cookhouse or the bunkhouse. We just said, "These are the wages. These are the benefits. These are the hours. Shift for yourself." That was the most wonderful day, when we made that policy, or were able to make that policy. We didn't get into it. The quality, yes, we tried very hard to maintain, but we were actually in competition with other out-of-the-way mines that had to do the same thing. There was no way we could have made the decision in the late thirties: "No, we're not going to feed and house."

Swent: What about booze? Was this another thing?

Dickey: Booze was a problem. It was not a problem in camp. Our foreman pretty much put out the word that it wouldn't be accepted--drinking in camp. We had no control as soon as they left camp. But we didn't have any booze for them. We didn't say, "You won't have a bottle in the camp," but we more or less tied everything to the working shift. In other words, "You show up sober on your shift. You have two or three chances to go out on the town, but on the third time, you're down the road. The first time you're back in camp." We had very strict rules, written rules and otherwise, that a man drunk in the morning or so hung over that you could tell that he was staggering or something--he never went underground. He didn't have a chance to go underground. It was just safety, and this was way before there were any safety laws. I mean, there was just no way that man was going to get in the mine. Now, I admit that some of them were able to hold their liquor better than others, and they may not have smelt very well, but still their coordination was all right. They snuck by, but

they got their warning the same as anybody else. So really the boozing went on on the weekends and was done pretty much uptown.

Swent: Not a problem on the job?

Dickey: And it wasn't a problem on the job. Of course, we were before the days of all the other wonderful things of today, the dope and the rest of it, so we weren't faced with that problem. The worst thing was that some of the men just couldn't stay off the sauce, and we would have to get rid of them. Drinking was not that much of a problem. They weren't that cut off. We had a couple of decent bars uptown, and if they wanted to go up and drink, that was fine. It was on them. But we made it a very strong point of saying, "It isn't part of your job. Don't bring it to the job."

Swent: Of course, you're really only what--half a mile from Alleghany?

Dickey: Yes, it was very short. You can walk. I mean, when we were out at the Dreadnaught, even though the roads were closed in the winter, the men could walk in. It was about two miles or something like that. They would walk to town on snowshoes.

Swent: So that helps.

Dickey: That helped a lot, but we tried very hard to keep it out of camp. I think if you let it once in, you've got problems. I've seen similar problems the world over. I mean, in South America, it's coca. Do you want to make a decision to have it in the company store or are you going to leave it outside the fence? In the Philippines, it's the same--everywhere I've ever been. I think you just have to make a rule and stand by it.

Swent: You didn't have to get into the company store business.

Dickey: No. We did after the war, when I went back, and I was more or less starting to run things. I tried to help the crews. Food was a little scarce, as you know, and many things you couldn't readily get in our little town store. So I would go down maybe once every two weeks or something to Sacramento, and I would go into wholesale houses. I would buy cases of things. I would find out from the men what they liked. Did they like a certain kind of canned bean? The staples, more or less. I didn't try to do anything on the fresh side, but I did try to buy coffee and staples and flour and sugar and all of that at a discount--as good a discount as I could get. I would haul it back up there in a pickup, and then I would put it in a lockup. Then I would say, "This is the price. This is what I paid for it." So it wasn't a company store. The store didn't support itself. I just did it on

my own. I also--I probably shouldn't say it, but I did--during the wintertime, I hunted for the men.

Just after the war, we didn't have four-wheel drives. We deliberately stayed away from buying GI equipment if we could help it. In a couple of cases, we had to buy war surplus stuff, but it was such a hassle to get parts that if I could get a civilian piece of something, a machine, I tried to do it.

Anyway, going back to the food part of it, it was a help to them, but it was not intended to start a store. The hunting business came from the fact that we did get ourselves snowed in on numerous occasions. Nobody came to get us. We didn't have a tractor big enough to dig our own roads out, and we would run out of meat. So when we ran out, everybody and his kid brother would go out and start potting away at the "sidehill salmon" that we had in our district. I thought, "Well, I don't want that."

Swent: This is deer?

Dickey: This is deer, and so I thought that if somebody was going to break the law, I had better break the law. So I and this Frank Knapp--the two of us would hike up--oh, it's about a thousand feet up--to the side of this ridge. It's the south side, and so it was always covered with snow. We would drag ourselves up there through the snow, and then we would shoot one or two deer, and then field dress them, and bring them back down, and provide meat for the men until the roads were open.

Well, I know that's totally against the law. It was then. It is now. But I felt that at least then I could take young bucks; I knew exactly what I was shooting. I didn't wound anything, and I wasn't shooting at does and fawns and the rest of it, so--I did that for a while. I suppose I could apologize for it, but at the time it seemed a necessity. It really was. We either went without or we lived a bit off the land. We did live off the land, only during the serious winter.

Swent: What about medical care?

Dickey: Medical care we didn't have at our mine. But we did have, up until the war, again in the first three years of our tenure, a nice little hospital uptown that was funded by the Tightner-Sixteen-to-One group. They had two doctors there and a nurse, and they had medical supplies. They could do minor operations and were quite good at it.

I think, earlier on in our talk, I spoke of the team of Gamble and Wilson. Well, Wilson stuck a pick in his foot as I

believe I mentioned, and, of course, he had his leg taken off on the table there at the Kenton.

We had access to medical help, but by today's standards, of course, it was minimal. Mrs. Foster--when she was still there before the war--she had had Red Cross training. As you remember, my mother was a nurse in the First World War. She had Red Cross training. Foster, I think, originally had had some. I took several courses, but it was just minimal, is what we could do. In an accident underground, all we could do was try to patch the chap up long enough to get help.

Swent: Which was where?

Dickey: Which was Alleghany or Grass Valley. In other words, we would have to go clean to Grass Valley.

There are wonderful stories of a doctor in Grass Valley, a Dr. Jones, who took it upon himself to be the miners' doctor. He had an open car, an old, old, thirties model something touring car. It had wooden wheels on it and wooden spokes. He would carry a lot of one-inch rope in the back of this car, and he would get a call from Alleghany--this is before we had the little hospital--or when he was needed to do more than just the simplest thing. He would go into one of the local bars or any place to get men, and he would try to get miners or loggers--both of us sort of depended on each other. He would get six or eight men, as many men as he could put in that car, and away he would start, at three o'clock at night. He would get up to the snow line, and he would dump all these men off and say, "All right, wrap the wheels." They would wrap the rear wheels with ropes, and he would say, "All right. We're going through." They would literally push that car up to Alleghany. They would push it through two and three feet of snow, fight their way through, and help the person that had been injured. It was a real story of heroism, and yet he never, never thought about it. Those were his boys, as he called them. "Those are my boys. I'm going to go up there and help them."

Now, of course, we pick up a telephone and ring up the hospital or ring up the highway patrol. They have a chopper that's assigned to the Grass Valley area that's available to the public in an emergency. The hospital has a service with the logging company, Robinson Timber, that has a good chopper. We just bring them in, and it's easier to get a man to the hospital now than it was to get him to Alleghany twenty years ago, thirty years ago. Of course, the chopper comes with a nurse and with an orderly or somebody that knows something about first aid.

IV THE ORIENTAL MINE: THE SECOND CENTURY

[Interview 3: February 21, 1991] ##

Swent: Today we are continuing in Nevada City on February 21, 1991. We had gotten up to 1950 before, so we still have a good deal of territory to cover. Mining had a little spike of activity in the early 1950s, the time of the Korean War, didn't it? There was a little pickup there?

Dickey: Let's take a look at the chart. I would sooner go by the numbers. What they show. It wasn't too much of a spike, you see, after the war.

Swent: No, it really wasn't.

Dickey: Many companies tried to go back, both in our district and also further down in the Mother Lode, but costs at this time of course were way out of proportion to our hoped-for gold returns; the price of gold was still pegged. We really weren't able to see too far down the line. It wasn't until the sixties that the spike really came, when the gold window was closed. I won't get into that mainly because of the dates I'm not all that sure of. But I do remember that at this time (late fifties and early sixties), the government became a little more interested in gold.

Support from the Office of Mineral Exploration

Dickey: As an outgrowth of the Defense Minerals Act, DMEA, whatever, a new group was formed, the OME, the Office of Mineral Exploration. Funds were made available at that time. I think this may have played a part in adding to the incentive of companies going back.

Swent: That would be probably more for strategic minerals.

Dickey: Well, originally it was. The Defense Minerals Act of course was one looking for just that, defense minerals during the war, but after the war was over, gold was added to the list. The government became active in supporting to various degrees small companies as well as large companies in exploration. We did take advantage of that at one stage of the game.

Swent: What kind of support did they give you?

Dickey: It, as I remember correctly, was a little better than fifty-fifty. It was a negotiated figure. It was a per-foot cost, we'll say, or per cubic foot, per lineal foot. It was based on an agreed-to price of doing work. This agreed-to price obviously came about before the work actually started. So when you signed one of these contracts you tied yourself into a fixed fee, more or less. I noticed that as the months went by and as the year went by, the costs that I had guessed before it started weren't quite the same. When I am a little vague about whether the government picked up 50 percent, that's the reason, not that it wasn't supposed to be fifty-fifty.

Along with the financial help, I was given a great deal of help by various agencies. In other words I would feel much freer going to the Bureau of Mines or something like that and asking for help if it came to metallurgical problems or structural problems that I may have run into. I could talk to other engineers that would be made available to me through the various government agencies.

I enjoyed the work quite a bit. It was very frustrating; I had never had dealings with the federal government before on that sort of a level.

Swent: Where were they?

Dickey: Well, of course, it was out of Washington, but the main office was in San Francisco. A gentleman as I remember, Paul Fillo, was their representative in San Francisco. He was the gentleman that I started dealing with when I made the application. I remember one humorous thing about it was that we locked horns about two-thirds of the way through the initial phase because I decided a mine wedge was worth five cents and the government decided a mine wedge was worth three cents. Stupidly on my part, I didn't go along with it, and it took several letters back to Washington as I remember to straighten out what the price of a mine wedge was. I wound up by giving up anyway, which I should have done in the first place and tried to add two cents on something else that I might have been able to make stick.

My feelings looking back were that it was a worthwhile program and I say with a certain amount of pride that I think my little company was the only one that ever paid their loan back to the government out of production. I was told that when my final payment went in. Mr. Fillo was no longer with the Bureau then; I think a Mr. Hal Stager was involved at the end. I had to account for every penny of gold that had come out. We wandered around the mill looking for stray amalgam and all these things but we were able to completely pay off this loan. I was quite proud about that.

Swent: This was the Bureau of--?

Dickey: I don't remember. It must have been under the Bureau of Mines, I would say. I may have changed that. Fillo was Bureau of Mines and yet Hal Stager later on was with U.S.G.S. [United States Geological Survey] out of Menlo Park. Whether they joined hands on this, I can't tell you how the parent source of the funds was.

Swent: But the idea was to stimulate production?

Dickey: It was an incentive. It was to stimulate exploration up to possibly the development phase. Of course you had to make a pretty fair case for what you were looking for and the chances of you paying the government back. It wasn't just a rolling of the dice. You actually had to work out a pretty good program, have a pretty good target, and have reasoning behind every step of the way.

Swent: Were you working in the same kind of ore that you had been doing before or did this enable you to get into something different?

Dickey: This enabled us to go much deeper and much further than we had been able to go on our own. It gave us enough of a boost to continue sinking a shaft that already was just about at its limit, limit of equipment, limit of manpower, limit of our ability. This program entailed sinking another 300 feet on the shaft that had already been put in.

So it did open new ore for us. It did just what it was supposed to do; it was able to get us going again. In our case we might have closed down before that; if this had not come through we probably would have been forced to close. We were trading dollars and probably going a little bit behind at that stage of time. Gold had not taken any kind of a jump yet and we were caught like everybody else. This just kind of kept the door open.

Swent: Gold was at $35 an ounce up until 1971, wasn't it?

Dickey: 1971 or 1972, some place early in there.

Swent: So you were in an increasing bind.

Dickey: We were really in a bad bind. Most of the mines that did close, that hadn't been caught by Public Law 208 [War Production Board order L-208 which closed gold mines during World War II] were caught in this period. We were just lucky that we hung on, I suppose, during this period. Once the gold window was closed, then of course gold took off and I don't remember where it settled, but at least thirteen times the $35. Thirteen times at that time was maybe one or two times more than our cost. So the incentive then, of course, was to merrily go on our way and keep mining.

Swent: We have not yet actually said the kind of spectacular gold that you find in your mine. You mentioned that you were mining in granite.

Dickey: This granite business is much, much later.

Swent: Was that later? So at this time you were mining in quartz?

Dickey: Even before the war, when we took the mine on in 1938 and 1939, our engineer, Foster, was not interested in highgrade pocket-type material. He saw a possibility of the granite being a large, low-grade body and I believe I discussed our playing games with Mr. Metzgar of the Alaska Juneau and trying to get the Oriental away from them. They wound up with the Harvard; we wound up with the Oriental. I think they did much better.

No, the highgrade vein material that I sought all my life is typical of the very end of the Mother Lode, what we call the Northern Mines. We have never admitted that we were part of the Mother Lode, and it's only the recent geologists that have kind of forced us to think that way. We think we're something special. We probably aren't, unfortunately, but we do have extremely rich pocket rock and next to no mill rock. Seventy-five to 85 percent of the production of the Oriental has actually come out in highgrade sacks and never, never was put into the mill. If it got into the main mill, it was by accident, not by intent.

Swent: It is the sort of thing that amateurs think is in gold mines. You just shine a flashlight and there is all this gold just gleaming at you.

Dickey: Yes, I'm sure. And I'm sure the public--. And the interesting thing is that this does happen, and we use the term, "There was a jewelry store window." You come in in the morning, and believe

me, I've done it enough times to know just what a tremendous boost it gives you. You spray water over the muck pile and it does look like a jewelry store. That incentive has to keep you going for an awful lot of days when it is just barren grey muck.

Swent: But it does keep you going, doesn't it?

Dickey: It keeps you going. Not only do I look at the ounces of gold of course, which pays the freight, but also I look at the aesthetics and the--what should I say--specimen value. I have done this for many, many years.

Specimen Gold

Swent: I was going to say that $35 an ounce does not apply to the specimens.

Dickey: No, it does not. Also I have had sort of a running battle--not a running battle, but a running discussion--and confrontations with geologists because thirty years ago, when I started looking for specimen gold and saving it and keeping it from going into the pot, I always felt that this particular gold was secondary. At the time this was not an accepted truism.

Gold does not have any elixivant in nature. It can not be put into solution, hence you cannot have secondary gold. That, I did not believe was true. Today I think I have been vindicated. Most of the people that I deal with and talk to now about this subject say, "No, you were right," because what we say is we expect something to happen in a finite time. We like to see something in a laboratory go on in twenty-four hours or one week or one month. Mother nature can do things in thousands of years and create the same thing. Nature has all kinds of ways of putting chlorides and any number of chemicals that will put gold into solution.

Probably the most common is cyanide. Cyanide is all through nature. Many, many trees, many bushes, many shrubs produce cyanide. If you have gold near those trees and there is a very, very weak solution present, gold eventually will go into solution. Once in solution, it can be precipitated back out.

I've gotten a little off the track but one of my main interests, and an interest that has grown stronger as the days go by, the years go by, is the search for these really good specimens. I now feel that the finest specimen that I've seen the

world over--I've been in most of the museums of the world and universities--all of them for a strange reason come within 100 or 150 feet of the surface, which tells you a great deal, of course. But it wasn't until I started sort of researching and wondering where did the famous Red Ledge nuggets come from? How deep were they? Well, they were ground sluiced right on the surface. The further I looked, the more I realized there was something that was creating these beautiful specimens on the surface.

You asked about price or value. Value is strictly in the eyes of the beholder. The aesthetics of a piece of gold is what really sets the value. Yes, you can have the biggest leaf or the biggest piece of wire or the biggest something or other, but I can tell you that $10,000 an ounce is not out of sight for specimen gold. One, two, and three times gold's value is very common. This is common even in the cutting material. You know the slabs sold for making cabochons and such things as that.

This part I'm not all that familiar with. I am familiar with and interested in the major specimens that we now see in the museums. They can be anything from fist size on up to maybe two or three or four times that. These are the ones that I find both aesthetically and certainly monetarily very, very interesting.

Swent: You might just mention your interest in the Ruby Mine nuggets, although we're not talking about nuggets here; we're talking about something else.

Dickey: This is an outgrowth of this. Many years ago, in an attempt to protect specimens that I had--and when I say protect, I mean that. Physically protect as well as insure. And also to allow the public access to something. I'm not very strong at putting things under your bed. I think that's sort of a poor place for them, seeing as I have always believed that the fun and the challenge, of course, is in the search. It's not in stacking these things in a box some place.

Thanks to a gentleman you know quite well, Mr. Frank McQuiston, many, many years ago, at the time of the major highgrading problem at the--what was the Newmont mine?

Swent: The Carlin.

Dickey: The Carlin Mine. You see, this is exactly the same time that the gold window was open. Frank and some of his people of course had put a crew together of very smart, young, federal types. These federal types went to work at Carlin and broke the problem. Lo and behold, within a matter of a month or two of the solving of this problem--

Dickey: Let me try to straighten it out. Let me state that at that time I realized that I had a highgrading problem.

Swent: Frank McQuiston had a problem at Carlin in the mill.

Dickey: And Frank McQuiston had it in the mill. Again, an inside job.

Swent: FBI, Treasury?

Dickey: Treasury. FBI-trained people. He had this young team of people that were just very, very good, and when they finally caught the miscreants--. They caught one at the airport with a suitcase full of precipitates and I can't remember how they got the others. It turned out of course that it was an inside job. Their own people were involved and no one outside.

Frank knew that I had a problem, and Frank had always been generous with his time and his skill, intelligence and all. I knew him, as I think I mentioned, clean back here in the days of Grass Valley when I tried to get Newmont to handle some of our concentrates. But anyway, Frank said, "I have two ideas. One is that I'm going to see if I can't get this team of men to help you. And two, I want to introduce you to the head of the L.A. County Museum, Giles Mead, and I think that you two could help each other."

So Frank actually got into his car and got hold of Mead. Mead was a neighbor of his when Frank lived at Silverado. The two of them and the young curator came up and we discussed both my highgrading problems and we also discussed what would I do with specimen gold. At that time I realized that museums might be a very good place for some of my collection. As I said, the reasoning was strictly so the public would have access to it and so that I would be protected, because the museum is protected under a very sizeable insurance blanket. It's all-risk insurance. Appraisals are done by only the top people in the country so that there is no monkey business in values and all.

So this started a relationship that has gone on to this day and I hope will go on for a long, long time. But going back to the highgrading thing, these men Frank asked to help me--. And lo and behold, I believe it was Mr. Nixon who said, "We will now close the gold window." With the closing of the gold window, that took the Treasury people out of the gold business. It was no longer a Federal offense to steal gold.

This came as an awful shock to me because I always felt that I had a certain protection of big brother looking over my shoulder. Well, that wasn't true after that date. Before then,

you could only sell gold to the government or through an agency of the government. Of course, the price was pegged as we mentioned, and it was a nuisance. Even the melting of gold was a hassle. You had to have a permit and the government would show up at all hours of the day or night and say, "Let me see the inventory."

We gave up actually our melting permit at the very end, only because we were tired of being--not hassled, but asked to cooperate at odd hours and I didn't figure it was worth it.

Shipping Bars and Concentrate

Swent: What had you done with your product before that?

Dickey: We had sent it to ASARCO originally.

Swent: Was it just the concentrate?

Dickey: We sent both the concentrate, which went to the smelter, but they were a gold bar, silver bar recipient, too. So we shipped dore bars for a while.

Swent: You were actually doing that.

Dickey: Yes, we had a permit to do it. It wasn't until the end that I got mad and decided that it wasn't worth the extra paper work and all, so I went back to shipping sponge. That was a large mistake on my part and I should have known better, but I didn't. The sponge is far more difficult to evaluate or to assay than any bar. A bar is quite easy, actually, or a melt is quite easy. A sponge is difficult. A smelter does not make the rules to hurt themselves. In other words every loss of weight will be in their favor. So you never are quite sure whether it is deliberate or not, or how much gold was there. That's why I made a mistake.

That, all this business of dealing with the government, closed at the time of the closure of the window. As you remember, the Treasury continued to buy silver for a while. Remember, you could turn in your silver certificates and they would give you silver. Well, they would still deal in gold and they would do refining, but private industry took over that pretty much. The Engelharts and Johnson-Matthey and Homestake, incidentally. Homestake, I believe, was the first company that treated our gold after this period. Frank Howell--.

Swent: You actually shipped it all the way up there?

Dickey: Frank Howell, I think, was instrumental in having me ship it back to Lead. And it would come back again from Lead. They handled it for a while and then they decided they had enough of their own and enough problems of their own with it, so I went in to other smelters from there, other refineries from there.

Swent: Do I remember that you said at one point that you were actually shipping to Canada?

Dickey: Yes, yes. That was a roundabout thing. I was actually going to Johnson-Matthey. But Johnson-Matthey had no plant in the United States, so I would have to ship to Los Angeles. From Los Angeles they would put it on a plane and send it to Brampton. From Brampton, either the check or the bullion would remain in depository there in Canada. Many years later, with the advent of the Carlin rush and the Nevada rush, they felt that it was more worthwhile to build a plant here, and they built a beautiful new plant in Salt Lake City. That's where I go now.

Swent: I didn't hear exactly what you said. You would ship either the check or bullion?

Dickey: Yes. A check. They would return a check, or bullion, or--. And the bullion would come in any form, you know. It would come in BB shot, or--. They would take the dore. They would refine it and I would pay cash or a check. I would pay cash to refine. Then at my option, I could take the bullion back--being 49 fine--in any form. At one stage of the game, I used to take back Johnson-Matthey slugs--one-ounce slugs, or half-ounce. They had a wonderful free form, sort of a dollop of gold that was exactly one ounce, 49-fine. I would take some of them back and use them to pay engineers or sort of keepsakes. Like the little Homestake bar that you're probably familiar with, the little one-ounce bar. Well, Johnson-Matthey, they must have started with just a thimble full of gold and just hit it with a, what should I say, a die. But it came out in sort of free form so that there were no two that were alike. The logo was on the front, but it had all different shapes and sizes in a very interesting sort of--.

Swent: Like a sealing wax seal, I suppose.

Dickey: Like sealing wax, almost; right. I found that quite fun. They no longer do it, unfortunately. I asked them three years ago if they would make one for me and they said, "No. We wouldn't make one. We would consider making a few thousand if we had the order." I said, "No. I'm afraid that couldn't be done."

Swent: How are these things shipped back and forth?

Dickey: Just U.S. mail.

Swent: U.S. mail.

Dickey: U.S. mail. I have unlimited stories to tell about that and probably I shouldn't take up the time. But I will tell one.

Swent: These are the kinds of things that you don't read in the papers.

Dickey: We were discussing Homestake, the fact that we had a shipment go back there, and I hadn't done my homework and I hadn't gone down to the post office and planned in advance that the shipment was to be made. I deliberately did that. I never schedule anything for the last day of the month or the first day of the next month, and so I just showed up with a guard at the post office and I said, "I have ten little boxes of dore bullion that I want to go to Lead, South Dakota." Well, everybody's face fell and the poor postmaster in Nevada City here was just beside himself. I said, "What's the problem?"

He said, "Well, all of our safes have a maximum allowable dollar limit on what we can put in them."

I said, "Well, what is it?"

He said, "It's $40,000." That was maximum.

I said, "Surely you've shipped things far more than that. A bullion bar today is worth more than that. You have ten of them, so what are you going to do?" Well, it was just a comedy.

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Dickey: It was practically a comedy because of the rules of the post office. It had to go under armed guard. It could not spend the night. You could have it in the post office, but it couldn't spend the night. So the sheriff's office was contacted; they had to provide a guard, and it went to Marysville. Marysville was the nearest major post office that could then transship it, get it to the airport, again under guard, and load it on the plane for Lead, South Dakota. I'm not sure where it went in Lead. I assume Rapid City or something.

But anyway, it was picked up by the normal methods used at Homestake. I was roundly cussed by both the post office and the sheriff's department because it was an imposition on them. I took the position that that was what they were paid for. I paid very handsomely to send that stuff. I didn't see why they couldn't provide a prowl car. They felt otherwise and they said, "Well, please notify us, Mr. Dickey, when you're going to do this."

And I said, "No, I'm not about to notify you and there is nothing in your regulations that says I have to notify you. So you will see me again and again, and I hope things will go more smoothly."

Well, to end the story, Frank Howell called me from Lead and said, "The material is ready. How do you want it shipped?"

I said, "Same way. Put it back in a box." Homestake had nice little cardboard boxes that just fitted a hundred-ounce bar. They had a little piece of canvass around it; then that went into a special mail sack. The mail sack has what they call a rotary lock. I don't know whether only gold is handled using the rotary lock. I assume all great valuables would have that same sort of a lock. But every time the lock is open, a report has to be made back to the shipper and to the post office. "Somebody has opened that lock, somebody that has a key."

Well, there are very few keys along the road between Lead and Alleghany. So anyway, it came back in a grey bag with a rotary lock on it. The post office in Nevada City loaded it into what we call the stage, which was a kind of a panel wagon that brings us our mail. A young lady, a young girl, who was driving this stage, Miss Bedwell, she came up to Alleghany and somehow, her timing was off. Whether she had taken a little too long to get there or the lady who ran the post office was out of sorts and she wanted to go home, when the stage arrived, there was nobody at the post office.

The girl didn't know what to do with it. She didn't want to haul it back. She was told not to haul it back. So the sack was pulled out and thrown down on the street, on the main street of Alleghany. It sat there and the only attention it got was from the local dogs that went by. Of course, I had been notified by telephone that it was to arrive, and it didn't arrive and it didn't arrive. I called Lead. It had been shipped. They followed it across the country. They followed it to Nevada City. They followed it to the state. Where is it? They called me, the local sheriff called me and said, "Run uptown. I'm coming up as fast as I can get there." And here it is lying out on the street. So much for the great plans of the postal service. [Laughter]

That story is one I don't tell with any animosity but I tell because things do go wrong in the best-laid plans.

Swent: You did get it back.

Dickey: And I got it back. It represented a thousand ounces of gold. Ten bars. So it did have some value. It was insured of course, and I would have gotten something back, but I've often heard through various friends at Homestake that in their 100-plus-year history, one bar has been lost. Only one bar.

Swent: That's what they claim.

Dickey: I've heard that for years and years and years. I think Don McLaughlin told me that thirty years ago. So anyway, nothing has been lost in my case. But it was kind of a comedy of errors at the time.

Swent: Of course, a gold bar isn't an easy thing to walk off with.

Dickey: It's not easy to walk off with it. It's amusing. At $35, I suppose you could walk away with quite a bit. But now, at today's price--. There is no way a person was going to pick up at that time a million dollars. The movies and stories are all, "Well, she put it in her underwear, or they put it in their pocket and walked off down the street." Well, that's just nonsense. It's impossible.

I've carried 400 and 500 ounces in my briefcase, delivering it by hand myself. It was all I could do to handle the briefcase because when I would do a smart right turn or something, the briefcase tended to keep going straight down the street. The heft of gold is something else. You don't pack it around like that.

Convicting a Highgrader by Using Microprobe Evidence

Swent: How did Frank McQuiston help you then with your highgrading problem?

Dickey: Getting back to that, Frank tried to turn these men, turn them over to me, and it didn't work. He thought, "Well, could we do it on a state level." So he went to the equivalent of the Treasury people, but at the state level.

Again I was told, "Well, we can't help you because this was a federal problem. Now you are faced with a crime of theft, but

you don't know what was stolen. So is there a crime? We don't know what we can do for you."

But the wonderful Irishman, and I'm going to have to fill his name in later, but he was the head of the state secret service, he was just in retirement. Who would have been governor? I guess Reagan at the time. He was just the finest man. He said, "Well, I can't help you. I am too old to help you. But I'll tell you what. I will let my license be used. You find a private investigator and I will coach him from the sidelines."

So he found an investigator here and I used him. I sort of followed, not the plans, but the methods that were used in Nevada, with my own problems. We had a very good district attorney at the time and I used him to coach me on what constitutes a crime, how do you separate this hearsay evidence from true evidence. Between the private investigator, the DA, and a little bit of luck, and a lot of work--again, help from U.S.G.S. actually in identifying gold--I was able to do a trace element study on some material I found in a campfire many, many miles away from the Oriental.

This is long-winded and I probably shouldn't get into it, but it was very, very important at that time because I felt that highgrading has always been sort of, it's gone with the territory, so to speak. Unfortunately, I think I said once before, this camp and Newmont at the time when they were just getting going in this camp--I say this camp, Nevada City, Grass Valley--was just fraught with it. It extended to all levels of management right on down to the bottom and up to the top. A Cornish camp has always been very accepting of it. I am a Scot, I'm not a Cornishman. At the time, I took a great deal of umbrage that the very fact that the Lord put the gold there, it didn't belong to anybody but me. When somebody tried to convince me otherwise, I probably went a little further than I should in trying to change things around.

This is how I became involved in trying to put away one of my own men. It took me nine months of near-continuous work. In court, it came out that the man might have gotten away with about $50,000, which is a lot of money. When everything was all said and done, I think he got four months hard time (he was sentenced to six). $50,000 for four months in the slammer isn't too bad wages. Here I was out nine months of work trying to bring this joker in.

Swent: You got no compensation?

Dickey: No. Because the gold was highgrade, you see, and it had not been put in inventory. It was stolen from the mine. So the federal government, in their tax methods and in their tax books said,

"Unless an item is in inventory and so declared, if it is lost, it may not be taken as a loss." Even though the court had said, "There is x number of dollars that have been purloined in this case", I could not use it, so I didn't get a dime back. I really don't know in ounces today how much was taken. But I had the satisfaction of seeing the bars close on this chap.

It was the first case of a mining company putting a man away for stealing highgrade. That's a strong statement, but I think you will find that I can back it up. Bars have been stolen, precipitates have been stolen, amalgam has been stolen, but when a man has been charged with stealing of ore, he could never be convicted because you could not identify the ore. How could I say, "That is mine?" I don't have my name on it. There is no logo on it. It isn't described, obviously, because it hasn't been put into inventory, again going back to the government's statement.

So halfway through this problem of mine, and again with help from Frank and guidance from many friends, I was faced with the problem of how do you identify a rock. I didn't have a clue. I had some ideas.

Swent: What made you even suspect that it was missing? Was there a dip in production?

Dickey: No, no. Actually it was hearsay. It got back to some loyal employees. Then another highgrader, a man of rather poor moral and ethical standards, got mad at this particular bird and decided he would turn him in. He called me and became part of my team; yet he was probably the squirreliest fellow I've ever had, and my lady lawyer said, "Well, if this man doesn't blow this whole thing out of the water in court, it's going to be a large surprise."

Let me go back a little bit and state how. I've said that hearsay told me that I had a problem. As I started checking out the hearsay and pinning people down, saying, "Did you hear this? Did you hear this?" I came up with the story of a government campground ten, twelve miles away from the mine, where one of my men, after having been fired, had a camp. He was running a scuba dredge thing down in the Middle Yuba River. His wife was tending the campfire. What I wasn't told initially was that the lady, the wife, who was not the wife at the time, a girlfriend, had a job of melting or fuming or heating something in little glass bottles in the fire. One day this chap came back from the river and the gal had forgotten to tend the fire, and a quart jar had tipped over. The quart jar actually contained highgrade. Highgrade, arsenic. Gold and arsenic, arsenical sulfides.

Swent: Can you heat it actually hot enough on a campfire?

Dickey: No, in nitric acid. When you heat any acid gold, nitric won't attack the gold but it certainly attacks the arsenic, and very dangerously attacks it. You wind up with something like, I don't know, mustard gas, a horrible, horrible chemical composition.

Anyway, he was a pretty strange duck and he lost his temper. He kicked into the fire and kicked the fire all over the campground. He got a rifle and swung the rifle around on the girlfriend and said, "I'm going to kill you." Luckily, other people in the camp came out at the time and he backed off as far as shooting the woman.

Well, this story came through to me. He was trapped. The police came and for brandishing a weapon, he was chased out of the camp. But the story remained and the gold of course, I assumed, in the jar was someplace in that camp. So I hired an old-time prospector here in town and I said, "Now, will you go with this private investigator? I want you to make a grid. He'll show you where the fire was. You make a grid and I want you to pan every bit of soil down to six inches below the campfire and come back and tell me what you have found." Of course, I had tipped off--showed any number of pieces of arsenic, arsenopyrite, that had been worked up in nitric acid. So the investigator knew what he was looking for. Of course, this old-time miner knew either he was going to find gold or something with gold in it. They came back with three thumbnail pieces.

Those pieces, plus pieces that I took out of my vault that I was positive came from the same pocket, same area, the same exact place in the mine--. I then had a problem: how do you identify it? I didn't have a clue. It was suggested that I go to U.S.G.S., so I went there and got hold of the gold expert. Well, the gold expert turned out to be a character by the name of Art Radke, who is a friend of mine now no longer with U.S.G.S. but now working in the Nevada or someplace in the world. He said, "I've got a couple of ideas but I don't know whether they'll fly, but let's try them. I have a friend up at the University at Davis, Ray Wittkopp." Ray is an expert on an overgrown espresso machine that they call a microprobe. It looks to me like an espresso machine, a huge thing with tubes and bells and whistles and all, but very exotic, very modern and a technique that can identify trace elements. Of course, this was years and years before the term "trace elements" really was bandied about as it is today. Now everybody is looking for trace elements. It's a way of forming a model for a type of gold deposit or ore deposit.

Anyway, I went to Davis and I said, "What do you think can be done?"

He said, "Well, I don't know. But I can take the two pieces, the found and yours, and see if there is a similarity." I should say that this is being done at all times under the guidance of authorities. In other words, it wasn't done just by me going in and beating my fist on the desk. The county lawyer that I had been using had quit and we didn't have a district attorney. Without a district attorney, you're helpless. You can't do anything.

So I got on the telephone and I said, "What is a poor citizen supposed to do with no district attorney?" Well, it seems in California the Attorney General's office is bound to provide a lawyer and has to take your case. So I said, "Do you have a lawyer?"

They said, "We'll find out. There will be somebody to help you, Mr. Dickey." The phone went dead and two days later I got a call from Sacramento from a lovely lady. The lady said, "Guess what, I am your lawyer."

I have to admit that when I first heard her voice, I said, "Do you have mining experience? Have you ever tried a case at mining or highgrading?"

"No, no. I am an ex-general in--." Either the Army Air Force or the Army. Army, I guess. She was the highest-ranked woman out of the Army. This was after Korea and all. She had gone back to school, got herself a degree and was now assistant attorney general.

I thought, "That's a good background. At least you must be tough." She came up here. She was the nicest gal that a man ever could have been given. She showed up in jodhpurs or blue jeans and tennies and an old lumberman's shirt and she said, "Dickey, we're going to work as hard as we can. We're going to start right in the mine."

I said, "The mine's kind of a dirty place where I'm going to have to take you."

"Fine. Let's go."

She guided my hand from the legal standpoint right on through to the trial, right on through it. It was under her guidance--.

Swent: Do you remember her name?

Dickey: Marge Parker. She went on to become the lead attorney in putting doctors and dentists and chiropractors and pill-pushers in jail for falsifying medical records. She had a staff of 100 or more investigators under her and she did a pretty fair job about cleaning up our problems in the medical profession. I have lost track of her, unfortunately. I know her husband was quite ill at the latter part of my dealings with her. Possibly she had to take care of him, but she was a neat gal.

She guided me. So when I said, "I will take a rock out of my safe and take it to Davis--"

"Oh no you won't, buster. You just hold tight," and somebody would pick up the rock and they would be put in an envelope or in a box and it would be sealed and it would be delivered under somebody else's hand. All of this was done by her and it was done correctly, so that when we finally did get into court, there was absolutely no problem with the chain of evidence. The chain never broke, or never was bent.

Getting back--I've gotten kind of off the track here, way off the track. How do you identify the rock? The trace element was the secret to it. We went down to Davis and they looked for every element that the rock had, primarily the elements other than gold. In other words, we did look for silver, but fineness, of course, is used in any sort of comparison. Fineness is so easy to change because you throw a penny or a dime or a nickel in the melting pot and there is no way of telling what it was. So historically fineness hasn't meant very much, even though this was ore, and ore normally that close together would have a set fineness. We didn't use that but we used trace nickel and we used arsenic and we used tin and we used lead and we used all these things, and we compared the known and the unknown.

When the work was completed and it was put on a large piece of graph paper and held up, the points on the chart looked like they had been totally fudged, they just fell on top of each other so closely. Mrs. Parker looked at that and she said, "The one thing that scared me in this case was the fact that I'm going to be dealing with your mining community. I'm well aware of the fact that a jury does not convict normally in a mining community. It's almost impossible to get a conviction. But if the people are honest, and I assume they are honest, it's going to be pretty tough for them to get around this documentation here."

After nine months or something, we did have a trial. The man's girlfriend married him so she didn't have to testify. We

had more problems in dragging the whole thing into court, but when we got it into court, it lasted for a little over a day and it wound up at one o'clock one morning. The gentleman was found guilty on all counts.

Swent: This was a local jury?

Dickey: This was a local jury. In Downieville. I don't know if it would have worked in Grass Valley. I have to think it would. I do believe in our system, but when you've only got miners on one side, it's pretty tough. It's one of the few places that maybe the jury system doesn't work, but it's all I had to go by, because I had gone to the grand jury. I couldn't get an indictment. There was no way that I could accuse. I'm not allowed to accuse, so I had to find somebody to make the accusation. No crime had been committed yet because I hadn't been able to explain that kind of crime. So the grand jury was the only thing.

We went through two trials. We went through a trial with a grand jury. This evidence was put into the motion at the time. All specimens and everything was to be put on the table then when the grand jury said, "Yes, we'll indict." So they made the indictment, and then we went back into the Superior Court. After the trial and after the case had been found in my favor, then of course the Appellate Court had to get hold of it.

So nothing happened. The man just went free on a modest bond. We had very unpleasant times. My wife was threatened and I was constantly receiving phone calls. "If you don't drop the case, you're going to be in trouble" and all that. I just said, "You know where I am."

The main threat was a threat of burning, burning us out. Of course, this has always been one of my--. I'm terrified. Living in the woods and living in the hills like this, miles from nowhere, a fire means a lot. But I just refused to give up. I just felt that somebody had to do it. Again, people like Frank and any number of professionals that I had counted on all my life said, "Don't give up. Don't quit. Because we are all--."

I'm not going to mention the name of the geologist because he's probably a good friend of yours; we all know him. But he had been hired by the other side, by the defense, to try to blow the microprobe work and the U.S.G.S. work out of the water; in other words, to say that it wasn't valid. This chap is a very prominent geologist in Nevada.

Ian Campbell heard about it. I think I've met Mr. Campbell five times, six times or something. He called this geologist up

and he said, "You are one of the top geologists in the country, and you have that reputation. And your father was a damn sight better than you are before you. But if you show up on the other side of the table with a highgrader, you are going to have tough sledding when you hold your shingle out and want to represent a mining company. I'm just telling you that."

Ian didn't tell me this. I heard it second-hand from another engineer, that he had come to my help without even saying a thing to me. Finally after the trial and all, he said, "I did ask this fellow to think very seriously about it if he wanted to back a highgrader." So I was lucky in a way; I was very lucky. It turned out that this geologist that wanted to appear on the other side had a personal animosity against the fellow from the U.S.G.S., nothing more than that. He had no interest in highgrader or me, didn't even know who I was. But the two of them were looking for a little publicity or something and they just didn't like each other. So I was lucky to have this go through.

Then through Appellate. The only thing--it was dropped after Appellate; it was just thrown out. The evidence was so conclusive. But the defense lawyer did not question the use of the microprobe and we were really disheartened about that because it would have been a landmark case. It was the first case that a microprobe was used in that manner. If he had questioned the use of that equipment, it would have been published in all of the legal papers in the country, which would have helped many other mining companies.

As it was, I asked for a modest amount, a very small amount of publicity. Of course, in our local papers, legal papers, California and all, the case was given plenty of airing and of course in the local newspapers it got plenty of airing. I really hoped that it would have gone all over the country so that it could have provided a road map for other people caught in the same trap.

But the microprobe today is sort of like these new--what is it?--DNA or your genes and all of this. It's pretty hard to refute. When a microprobe takes something apart, it does it darned near that well. This is what we used.

I think I've been too long-winded on this, but it was a first.

Swent: No, no. It's very interesting.

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Swent: So you got the highgrader put away.

Dickey: We got him put away in the federal prison, which suited me fine, but I would like to go back just a minute. My kind of rambling discussion sounds like I just walked into the Bureau or the U.S.G.S. and asked for help and they gave it to me. At first, when I told them of my problem of highgrading, they more or less laughed at me. They said, "It's not our job to become involved in helping itinerant miners who come in here with problems, so why do you think we're going to help you, Mr. Dickey?"

I was talking to the man who had signed, at that time was responsible for, the OME loan that I still had out, Hal Stager. He had replaced Paul Fillo. I think I am going to state that I think maybe U.S.G.S. became involved after the Bureau of Mines, but anyway this Mr. Stager was the man I addressed. He said, "Well, Dickey, I would like to help you. I would do anything I could for you, you're a decent chap and all of that, but I can't."

I said, "Mr. Stager, I don't think you realize that it was your gold that was stolen."

He looked me straight in the eye and he said, "What do you mean it was my gold that was stolen?"

I said, "Not your gold. The government's gold, of course. The ten percent that I have to pay you back after all production. Obviously that was the gold that was stolen."

He thought for a bit and then he threw his head back and started laughing and we both had a good laugh. I said, "Now, do you think you can help me?" [Laughter]

He said, "I can try, now."

We used that as a wedge to more or less get the help from Radke, as I said, and then give us an entree to Davis and accomplish this. But nine months of very unpleasant going sometimes was what it took. I wouldn't do it again. I might encourage somebody else to do it.

Swent: Were you backed by other mine operators in this thing?

Dickey: Yes; I was backed by many people in the industry that I didn't know all that well. People from Homestake would call me and give me tips and help. Frank Howell--I talked to him many times about identification and how I could go about handling it. People just volunteered. They weren't necessarily just the mine owners from

around my area. It was just my peer group or other engineers that saw that I was in a jam and volunteered.

Swent: You were fighting a battle for everyone really, weren't you?

Dickey: I had taken on possibly a losing battle, but I was bound and determined that I was going to see it through. They all came and helped. I was very, very grateful.

Maintaining Security in a Remote Area

Swent: I was going to say, you mentioned the threats of burning and so on, but you were in a very risky position there in lots of ways. Your payroll, going in and out with the cash that you have to have on hand, and so on.

Dickey: Payroll in this day and age is done by check, so that is reasonably protected. The bullion and concentrates are up to me to get it to the post office, but really very early on, and I think I mentioned it before, early in my life I realized that doing anything by the book was a big mistake, that a professional criminal of any sort has to have facts before him. He has to know who is carrying bullion, what day the bullion goes out.

I don't know if I mentioned it, but there was a gentleman in our district here by the name of Santos, a very unpleasant fellow that wound up by murdering one mine owner and several other people. During his trial in Nevada City, the district attorney, whom I barely knew--and this was clean back in the fifties--said, "Dickey, I would like you to come and be in court today."

I said, "Why?"

He said, "Well, I can't tell you why, but would you do it? I think it would be a favor to you."

I said, "I hate trials. I hate this man. I read of all the obscene things he's done to various people in this county and northern counties. I just could not come."

He said, "You come down here."

I came in at the time of the trial where they were reading from what they call the little black book. The little black book contained the names of every gold mine that I heard of in this district, Sierra County, Nevada County, Plumas, this whole area in

which Santos and his gang operated. The little black book described the, I guess you would call it the m.o. [modus operandi] the police would say today, of every one of these mines. When they described the Sixteen to One, they would name names--"Dick Bennett and Ping Hunley will carry the retort sponge from the mine up the hill to Alleghany and to the post office. They will leave between two and three o'clock on Friday, the last Friday of the month." Everything was spelled out like this.

They went through mine after mine. They ticked off the Newmont mines. "So and so of Newmont will be carrying so many gold bars, such and such a date, such and such a time." They came along and they came to the Oriental. Under Oriental, he had written down in handwriting, "We know the Oriental is shipping both bullion and concentrate. We suspect Mr. Dickey is handling this. We do not know how he is handling it. We do not know when he is handling it. Stay away." That was a clue given to me in the fifties that has guided my life since that time. I have never done two things the same way in my life. I have had bullion go out of the district in dump trucks, under the seat of my car, in the regular mail from Alleghany. You name it, we have tried it, just to be sure by that rule that I never conformed to the rule.

In a larger company you can't do this, obviously, and there are times for things. At the end of the month, you do make shipments. But a professional likes to see that. I felt that some of the protection I had through my life and times up here in this district have been that people do not know what I do. I show up in the mine at three o'clock in the morning.

Swent: I was going to say, you're working very closely with your men too.

Dickey: I am with my men. They see me go by; they may not see me for a day. When I make a trip to San Francisco, it's very seldom that I make any statement about when I'll return or if I'll return or anything else.

Swent: I've been hesitant to ask when I call up here. I don't know who it is who answers your phone.

Dickey: We have a watchman on the property, and his wife.

Swent: I've been reluctant to ask, "Is he in San Francisco or when will he be back?"

Dickey: If you identify yourself and all, and if you sound as if you had business with me, she won't give you a phone number or anything but she will say, "He's in San Francisco" or "He's in Detroit" or something like that, and then you might be able to work from there.

Swent: I have really hesitated to ask because I thought they really shouldn't answer that question.

Dickey: Yes, it's part of the system. In the old days--and the old days here in Sierra County aren't that far back, maybe ten or fifteen years--our phone system went from tree to tree on a single wire. We had a telephone operator, and it was better than a newspaper; we did not ever discuss business over the telephone. When I told you earlier of our game with Mr. Metzgar, we actually drove to Downieville to make the telephone call back to Nevada City to say, "Could we have an appointment on the next day with Mr. Cassidy." We didn't do it on the telephone. I have never made any kind of a request for shipments or statements to the smelter or anything that I was going out on such a day. I wouldn't use the phone for that.

Swent: Have you ever used ham radio? Do you have radio up there?

Dickey: Yes, we have a businessman's radio up there so that we are all tied together, our trucks and the mines and my house. My poor wife acts as sort of a dispatcher. That helps. I can break in into the forest service. They also are using the same type of equipment so I could get, in an emergency, into their hookup and also probably into the police.

Swent: Of course, other people can get in onto yours, too, can't they? Or can they?

Dickey: It's pretty well protected because mine is set crystal. The only people that I could get to would be people monitoring all the channels. I have my own frequency. I spent the princely sum of fifty dollars to find a frequency that nobody else had. You do that by sending to Washington and they, I don't know, send you some oddball number and then you get a crystal that is that number. Well, a month after I had paid my fifty dollars and put another $1,000 into the set, I would turn my set on and I would hear all this chatter on it--"Put the log down easy," "No, that's too far. Bring it back over here." "Okay. You're clear." All of this, and my men were listening to it on the truck radios. Finally I broke in on one of these conversations and I said, "Who in the world are you people? What are you doing with logs in this country?" "Oh, we're the Ericson Lumber Company." One of the largest lumber companies in the state, they had come from Oregon, or Washington, and transferred down here. They brought their number down from Washington.

So here I've got loggers all through the Sierra Nevada now calling in, "My chain saw broke" or "The helicopter crashed" or something, all on my thing. But most of the time I have it to

myself. And now, of course we have a microwave radio setup that's right up-to-date. So it's not quite the way it was in the old days.

But ten or fifteen years ago, one county had a telephone operator--the old switchboard--longer than us. I can't remember whether it was Alpine or Plumas or where it was, but there was only one county that was a little more backward than we were. [Laughter]

Swent: The "Good Old Days" weren't so long ago.

Dickey: The "Good Old Days" really weren't that far back.

Geological Research at the Oriental

Swent: Do you want to talk about Mr. Coveney and Mr. Böhlke? That must have been in the fifties, early sixties.

Dickey: Yes, Raymond M. Coveney was the first.

Swent: His dissertation, I think, was in 1962.

Dickey: He was involved for quite a period in getting out his thesis for several reasons.

Swent: How did he connect with you?

Dickey: The same gentleman that we were talking about, Art Radke, with the Survey had been approached by a wonderful gentleman from Ann Arbor, Michigan, Bill Kelly. Bill Kelly was the professor for, I assume, Radke and several other very brilliant people. Brilliant and not so brilliant, but usually very, very good students. He, like most profs, was looking for projects for his students on graduation. Kelly, through Radke, got a hold of me and said, "Would you be interested in allowing a young man to work on the property?"

I said, "Well, I haven't done it before. I don't know how much I can open up. I don't want all my private business going public. I'm not sure. I'm not against it but I'm not sure if I want to do it. I certainly am not in a position to financially support it the way it should be supported, so there will have to be help from someone else."

Bill said, "We help and there are funds, but I would like to come out and talk to you."

He came out, made a tour, I assume, because he had many students looking for positions or places to go at the time. He came out from Ann Arbor and I met him and, again, became a lifelong friend with Bill and his wife. He has gone on to do just brilliant work for our geologic advancements. He was one of the first persons into plate tectonics and all these wonderful things now that we have, the world shifting around underneath us.

Anyway, he brought Coveney out. Coveney also had been supported somehow by Homestake and I don't know quite the tie there, but Homestake had given him permission to use part of their property, not the used property, not there right at Lead, but they had hundreds of thousands of acres and they had one or two exotic mountains with all kinds of good things on the mountains. During summer courses, to help defray costs and all of getting his doctorate, Coveney would go back to Lead with ten or twelve undergrads and run them up and down these mountains on the property there and try to teach the field geology.

He came for one full summer. It could have been the senior year, or it could have been just afterwards, and he spent the summer here at the mine. Then he went back.

Swent: You had to put him up and feed him?

Dickey: We put him up; we didn't feed him. He arrived in a Volkswagen with a wife and two or three young children, I think two at the time, maybe three, but really young children--so big, all three of them fit in one seat--and worked during the summer at the Oriental doing mapping and taking the samples and what work he could do away from the university.

Swent: I bet they had a wonderful time.

Dickey: He had a good time, I think. He had a pretty good time.

Swent: Where did they stay?

Dickey: We still had the Kenton Camp, our old camp that I spoke of, and we made one of those houses available to them. I think they thoroughly enjoyed it.

Swent: I would think so.

Professor William Kelly

Dickey: Poor Dr. Kelly came out. He was making another trip to the West. I think they had a permanent camp up in Jackson Hole or some place around there.

Swent: The University of Michigan does a lot of summer field work in Wyoming, I know.

Dickey: He made that trip and he came down to see us, mainly to look over the shoulder of Ray and see how he was doing. He arrived the day before Thanksgiving. I can't give you the year, but the day before Thanksgiving. He was tired and he said, "Do you have any fish in this stream?" Kanaka Creek.

I said, "We have wonderful fish but the fish are very wary. If you go down and sneak around from one rock to another, you might catch one or two little fish."

He was an avid fisherman and he was used to the streams in Wyoming and Montana and all. He whipped out his gear and he went down. He didn't have his waders on but he had a pair of tennies or sneakers on, and he stepped on a rock and he slipped. He did a pirouette and he landed on his elbow and broke his elbow. We at the time didn't have an ambulance and we didn't have a doctor. A broken elbow, though very painful, certainly wasn't life-threatening. So poor Bill and Coveney and I got in this old beat-up Mercedes that my mother owned and we rushed him to the hospital here.

I called ahead and I had a friend of mine, a surgeon, ready to take care of him. They got him in and got him in the operating room and they got a pin through the elbow, whatever was broken, and then they put his arm in a cast and said, "Well, you'll be as good as new tomorrow, Bill."

I stayed with him. I barely knew the man at the time. I knew him to be a nice, very decent chap, but I didn't really know him. I stayed with him and they gave him a shot of something and he was getting more and more sleepy and I thought, "Gee, he's home free. I'll go back to the mine, and come down in the morning." So I left.

I got a call from the hospital in the middle of the night, saying that he was just really upset and he was demanding this and demanding that and I said, "What's the matter?"

The nurse (I think it was a nurse that called me) said, "He says that his chest is hurting him. His chest feels like it's full of water. I've told him that it's just the healing and it's the medication he's had."

I said, "Nurse, you had better get the doctor over there right now."

Hosebein, the doctor, came over. One lung had already collapsed and he was on his way out. What had happened: he's a slight man, not a big strapping fellow. People have funny lungs, I guess. I've never seen mine, but his lungs or part of the lung was clean up here under the shoulder bone. When they gave him the local (they didn't give him a full anaesthesia because he had had Thanksgiving dinner the day before--he had had this full meal and I guess they don't put you out if you have a full stomach--so they gave him a local), the local involved a block. The block was a hypodermic needle above the arm. The needle went into the lung. And it collapsed the lung.

Here this poor man was--. If the nurse had had her way, he wouldn't have been around in the morning. Anyway, we patched him up and got him back on a plane back to his wife maybe two days later and he felt a little more chipper, but I don't think he thought much of our hospitals or the West Coast or anything else. Within--I won't say six weeks, I don't know--a few weeks later, he had to go out to Wyoming. So he went in and asked the doctor if he could take the cast off his arm and the doctor said, "No, you can't take it off. You can take half of it off if you want. You can't take it all off. You've got to keep that upper half on."

He said, "Well, I want to fish."

The doctor said, "No, I'm not going to be a part of it. You go on out there and at the end of the summer, when you come back, I'll take it off."

He talked some local hospital there into cutting the cast. The doctor said you could cut the cast, and the doctor had actually put a blue line around the cast. So they took a saw and they cut the cast, but they broke off the wrong piece. Bill went like that and broke his arm again. They left the gauntlet down here [pointing to the wrist] with the cast on, you see; he has nothing the matter with his wrist, and they took this part of the cast off [pointing to elbow] and it broke again.

The fact that Bill and I have remained friends over all these years is quite surprising because he didn't have a very good feeling about our thing.

Raymond M. Coveney's Research on Gold Mineralization

Dickey: Anyway, this young doctor went on; he was a very thorough young man. He wasn't a brilliant--.

Swent: This is Coveney?

Dickey: Coveney. He went on with his work. I think he got off the track a couple of times using natural occurrences that he couldn't back up either in the lab or with his reasoning. So they wouldn't pass him. In other words, they wouldn't accept the doctorate until he cleaned up some of this work. Also, Bill Kelly was a stickler for English. He was bound and determined that anybody who came out of that school both spoke English and wrote English. Coveney was not the world's greatest English writer. He wrote in a script that was I'll say it's an eighth of an inch or, no, maybe a sixteenth of an inch high and you're down there like this trying to read this. I'm sure that Bill got after him for that.

Also, he was doing some fluid inclusion work. This was state-of-the-art at the time. He found not only a gas bubble in a piece of quartz but he found a solid. When they tried to figure out what the solid was, they found that it was a wonderful mineral, dawsonite. Well, dawsonite wasn't in the literature. This wasn't one of the vein-forming solution minerals or something. He did quite a bit of talking about dawsonite. I didn't know what it was. I called up Kelly I think, and I said, "What the devil is dawsonite?"

He said, "You know. It's the main constituent of Tums. [Laughter] But we make it in the laboratory. We don't find it in a fluid inclusion." Here this clown, I don't know, at umpty-ump hundred dollars a copy for this very special work--

I'm telling that only as an aside. It took him a little time to reshape his doctorate.

He got stuck on hydrogen. He was bound and determined hydrogen played a major part in the deposition of these highgrade pockets.

Swent: I was just looking up the various titles here. He talked about a hydro-thermal process, ore shoots restricted to zones of altered serpentinite, unaltered serpentinite with hydrogen gas.

Dickey: All right.

Swent: "Hydrogen-caused precipitation of gold."

Dickey: All right. You see, this is what got him in trouble, because he couldn't prove it. And it has not been proven.

Swent: Here we are. *Hydrogen and Serpentinite: Their Roles in the Localization of Gold Ores at the Oriental Mine in Alleghany, California.*

Dickey: He stubbed his toe a bit on that because he couldn't prove it in the lab. The process of serpentinization, which is an alteration of course, is the world over often accompanied by hydrogen. I know in the Philippines, I visited mines there; I went to see [Arthur] Beynon over there once before he went with Homestake. You would see these flares at night burning. It was always hydrogen gas and it was always in an area where you had this ultramaphics and hydrogen being released. Hydrogen is a reducing agent; there is no reason why it couldn't help precipitate gold. But the problem was he couldn't prove that it did. When you take a position like that in a thesis, you're obligated to work it into the ground, throw everything at it you can and prove your hypothesis. This is part of your thesis.

Swent: But isn't serpentinite sort of the key you look for all through the Mother Lode?

Dickey: Oh, yes. He was perfectly correct on that. But the hydrogen gas may or may not. Hydrogen was what he was really interested in, what he stated was the trigger for these highgrade pockets, and it wouldn't fly. I think in all due respect, anybody could have made that mistake. He just thought that he was on to something and then when he tried to see it through, he couldn't prove it and it wasn't accepted. His own mentors said, "You haven't proved it to us so we're not going to put our stamp on it. So downplay the hydrogen and work on the other part of the treatise."

Swent: What he did eventually get was just titled *Gold Mineralization at the Oriental Mine*.

Dickey: But his initial papers came out hydrogen and the effect on hydrothermal solutions in the district and all of that. But he had to back up; they made him back up. This took him a little time. Another sort of a misstep--he went from Ann Arbor down to Kansas City, Missouri. He's still there, at Missouri. Kelly had advised him to go to the federal center in Denver and talk to a chap by the name of Rye. Rye is probably the leading exponent or practitioner or technician in working with fluid inclusions. Coveney, instead of going there, decided he would try to do it more or less in-house and he teamed up with a physicist, I guess, there in Kansas City. They tried to make their own equipment, or use the physics department equipment. What they were trying to do

was see what gasses, what minerals, what elements are entrapped in these fluid inclusions.

They couldn't get the machine to work. Kelly was furious with them because he said, "You have a machine. The government has a machine up in Denver. Why don't you use that?"

"We were going to try and use this thing." They could never evacuate it. In other words, it always was contaminated. That slowed him down because part of that work was also part of this, you see. So he didn't publish. It took him several years to publish.

Swent: Did any of this help you?

Dickey: Oh, yes; it was a help later on.

Swent: In what way? How does this theoretical geology help with mining?

Dickey: A laboratory geologist and an ore finder are two different types.

Swent: That is just what I was wondering. How did it benefit you to know that there's hydrogen gas in there anyway?

Dickey: They are pretty much repeating what we knew. In other words, they are finding it and proving it by other methods. I have a model. My model is not a nice piece of paper like that. My model is behind my eyes, looking at what I have seen. I have seen associations; I have seen structural controls; I have seen various rock types. Serpentine, serpentinite as we say, or serpentinite [stressing second syllable]. I think that's British because I got that from the Australians. It's always serpentinite and I always say serpentinite. Same animal.

But the search in the fluid inclusions I was interested in, because if only in the highgrade zone you have certain inclusions and you don't have them over here in the barren rock, if you should find inclusions here in a drill core or running the drift away from the ore zone, if you see these same tell-tale pathfinders, it would be a help. In this case, it really didn't help me that much. Some of his dating--he did a certain amount of dating and it wasn't until the days of J. K. Böhlke that the true dating was found. Which rocks came first, what was the sequence, what was going on concurrently with the gold deposition.

J. K. Böhlke's Geochemical Research

Dickey: So J. K., who just finished up a very few years ago, was the one who did just a tremendous treatise on the geochemistry of our district. And the dating and aging of all these rocks and all. He has gone on--he went to Argonne [National Laboratory] from here. Then from Argonne he went to the U.S.G.S. in Reston. He was involved in ore deposit work there at Reston. He was offered a job as the head gold man for the Pacific Rim. When it came time to move him, he discovered the government had no money to move him. They could pay him, but they had no place for him at Menlo Park. He would be an expert without an office and without any moving stipend or anything, and he had to stay back East. I think he now is in the water division, soldiering on with the U.S.G.S. Brilliant.

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Swent: Where was he when he was doing the work here?

Dickey: He lived at the Oriental, collected all the samples here. He didn't stay as long as Coveney. He had more of an idea of what exactly he wanted.

Swent: Was he from Michigan also?

Dickey: Originally. Undergraduate, he was at Michigan. I don't know whether he was under Kelly or not. I know he knew Kelly and he knew Kelly's work. But he started at Michigan and then moved, I don't remember, down in Florida or something like that. Then he came out here and worked for his doctorate. I'll have to review who actually--. I think it was probably the University of California where he finally wound up under the mentors there.

Swent: How did this dating business help you?

Dickey: We have an awful--I think they use the word melange--melange of rocks. It's all part of the Mother Lode system. Dating has been a problem in setting the sequence of deposition. We know that gold did not come in in the first upheaval or the first faulting sequence. It came in quite late down the line, maybe in the third or something like that.

Swent: Why did you care? What difference does it make?

Dickey: Well, because you can spot it in the veins themselves. In other words, you are able to pick out--now this would be the first of the first series of pulses, we'll say, and this would be the

second and the third--host rocks that contain the veins. You are traveling from one host into another host. Some of them play a chemical part, some of them play a physical part of the deposition. Serpentinite again probably plays a dual role. It acts as a wonderful dam. It's a very plastic rock so any amount of faulting occurs along it. I believe that there is probably a chemical reaction too that could cause the deposition of these highgrade pockets. We never look more than, we'll say, seventy-five feet away from the serpentine. I feel that it is a chemical thing.

Part of the dating goes into establishing which rocks were laid down first. You're dealing with a whole series of metamorphic rocks that have been altered so badly you're really not sure what they started with. The serpentine itself is an ultramaphic that probably started off as a gabbro or something and you're not really all that sure. So dating does play a part. But again, theoretical more or less, in forming a total model for the district. It doesn't help me. It doesn't give me an arrow, so to speak. I think this is what you're getting at.

Swent: I'm wondering. Did it just make you feel better to know how old it is or does it help you to find it?

Dickey: It doesn't really help that much in finding it, and yet, some of Böhlke's work did point to the fact that gold solutions come in through different types of rocks. Some rocks were much more prone to be both altered and also impregnated by the solutions. You could have--some of the schists or quartzites would lend themselves to that. Sometimes a granite can be prepared to accept these solutions. So you could find solutions out in the walls.

If I had worked farther down on the Mother Lode, I would have known that. The grey ore, the Mother Lode, is usually a quartzite that has been flooded with the same solutions that form the vein itself. But they get out. You get a very low-grade, quarter-ounce or something like that, .2 ounces, which today is pretty good ore. That's what's being mined up and down the Sierra Nevadas today. We never realized why, in one of our rock types, a granite, it should contain gold. Granite does not normally contain gold. Well, it's part of this preparation process that Böhlke was working on. We know what it is now, and more about it.

Swent: Did he lead you to look in different areas again?

Dickey: Yes. And at different rock types. I won't say it's been all that successful. In other words, I am not mining today anything that I went looking at. I have a far greater idea of the district and

what I'm doing there and what is important and what isn't important.

But this drawing of a model is a very complex thing and mining companies like to feel, probably justifiably so, that they have a model for a certain type of deposit. I know the lengths that mining companies went to to try and find out what the model for the McLaughlin Deposit was. They would have killed for a look-see at the model before the mine went into production. All kinds of monkey business went on down there, trying to figure out, what is this model? What are these mercury areas? Why are they connected?

This is what they are trying to do in a district like ours, but sometimes all the pieces of the model fit and then the next time, they'll make a mistake. One piece won't fit and it will throw them way out in left field. It will get them into big trouble. To a person who has worked in a district all their life in a certain type of a mine, they are sure of a certain number of these pieces. They will rely on them and they will be very reticent to reach outside of those and say, "Gee, that might work." You've got to pretty well rub a person's nose in something to make him believe that this is a new tool.

The trace element business--I've been exposed to it; I believe it; I swear by it now, but when it first came on the scene, when I first started using it, it just didn't help me or I didn't think.

Swent: Do you use that as something to help you look for ore now?

Dickey: Yes, I am now. Probably I'm using it to keep me out of areas more than I'm using it to take me into areas. In other words, diamond drilling is one way of exploring. Of course, it's less expensive than running a drift. From your drill core, you drill through a vein--is this a bona fide highgrade vein? Well, if you find a piece of gold in it, and it assays, you can call it a highgrade vein.

But our veins run less than .03 ounces per ton. That's for the whole vein. So you are going to get hundreds of .03, .025, .027 as you look at the vein and you might get one piece of gold, one particle of gold. It's going to throw your assay off. It's going to give you maybe a half-ounce assay. When you are going through your list, you are going to take that assay and throw it away because you shouldn't either use the high or the low. You should mean the other, and this is what you should be looking at. If you do it in our district, you've lost your chance because that one little speck of gold could lead you to the area that you want.

But the trace elements don't fool you as badly as that. As you come to a hydrothermal vein, the trace elements can be out on the wall rock. You will see the arsenic content go up until you get to the vein, and then you will see it go down as you go away from the vein. Galena, lead, zinc, sphalerite, whatever, you see --so it paints a picture that to me is more meaningful than actually an assay, much more meaningful.

Swent: You send your cores off to somebody to analyze them?

Dickey: Oh, yes. They'll be automatically analyzed for not only gold and fineness but right now I'm using seven trace elements. GSI is doing our work and every sample that goes out is assayed in this manner.

Swent: Do you ship all your cores or just a sample?

Dickey: How can I answer that? Yes. All the core that I think that I want to look at. If I see barren country rock, obviously I'm not going to worry about it. But if I see a flooding of silica or something like that coming into a vein, I'm going to back up away from the vein and start work 10-20-30 feet away, and start assaying as I come in and as I go out the other side.

The other tool that is probably more important than this, is the fact that--this is recent and I'm probably way off base here. The Australians, that we will speak of at some time, left me with umpty-ump thousands, I mean thousands, of samples. The samples of course were chips from a down-the-hole hammer. I'm not used to looking at chips under a microscope. I am, as you know, not a geologist by trade or a mineralogist. Looking at the blasted sacks of chips, I really didn't know what I was looking at. You can see a little bit of quartz in all of them. I wasn't present when the holes were drilled, so I am dependent upon what the geologist who was logging the hole at the time the drill was going through an area, what he wrote on a piece of paper. He may have missed something.

Swent: They did this instead of diamond drilling?

Dickey: Yes. They did down-the-hole reverse circulation. I was dead-set against it and yet, they were again correct. They wanted the cheapest method to look at a large district quickly. If they had gotten more of a sniff, we'll say, of what they were looking for--again, disseminated gold; they weren't looking for high grade as I did, they were looking for disseminated gold--so their assaying could have been much more sloppy. Their identification of rock types wasn't really that important until they got a spike on their

feedback from the assays. When that spike didn't occur, they abandoned that hole and went on to the next one.

I've had to go back and try to make something out of their work that might benefit me. I had the gold sample, I had the gold assays, and they didn't mean much. But I had the detail written down by the hole sitter as they call it, or whatever the geologist's name was, what he thought he saw coming out of the chips. Also I have my trace element study. On the basis of that trace element study, this is what's kept me going as long as it has and what I'm working on today. How successful it will be, we'll talk about some other time. I don't know.

Swent: That's what keeps you going.

Dickey: It's a process that is valid.

Swent: When they pull out, they leave their bags of chips behind?

Dickey: Yes. Part of our contract was that any non-interpretive samples, work, paper, assays would remain with me. The interpretation of what they saw they could take with them. I think most mining companies hate to be caught with their pants down so to speak. They hate to make a statement and then be proved later to be wrong. It's easier to put it that way and I don't blame them the least bit. But I was very, very strong in the negotiations that I wanted all assays, I wanted original samples.

They drill 400, 500, 600, 700 feet in a day. Every five feet they take a sample. The sample is a 70-pound sample. A 70-pound bag is about that gross and the sample goes through kind of a splitter-whirligig system. A five-pound sample is automatically put in a little bag and it's that bag that goes in for assay. The 70 pound-one is just left out in the woods. They don't even bother to haul them in, unless they become really interested later on. They were drilling in the middle of winter, they were drilling with snow all over the tractors and equipment, and just miserable going, and these sample sacks would be buried within a day of the time they moved them out of the way.

I went back in the spring and collected everything I could. Luckily the numbers were still on them and they weren't broken. I dragged them all in from the woods and put them into storage, and then became interested in doing this work that we can talk about later.

But I should go back to Böhlke and also Ray Coveney. Coveney has become at least a stateside authority on auriferous and metal-containing shales. This has become his forte. He is

very, very prominent now and has gone on. He was a very dogged individual. He just wouldn't take a no. He couldn't jump from point A to point C. He had to touch B and then come back down. Böhlke is just the opposite. Böhlke is a brilliant, incisive--. He gets hot flashes and he can get from this side of the table clean over here and then go back to prove his point. It's just the difference in the way a person's mind works. Ray has gone on just to do a bang-up job in his way and Böhlke with this flash and this brilliant, brilliant mind of his is now a leading light with the U.S.G.S., working on top, top projects, all of them so far out in space they leave me absolutely cold. He explains them to me, he sent me his doctorate, his doctorate is about so thick, all computer read-outs, figures, chemistry, all of this stuff. I can't make heads or tails of it.

But it's splendid work; I know it's very, very good work. I have to wade through it and try to find the two or three little kernels that I can use to try to help myself. Both of these men have remained life-long friends of mine. Böhlke's wife is a very prominent civil engineer. She's a young lady who's doing all kinds of tunnel design work. I think she designed a tunnel to go under the Pali, the lowest tunnel in Honolulu. She's done all kinds of work around Niagara Falls and made the mistake of drilling into a hazardous waste dump. She told her drilling crew to get the hell off the property. The government said, "Lady, we paid you to drill this hole."

She said, "You bring another crew of people in here if you want that hole drilled. I'm not going to jeopardize the health and safety of these men."

They did bring another crew in and they said, "You are right. We don't belong here." It was something dating back a hundred-and-some-odd years. There were many chemical plants around there. They just threw everything out the window, as everybody did. She happened to hit one of these.

She was with Parsons Brinckerhoff when they lived out here. He's done a great deal of work at the University of California. I'm sure that's where his degree is from. Anyway, she worked there and she was put on this hazardous waste, hot waste disposal site. She was given the choice of Hanford and Jack Rabbit Flat over in Nevada. Hanford, the test site. Then a salt dome in Texas or Louisiana or something. She worked for three years and she said, "I can tell you the worst site is Nevada, the second worst is Hanford, and the best is the salt dome."

The government said, "That's fine. We're going to put the site in Nevada." That was the end of three years' work. And

millions and millions of dollars spent. I guess they're still arguing. I don't think that they have finally figured out where it's going. She's smart enough to be on that so she's a pretty sharp gal too. Very sharp gal. She is a gal doing underground tunneling work. Pretty tough, and it doesn't bother her at all.

Swent: Was she on the team up here too?

Dickey: Yes. Well, she came with her husband but she was usually working on her own work. He bounces all kinds of ideas off her head when he's talking but she was so busy with her work. She was gainfully employed before he was. He was still struggling when she had gotten her doctorate and was working for the engineering firm. Nice people. Pure people, both of them. And I'm convinced that both of them will go on to lead in their age group to become tops in their professions. I think she will be more on the practical side or the digging side and I think he will be more in the laboratory, and his breakthroughs will come using the latest technology and equipment that we can devise. We need men like that.

Mining Equipment

Swent: Speaking of technology, do you want to mention technology and any different mining equipment that you have changed in the mine?

Dickey: We've sort of beaten around the bush on it but basically, in the type of mine that I am involved in, I am caught in the technology of practically the last century. In other words, I am still dependent on methods and tools that were used years and years and years ago. I am not able to get into a position where I could use block caving or in-situ leaching or open-pit mining. Most of this has passed me by; I am aware of it; I try to keep up to date the best I can.

Swent: What equipment do you use?

Dickey: Well, basically, jacklegs. The jackleg and we use stopers and we use slushers and mucking machines, but all of this dates back into the 1930s. Some of it dates back way before that. So we're fifty years--. Not behind the time, I mean things have improved. I don't mean that things haven't improved, like our steel.

I think I mentioned early on that my first job at the mine was sorting bits, thousands of these miserable bits that had to go down to the hot mill and all. Now we use tungsten carbide, and my

men carry two bits underground when they go to work in the morning instead of taking rack upon rack into the mine.

Swent: What kind do you use? American?

Dickey: We use American now. We use Swedish steel. We're using Sandvik steel but the bits are knock-off bits and they're throw-away bits. We're experimenting with them. They're made here on the West Coast and cost-wise they seem to be doing a good job for us. They're a hex bit. They're probably on the Timken patent. I don't know; I imagine the Timken patent ran out thirty, forty years ago. But the hex bit was an original Ingersoll-Rand-Timken proprietary thing, I believe.

Swent: That was a tremendous development for Timken.

Dickey: That was a huge development in its day. Then tungsten carbide, when that began, tipping the bits became a large bonus for us.

Swent: Well, as you say it revolutionized the whole thing, didn't it?

Dickey: Right. We tried to stay ahead. I keep referring to Grass Valley and Nevada City, the Cornish camp and the types of mines here. The Cornishmen did not really accept change. They were not good at reaching out and looking for change. So when things like the jackleg came on the market, my own foreman said, "There's no way I'm going to put that toy to work in this mine. Now you put up a column bar"--well, a column bar weighs two hundred and some pounds--"and then you put the arm on the column bar and then you take a crank machine, an I-R 75, then you drag that in and it weighs 250 pounds. You put that on the bar and then you bring a whole faggot of steel in and one steel will probably go one foot before it's dull. You can't expect that toy over there to do the job."

I worked for weeks trying to convince my own foreman. He wasn't even a Cousin Jack [a Cornishman]. He was a French-Canadian who had worked in the mines here. But there was one way of doing things and that was it. It unfortunately was the way it was done here at the Empire.

Finally, the salesman for Atlas Copco, a chap by the name of Jim Abrahams, was a practical miner. He actually came out of the Empire Mine, everybody knew him, wonderful man, and he demonstrated the drill. I said, "Well, I'm not going to order you to take this drill, but I'm going to make a bet, and I'll make it worth your while. You, Frank (the foreman's name was Frank), pick the best miner you've got and the two of you get into a T heading that I'll pick for you. You're going to drill on one side and Jim

Abrahams is going to drill on the other side. We're going to take all your equipment down the shaft and put it on the station and both of you have to walk a hundred feet dragging your gear and I'm going to sit at the station and I'm going to time you."

Well, at the end of about an hour and forty-five minutes, Jim came out dragging all his equipment behind him. I punched the clock and wrote down the time. Here the old crank machine is still going and Frank is swearing a blue streak and he said, "The rock was different. That's the only difference. He only put in so many holes. He used a burn cut and I don't like a burn cut."

Anyway, I had to swap them for the next round, you see. Same thing. This went on; it was a game. Poor Jim had to drill there for me for maybe five days in the mine. Finally, at the end, Frank said, "He beat me all right. He beat me fair and square. But that thing is so light that it won't hold up. It will never hold up. Look at that funny steel with that tungsten carbide. That's no good. That will fall out of there." It took me months to convince him that this was a good deal.

Frank finally came to me and he said, "Don, I'm sure glad I changed over in the end."

I said, "Frank, I'm sure glad that you did." I got out of it. He was convinced in the end that probably it was his doing that brought these drills on.

But we have a few things like that. Explosives are far better today. We are using a method of non-electric ignition now for our rounds that is equal to electric primers. It's a system called Nonel developed, I believe, in Europe. But it's very effective, very safe, can be used under all types of conditions where you might have stray electrical current from lightning storms or something. Again, we were talking about fires. This was of course danger in any type of underground mining where you were using track mining. A bolt of lightning hits the track and zaps into the face of the man leaning over electric primers and powder. Very bad news. So this method is new.

We have certain things that are new but basically the technique is not that different, Lee.

Swent: Are you still employing any of the old-time miners?

Dickey: Most of the old-time miners are gone, I'm sorry to say.

Swent: So you're into a new generation now.

Dickey: The man I was speaking of, Frank Knapp, who was with me for thirteen, fourteen, fifteen years, probably the finest miner I ever had, passed away last year. Like so many of them, passed away tragically with dust and the complications of dust. I think we went into that a little earlier but I stated that when I started mining in this district, if I ran a man through a hospital or an X-ray, I wouldn't be able to employ him. In other words, their lungs were so pitted and marked with silicosis, when I put them on I couldn't have found an experienced miner that didn't have it. Now, the state comp [workers' compensation board] of course wanted us to take X-rays. They were forever trying to get us to protect ourselves, which was what we were doing. But I had to bend the rules a little bit because I needed the experience. I needed these men to train the younger men.

I also found that it was much easier to take a willing, strong young man that wanted to work from the woods than some smart contractor that knew more than I did and that I had to retrain. Later on, by employing a combination of the older ones and the younger ones this really was the way to go. The lead man would be an experienced miner. Find a nice, young, tough, willing man to put with him. The youngster would do the heavy, bull work and be learning all the time.

In the crew that I am left with now, I only have one old-timer left, who is my watchman. All the rest of them are youngsters in their twenties and thirties.

Swent: That you have trained yourself?

Dickey: That I have trained myself. Most of my crew, most of my men who I had as straight miners, not even shifters or foremen, are now foremen at the Sixteen to One and all the various mines. I've trained them for the whole district up here. I've trained the mill men and the miners.

Swent: What brand of mining machine do you use? Where do you buy them?

Dickey: I've been very partial to the Swedes. Unfortunately, they are following in the footsteps of Ingersoll-Rand. Ingersoll-Rand, when we started in the 1930s, in the late thirties, '38, they were <u>the</u> equipment in this area. They had the service, they had the sales representatives that knocked on your door once a week, once every two weeks, as often as you wanted them. "Mr. Dickey, what can we get for you? Are you having trouble with the oiler on this machine? Are you breaking side rods over here? How is the hammer working?" Well, they disappeared. They disappeared after the war. It became almost as difficult as pulling teeth to get any help out of Ingersoll-Rand. They were going to supply the big

companies. They were going to supply the government contracts. And the little miner? Tough. He would just have to read the literature; he wasn't going to get much help.

Plus the fact that you couldn't get parts out of them. I have actually gone down Howard Street in San Francisco and have a sales engineer in the front office say, "Mr. Dickey, we don't know what bin the pawls are in. I know we have some but for that drill--" or that pump, or whatever I was looking for pieces for, "--would you go out in the back and look for them?" I would go through all these boxes of stuff. No control. It was chaotic. Of course, Atlas Copco, the Swedes, came in at that time. They came in in the early 1950s. They had good steel for sale. Sandvik steel was top of the line at the time. They had excellent machines and the price was right. And the service. They had people. If you wanted a compressor, "Take this compressor. Try it for a week or two and if that's the size you want, we'll get a new one for you." Something like that.

Now, unfortunately, today they are in the same position.

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Swent: So you have to go to Canada now?

Dickey: I'm going to Canada for the parts for the jackleg for the rock drills. I go to New Jersey for parts for my compressors. I go to Denver for parts for pumps. It's just a zoo.

Swent: Where do you buy the originals?

Dickey: The original equipment, of course, was all Swedish.

Swent: You're still using the Atlas Copco?

Dickey: I'm still using the Atlas Copco. I still have Atlas Copco compressors and drills. The Sandvik steel, I'm now trying another Swedish steel, a competitor, just to test it, but unfortunately with the dollar--. Let's not get into the economics, but the poor old dollar has sunk so low that foreign equipment just isn't viable any more. That's part of my problem. So the company just isn't selling much in America. I will be forced pretty soon to go back to Ingersoll-Rand. I had a demonstration of an Ingersoll-Rand drill the other day--of course I haven't followed them over the years so I don't know what they've made. I remember the old Ingersoll-Rand 300 which was a darned good drill. I said, "Do you still make the 300?"

"Well, Mr. Dickey, we did. But we sold the patent to South Africa and we were making them there. Then the quality control was something. We sort of cut off relations with South Africa."

I said, "Who's making your drill now?"

"They're being made in Switzerland."

I said, "Bring me one of these drills." Beautiful little drill. Really a nice drill, that they're going to peddle. They're not going to make it. They're just going to buy it, put a percentage on it, and sell it over here. Ingersoll-Rand compressors--I have been renting one of them off and on for diamond drilling. The engine is a Deutsch German engine. I assume the compressor end of it is American but I'm not even sure of that. A lot of this equipment is coming from overseas. If it doesn't come from Japan, it comes from Europe now. They seem to be still competitive, but Swedish machinery has not been that way. I think it has something to do with assembling this equipment overseas. Whereas Ingersoll-Rand, of course, even though they use the Deutsch engines and all, they assemble the compressor here. That gives them a price.

Swent: That's considered American.

Dickey: That's considered American. The same is being done with tractors and back hoes and everything else. It passes as American and the price is a lot different. So I'm going to be faced with this very soon if I continue. But I'm sort of hanging on by my fingernails and am very happy to step aside after the project that I'm on now. I think I've earned my keep and she's about deep enough so I'm not going to be faced with it. But I am having trouble getting parts. It's not easy.

Treatment of Concentrates and Environmental Protection

[Interview 4: March 13, 1991] ##

Swent: We've talked about what goes on in the mine, so what happens after you bring it out of the mine? What do you do next?

Dickey: Well, Lee, we try to take the average run-of-the-mine ore down to the doré product that we spoke of. In the old days we had the two products, the doré on one side and then the concentrates. The concentrates came down to the Bay Area and went to ASARCO and then

the doré also went to ASARCO at the time. Then as the years went by, at one stage of the game ASARCO went on strike after the war. We lost our, not our refinery, but our ability to have the concentrates treated, and we approached Newmont. I don't know whether we spoke about this. I think we may have before.

This was not acceptable to them. So in desperation, after ASARCO had closed their plant on the West Coast and gone out of business at Selby, I made shipments back to East Helena, which of course ran the price up considerably. Then that became even difficult for me, so we cast around for some way of trying to treat the concentrates and bring them up to a more saleable product. I approached the Bureau of Mines to ask them if they had any money or any inclination to help me. I happened to get in just at the time that they were doing quite a bit of work for Homestake in the carbon-and-pulp business back at Lead.

Some of their top people--one man I remember by the name of Heinen, and also Mr. Lindstrom--were in Reno at the time. They had a young man working under them by the name of Gene McClellan. Gene thought that it might be a good idea to take these highgrade arsenic-bearing concentrates and see if anything could be done with them. Well, it was sort of interesting because when I had approached Newmont years ago, they said, "No, this is an impossibility. Not only do we lose all our cyanide if we try to cyanide them, but we have all kinds of troubles throughout the process." I was pleasantly surprised when they said at least they would do the lab work for me.

They worked on these highgrade concentrates--high grade being around 16 ounces of gold per ton, which is a pretty fair concentrate grade--but also very high, 3 to 5 percent, arsenic on up, plus mercury, plus some other bad actors. Anyway, they did a study and the study found that you could cyanide these concentrates in a very high concentration of cyanide being about twenty pounds per ton, which is about ten times higher than normally you would use. But for material that valuable it was acceptable; you could pay the freight to have that done. They came out with an R.I. [report of investigation], which is a publication that became available to everybody who chose to read it, for which I was very grateful because there were many people sort of trapped in the same manner that I was.

I became overly enthusiastic maybe. I should have done a little bit more reading on the new rules to come out of Washington and the fact that even though I might have been able to treat the concentrates I would still have a product, an end product, that might not be acceptable.

Swent: Why?

Dickey: Well, again, the trace elements. I could eliminate the cyanide. I was confident that I could take it down below any detectable threshold; so I would be perfectly safe there. But I would still have a product containing arsenic and lead, galena, zinc, and the rest of it. Under the new rules that I knew were coming, but I didn't know how quickly they were coming, it became hazardous waste.

Swent: When was this?

Dickey: Let me see. I'm going to have to take a guess at 1985 or so, back in there. It's quite recent that we were able to do this. I may have to change that number on you. But anyway, I decided that I would build a plant. I have absolutely no expertise whatsoever in metallurgy. I had taught myself, more or less, free milling processes, gravity processes and also flotation, which we had used before the war. I knew enough about that to do the chemistry to allow me to handle the flotation mill.

Developing a New Cyanidation Process

Dickey: But cyanide was a complete unknown to me. I read up the best I could. I made one trip back to Lead and saw what they were doing with the initial carbon-in-pulp and the stripping of the Zadra cells that they were working with. I can remember seeing them winding the steel wool on these spindles to put in the cells. I had quite a bit of guidance and help from Frank Howell at the time. He suggested various papers that I should read to try to educate myself.

Well, I came back and I decided that I would make more or less a bench test, I guess you would say, upscale the work that had been done by the Bureau and put in a one-ton plant. I cast about for a method of handling the material. I thought a Pachuca tank was the way to go. Unbeknownst to me, I didn't realize a Pachuca tank was a Cornish invention or I might have been a little more careful in my engineering. I thought a Pachuca tank was a very simple device, so I designed one without the benefit of a great deal of engineering behind it and I made a couple of mechanical errors that cost me a little bit later.

But I built this and I built two other tanks. I was able to get the State of California to permit me by building this small plant in a sort of bathtub. We built four-foot-high block walls.

You sort of came over a sty to get into the building up and down, so if there were any failures in the plumbing or in pumps or something like that, everything was contained; there would be no spills. I came up with a zero discharge. With a zero discharge, permitting was acceptable.

I'll back up just a little bit: in looking for pieces and parts to build this thing out of, I realized that I either had to design and build these things myself, and I wasn't capable of doing that, or I should try to look to industry to try and do it for me. I realized that the scale on which the major companies were using it, their stripping tanks and their pumps and their cells and all were so much larger that I couldn't use any of their equipment. It was just way oversized.

Electrolytic Refining of Gold

Dickey: So I went the other direction. I started looking with jewelers. I got to thinking one night, well, jewelers plate silver, they plate gold, why can't they plate gold on steel wool just as easily, sort of doing the reverse? I went to Los Angeles and got a hold of a group down there. They showed me the beautiful little rectifier I could use, the size of about five shoe boxes. They had a cell the jewelers were using. The cell was one square foot and about three feet long. It was just perfect for the flow rates that I wanted.

While I was discussing having this cell shipped up here the technician-sales type that I was talking to said, "What is your process? What process are you going to use?"

I said, "I am going to use a cyanide process of course, and then I am going to strip the carbon in a cell and put the solution across this cell bank and plate on the steel wool."

This man looked at me and he said, "Mr. Dickey, why do you use carbon?"

I said, "You have to use carbon. Everybody uses carbon. Or I have to use the Merrill-Crowe zinc process. But you have to use carbon."

He said, "I don't know why that's true."

I said, "Well, I am not a chemist. I can't tell you. How do you suggest I do it?"

He said, "Very simple. Just plate right out of solution. In other words, don't even bother with a carbon step."

Of course, at the time I didn't know enough to say that's either feasible or infeasible, impossible, and I got to thinking about it. He said, "How do you think we plate jewelry? We put gold into solution. We buy the solution and you have to have a certain high pregnant solution, high quantity of gold in solution, to be able to make the electrolytic end of this thing work. But if it's high enough, it will work. I guarantee it."

Well, his guarantee I wasn't quite sure that I was going to take. So I came back to the mine again and I thought about it. I thought of Frank McQuiston, who had helped me in the past. I think I expressed my feelings for him. I knew that he might laugh at me and throw me out of the office but at least he would give me a straight answer one way or the other. So I called him up and he said, "Well, I'm not really the man to talk to. I'm not as much up on it as I could be, even though I have this plant going over at Tuscarora, but my partner is the man you want to talk to."

Help from Robert Shoemaker

Dickey: So I called up Bob Shoemaker. I had known Bob in San Francisco. I knew him with the Associates [San Francisco Mining Associates], Henry Colen, Joe Wargo, and Bob, when they had their office here, but in the meantime, he had moved up to Grass Valley so it was the next easiest thing to go to him and say, "Bob, will this work?" What I did, I took my report from the Bureau of Mines and they gave all the chemistry of their work. Then I took the word of this technician down in the jewelry business in Los Angeles. And I said, "Are these two compatible?"

Bob sort of looked at the data and looked at me as if I had two heads, took my papers and stuffed them in his briefcase and he said, "I'm going to Spain." Or some place, I can't remember where it was, either Australia or Spain. "But I'll think about it."

Well, on his trip, either going or coming, he must have thought about it because he drew the blueprint for my plant on the back of a cocktail napkin. Everything, the Pachuca tank, the barren tank, and the pumps that I would need. He put the whole thing down and he came up with a couple of shortcuts. I was going to filter the pulp after the gold had been put into solution. I was going to pass everything over a filter and then wash the

filter, which is time consuming and costly, and then take the solution and run it through the cell.

He got the bright idea that I could just turn the Pachuca off and maybe using flocculants or something like that, we could just decant the clear, pregnant solution from the top of the cell and repulp it three times, getting an 80 percent recovery each time and build up our total recovery to maybe around 95 percent, which we were aiming at. So he more or less gave his blessing to the idea that I had pretty much committed myself to doing, or trying to do. I had it about half built.

When we got it completely built, Bob took a couple of days off and came up and he showed me the first two, three, four steps in the treatment of cyanide. We had all kinds of start-up problems. We broke things and pumps didn't work and the typical start-up minus the engineering that should have gone into it was all in my head. Basically, I was just putting pipes together. Bob is as impatient as I am, I might add. But we got it to work. We had the solution working in the Pachuca tank for maybe six or eight hours. Bob wanted to take a sample. I said, "Bob, you know that we have to wait for, I think we were planning on thirty-six hours retention time in the cell."

He said, "No, no. You can tell. You can tell after six hours because the gold goes into solution very rapidly at first. Then the curve tapers off."

Away he goes up the ladder, grabs a sample out of the Pachuca, and we let it settle out. Then we ran it through the cell to see if anything was coming out. We wound up with some kind of brown, crummy-looking steel wool. He said, "I want to flux it."

I said, "Bob, I don't have a retort and I don't have all this equipment. I haven't thought that far ahead."

He said, "You don't need that. You've got an acetylene torch."

I said, "Yes." "You've got a crucible." I said, "Yes." He said, "What will we use for flux?"

Well, we took some baking soda--I think it was--and then we couldn't find any glass, any silica glass, so we took a piece of quartz. We beat it to pieces in a mortar. We didn't beat it hard enough to make it into a flour but we did beat it down to what he thought could be used as a flux. Then we put the steel wool in

this concoction that he dreamed up, into this crucible. He said, "All right, now you heat it."

I had what they call a rosebud which is a large tip for heating metal when you want a large area heated. I held that over the crucible and we waited.

And we waited. It got hotter and hotter, and the crucible got sort of a dull cherry red. But it didn't get up to any orange that I was looking for. Bob, who was not doing anything other than telling me how to do it, was standing back where it was nice and cool. I had a pair of gloves on but the heat had burned all the fur off my arm. Bob kept saying, "You got to get it hotter. You got to get it hotter."

I stood it as long as I could and I said, "Bob, we're going to have to do something else because my arm is on fire. It's not going to work." I took the torch away, and he saw that this molten mess that we had at the bottom of the crucible looked as if it had been warm enough.

He said, "That's good enough. Put the thing away. We're all set. We'll see what happened."

Rather than wait for this to cool, he tipped it over. We were doing it on the floor of my shop; luckily, it was a concrete floor. So he tipped it over and he took a hammer. He hit the crucible with a hammer and the crucible flew in a dozen pieces. Absolutely nothing came out the bottom except a little green glass, a glassy substance. We looked at it and two or three of the larger chunks Bob would hit, and it would splinter and there wasn't one speck of gold anyplace to be seen.

Well, I can tell you--I speak for myself first--my heart absolutely fell through the floor because I thought the whole thing was just a complete disaster. Bob, I don't think felt a great deal better. He may have felt worse. We were sitting there wondering what had happened, what had gone wrong, and he was doing all kinds of mental gymnastics to see what we did wrong. There was one more chunk of crucible as well as the flux that rolled sort of away from us. I saw it out of the corner of my eye and just sort of casually, I reached out and hit the thing with his hammer, not expecting anything, almost looking away from it. As I hit it, I saw this beautiful little gold bead, probably half an ounce. One bead rolled out across the floor.

That was our start to see the system had worked. It was just fantastic. We let it go to the end of the cycle, then cycled the pregnant solution through the cell and all, and the process

worked beautifully. I think out of that we poured a 20-ounce bar. Out of that one ton. We had deliberately picked a higher grade, a drum of concentrate. So everything looked very, very good for the system. It had worked. I had proven what I wanted to prove.

Everything was fine until I tried to do it the second time. The second time we tried it, the recovery rate went down. We realized we had what they call bad actors present. We had some sulfates present. The chemistry was getting very complicated because I had committed myself to this no-discharge, no-bleed situation. I wound up with extra water. We were continuously adding water for dilution and all. I had to get rid of this water. Not being allowed to discharge it, I bought a swamp cooler, one of these swamp coolers for a house, a large one, five foot square, and I ran it backwards. I ran all that excess liquid through it and evaporated it, so I wound up with salts. Maybe one-hundredth of what I started with or less than that. They did contain some cyanide, they did contain some gold, but at least I could keep the water balance going.

Challenges of Waste Disposal

Dickey: But we did come up with sulfates that were going to get us into some serious problems later on, I could see. Not being able to use fresh water, fresh cyanide, on each batch. About this time, the laws started getting so complex--the requirements for cyanide destruction, the requirements for handling of the waste product--that I lost my nerve and I chose to take whatever I had in inventory out of the state to a plant and have it done. I did that about three years ago.

There is an interesting aside to that. That is, I had two drums of cyanide left over from this process. I continued and did several more batches, but I could see that I needed a lot more chemical work done. I could see that it might not be a viable thing for the future. Anyway, I had the cyanide to get rid of. I got rid of the concentrates and I had these drums of cyanide, so I thought, "What should I do with the cyanide?" Well, you can't pour it down the sink, as they say. So I thought, "What better than to call the plant that had been very good and handled my things?" They were in Idaho, two brothers, and I called them up and I said, "My friend, wouldn't you like two drums of cyanide?"

They said, "Is it good?"

I said, "Oh, yes. They're sealed. They have never been opened." I had used up all the stuff that I had opened.

They said, "Bring them on up. We would love to take them off your hands." And here I had given them to them just to take it.

I drove up with my wife and put these drums in the back of a Ford Bronco. I covered them with a blanket. I put suitcases in the back so I looked like any other itinerant tourist wandering through the hills, with these two cans of cyanide. I got to the plant and I drove through the gate at the plant. Here are all these government cars. Government cars, government pickups, forest service pickups, BLM pickups--all sorts. I thought, "Holy smokes. They've had a raid or something's gone wrong. I had better take my cyanide back down to California." But one of my friends came out and I said, "What in the world is going on here? Am I safe? I told you what I had in the back of my little Bronco. Am I safe to come in here?"

This brother broke out laughing and he said, "These people are doing exactly what you are."

I said, "What do you mean?"

He said, "They are bringing us cyanide."

I said, "What's the government doing with cyanide?"

He said, "Don, there was more cyanide lying around in the desks of forest service, game control people, BLM people, used for eradicating coyotes and hawks and everything else. They didn't know what to do with it."

There was no record of the quantities that should have been there. There was this huge inventory. Of course, the government was caught by their own laws. To get out from under it, they did the same thing that I was trying to do.

Swent: Gave it away.

Dickey: They gave it away. Here they are, loaded to the back end of these pickups full of these canisters of cyanide. I guess they're sort of like a hand grenade. You pull a lanyard and put them down a burrow and they'll kill rattlesnakes or coyotes or anything else. There were tons of this stuff scattered through all the western United States.

Anyway, I got a good laugh out of that and I got rid of my drums of cyanide.

Swent: They weren't about to jump on you.

Dickey: They couldn't jump on me. They couldn't jump on themselves. But this was just before the latest of the edicts went in. I had been warned by several friends working in the government, working for various arms, on just how serious the new regulations were going to be. The problem with me, or not with me but the problem with a small company, is that under the new regulations, you prove your own innocence. The only way a man can prove his innocence is to constantly be monitoring. The cost of the necessity of getting top-flight chemists to do your work for you, so that their credibility is impossible to breach in any sort of an accusation brought against you, is just more than I felt that I could handle. I didn't want to get involved in that sort of a game. I knew that I could be accused and I stood guilty until I proved myself innocent. That unfortunately is not the way I either learned the law or chose to live. I more or less resigned from the game at that stage of the game.

Swent: It was water discharge that was your problem?

Dickey: No. Actually what would have gotten me, which didn't get me, would have been the solids, because I knew that I could handle the cyanide with enough chlorine and sunlight and air, over the period of a week or two; the small quantities that I had I could treat. They would be down in such low concentrations as to be undetectable, so I wasn't worried about that.

But the liquids were evaporated and I wound up with a concentrate that did contain cyanide, but that I could have worked with. It was such a small volume that I would have been able to handle it. But the main problem was that under the new laws, practically all of your concentrates could be classified--I'm not saying they are, but they very well could be--classified as hazardous waste. In the handling of hazardous waste, the permitting necessary, the type of truck to transport them, the licensing, the carriers, all of this is more than I could have done.

Swent: I want to be sure I understand this; you're not talking about your tailings which have to be disposed of.

Dickey: These are concentrates that have been treated. Normally, you would call them tailings. Now, tailings also can be, under our new laws, called hazardous waste. There are many tailings. Some of your uranium tailings, as you know, come under that

classification now. Because of the heavy metal content of these concentrates--. All I removed was the gold-silver, plus a few other minor, minor elements. Basically you wind up with arsenic.

Swent: Arsenic was there to begin with.

Dickey: It was there to begin with, yes, but it's still--. I haven't added, Mother Nature did it, but it still, under the law, it's chosen to be interpreted as hazardous waste. There is some mercury, there is lead of course. So the handling and the need for the paper trail is difficult. It's very difficult. I just didn't see how I was going to cope with it at the time. The doré and the treatment of that, and the high grade that I would sell, the specimen [gold] and things like that, I would have no problems with. But the concentrates I'm going to have problems with from here on out. As far as leaving them on the property, I think probably with a double membrane under them and proper filling over the top of them and all, this would satisfy the letter of the law. But it's going to get very, very complicated.

I could give you another example.

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Dickey: Another problem. I have a chemical john [toilet] for my men because we are way out in the woods. We have a base camp where I'm working now. A company built this chemical toilet very similar to the ones used on aircraft. It has to be pumped every six months or so. Before, I had a company come up from Grass Valley (that's thirty miles away). They would pump it and take it to their waste disposal site. I think I paid $100 to have this service once every six months.

Well, Nevada County decided they were tired of taking Sierra County's waste so the board of supervisors decided several months ago, only a few months ago, no more waste from Sierra County. Sierra County has no facilities of their own.

Swent: You're in Sierra County.

Dickey: I'm in Sierra County. They have no facilities where I can go. I'm not allowed to go to Nevada County. The nearest area that I can go to is in Nevada. The minimum cost to deliver waste to Nevada (the nearest pumping company that will come and service my toilet is just north of Reno), the charge is $500 to come across the Sierra Nevadas to pick it up. Now, I choose to think, and I'm sure that many people would disagree with me, but I think the waste of running a truck over the top of the Sierras and back again, just the air pollution that that truck's going to make is

more than going to make up for my poor little toilet, but I'm faced with that. It's a fact of life.

Swent: Is it because you're an industry?

Dickey: It's not only industry. If I had the same toilet in the house--in other words, if I didn't have a permit for a cesspool or something like that, I would be faced with the same thing.

Swent: What did people in the town of Alleghany do?

Dickey: I hate to tell you. Right now they're breaking the law. My own home happens to have a cesspool setup, but I'm not even sure it would qualify with our modern testing methods. Back in the thirties, when it was put in, or before, I'm sure that it was adequate. I am not sure that it is today. I haven't been called on the carpet; I many never be. But new home hookups are becoming very, very difficult. The perc [percolation] test and the various tests that you have to use are complicated and expensive and as you know, it is not an end-all. It was fine when you had few people and lots of land but now when the reverse is true in an area, a cesspool and leach lines just aren't the best way.

It's just part of the time. Times have changed and I'm all for this cleanup and all. But like so many of our laws, they go from one extreme to the other. We just happened to be caught in a period when they're way out in left field and pretty soon, they'll swing back the other way. Technology will come along and help us with many of these things and take care of many of these things. In the meantime, you can get caught. I have been caught with this cyanide business where I feel that it's not worth pursuing it.

Acting as Spokesman for the Mining Industry

Swent: I think you had said, but not on tape, that you had tangled earlier with the Fish and Game [Department].

Dickey: Well, at the very start of the California water quality negotiations or input phase of the law, Fish and Game at one stage of the game took it upon themselves to collect evidence to use against miners. At the time that this was done, the young men that were sent out to collect the evidence were either poorly instructed or maybe over-zealous because they came on the property without announcing their presence. They came barging into the mill building proper. They started taking samples out of the classifier, things like that, and my mill men asked them what they

thought they were doing. They informed the mill men that it was none of their business.

I wasn't there at the time they made this sort of a sweep. I heard about it and I received a letter from Fish and Game telling me all the terrible things that I had done. I felt at the time that the terrible things I was doing didn't hold a match to the abuses and the gathering of evidence that they had done. So I wrote a nasty letter to them, to Sacramento, expressing my views and telling them that any evidence that they had taken was absolutely faulty and illegal. If they wanted to talk about it I was very willing to talk, but I refused to be brow-beaten by these kids. Well, there was a gentleman, the head of the state Natural Resources Department, a gentleman by the name of Livermore. Mr. Livermore didn't want to hear Dickey shaking his fist at the Fish and Game and vice versa.

Swent: Which Livermore was this?

Dickey: Put Livermore. Norman I think is his name. I don't know what the true name is, but his name is Put. He's called Put. He sent one of his men up. Fish and Game had made statements such as that the miners had killed all the fish in Kanaka Creek and the miners had done this and the miners had done that. Rather than addressing my evidence-gathering complaints, he thought that maybe he could unwind this thing by finding out if these statements of damage to the ecology were true. He sent one of his people up; I can't think of the man's name [Jim Evans], it will come to me, a very nice chap. He showed up with a young son, a very young son, and his mother-in-law, and announced that he was going fishing. He told me that Mr. Livermore had sent him up there and he said, "I'm going to figure out once and for all if you miners have really ruined this river as you're supposed to have."

Well, I was very worried when I met him. I didn't know his name. I didn't know who he was and I saw the young son promptly go down to the stream and start throwing rocks into the river. Our fish are very wary, they're all native fish, and I thought that this dumb kid is going to make it impossible to fish this stream anyway and I couldn't tell the father that. The mother-in-law was kind of sitting around paying no attention to the kid, and the kid finally got tired of playing in the river, came back and sat down. The mother-in-law walked out and walked across one of our bridges. When she got out on the bridge, she gradually sort of peered over the edge. Then I saw her peer over the other side and then she walked on her way and came back.

The gentleman said, "Think there are any fish in there, Mom?"

She said, "Yes, there are."

He said, "This is the middle of the day. Let's have a little picnic lunch."

So he spread a blanket, took out some sandwiches and a bottle of wine, and I had lunch with him there. A thoroughly nice man. Anyway, say two o'clock in the afternoon, he opened up the back end of his car and when I saw his fishing gear, I realized that they hadn't sent a dummy up there. They had sent a pro fisherman because he had every kind of fly fishing gear that you could want. He put it all on, strapped it on, climbed into his waders and away he went.

He was back within about twenty minutes, I would say, with a nice mess of fish. He carefully put them in the creel, put grass in with them and loaded it all up and went back to Sacramento. About a week later, I got a call from Fish and Game. Would I come down? They would like to talk to me. The outcome was that all the evidence that had been used against me was summarily torn up in my presence and I was offered my pound of flesh.

I said, "Now I really would be very happy to cooperate with you people, which I would have been before, but my point was, and you've gotten it by now, that we're all in this together. If we're trying to come up with some sort of a law, the way you did it was not right, because there is no law that says I cannot put tailings in Kanaka Creek. It has been done since year one. It is accepted now. I am breaking no law. So to try to go to the public and say, 'Oh, look. We have a gill-cut fish.' Well, I have seen that same fish. It's come from every single stream in the state of California." They had a standard fish that was brought out at all the hearings; at least it seemed like the same fish. I said, "This doesn't get it. We're beyond that stage. If we are going to come up with a water quality law, we should all contribute and we shouldn't keep playing games."

Then I sort of became a spokesman for the mining industry, and I would go to these meetings that were held all over the state. I would get up and give the miners' views. Then Fish and Game would get up, Sierra Club would get up, and all the various groups. They were, I will say from not necessarily my experiences, but as the discussion grew, the civil manners of the participants also improved a great deal. At the end, probably a pretty fair law emerged. But the start of it was just chaotic because it was just an attempt to gain press coverage for all these bad fellows with the black hats. I refused to be classified like that.

Swent: What was the point of the fish?

Dickey: Gill-cutting of fish is one of the ways that you can see the fine silica sludge, or tailings, from the mills. They can destroy or cut the lower gill. It is evidence that there is solid waste in the stream. Other things you might notice, like on the rainbow trout, the coloring of the trout will change a little bit. The environment is different. Our streams were gray for a hundred years with the discharge of all the mills. Literally hundreds of mills. The Newmont mills, Grass Valley, all discharged right into the waterways until this law was passed. Now you don't have this solid waste discharge. But I got caught up in the first part of it and I chose to go in having my name cleared originally by Mr. Livermore and by Fish and Game themselves. Then I felt that I could play a part. I had credibility.

Swent: Were you speaking on behalf of a group?

Dickey: No. I spoke as an individual. But I wound up by being more or less the token miner, we'll say, because if a discussion were held, I would be the one to be shot at, more or less. I was sort of the--not the straw man; I hate to use that term--I was the figurehead or something that was standing there that you could take a shot at as far as the mining end of it went.

Then there were people from all walks of life, farmers and fisherman and Sierra Club, everything. I shouldn't use the Sierra Club name as I have, having been a member way back when, and as I have mentioned, practically a founding member--my father. But of course we did find ourselves on opposite sides of the table and I chose to walk my side.

I was reminded during this evidence too, a representative, I can't remember whether it was Sierra Club or who it was, but somebody stood up and asked me what my qualifications were at one point of putting water in a bottle, of pouring water from Kanaka Creek into a bottle for testing, in other words to take to a lab. That was where I became very aware of the necessity of covering yourself, covering with your own evidence and being sure that that evidence or chemistry or whatever you want to call it is completely without any chance of fault. In other words, maybe I'm not qualified to pour water in a bottle. I am the owner of the property. At the time I would be highly suspect. I learned early on that you had better have a credible water lab working with you and all the various peoples that you needed to help you. Again, it just compounds the daily problems of a small operator today.

Swent: Makes it very costly.

Dickey: Makes it very costly, and that's the other thing. The number of people involved is obviously just cost added to cost. It has to be done correctly. There's just no way of doing it part way. It has to be evidence that is just irrefutable. The chain of evidence has to be just as accurate as any court of law, because that's where this might wind up.

Swent: Do they come around and inspect you periodically?

Dickey: About quarterly they come by. Then Water Quality does a serious inspection once a year. They pretty well go over the property. They have people working with them. Of course, Fish and Game works for them and there are any number of people that if they saw a problem could either report it or could ask for an inspection or something. But normally a major annual inspection would do it unless there had been a change. Then all the other inspections are your normal MSHA [Mine Safety and Health Administration]/OSHA [Occupational Safety and Health Administration], air quality people. They come wandering around quarterly usually.

Relations with the Mine Safety and Health Administration and the Occupational Safety and Health Administration

Swent: You hadn't mentioned MSHA. Have they been hard on you?

Dickey: No, actually they haven't. MSHA has been quite decent to me. In the past they've more or less held up the property as sort of an example of what can be done. I'm rather proud of that. I've always believed in good housekeeping. This is one thing that they notice immediately. The second thing is that I've had the opinion all my working life that there is nothing that can be made foolproof. The very term foolproof is self-explanatory. There is no way you can safeguard a piece of machinery so that some dummy can't hurt himself with it. It can be a very simple piece of machinery like a hammer. Obviously, if you're going to hit your thumb with a hammer, you're going to do damage.

So I have tried and I have been lucky to be able, with such a small crew, to pick men. I haven't had to take everyone that came down the pike and rustled. I have been able to take top men who were either easily trainable, young men who I know personally growing up in the community that I could take aboard when they were youngsters, teenagers, and train them. Or men that I knew from other companies who would rustle me and then I could put them on. So I've always tried to keep a crew of top people, few people but top in their field. Our accident problems, rates and things

like that are extremely low. We push like any company for production just as hard as the next man, but we do it with as much care as we can. I'm very strong on keeping equipment in top shape, keeping all safety devices up. It's more or less by instinct we do it now. You can do that when you have good men.

Swent: And when you keep on top of it.

Dickey: When you're living with it, yes. That is half of it. When you're in the mine every day, you see where something is falling down. You see if equipment is being let go without proper maintenance. You see if powder magazines are not quite up to snuff. It's easy. You don't do it by having to go through a checklist. I can do it by eyeball just by making a tour in the morning or the afternoon of a shift.

Air quality is something we haven't worried about. OSHA, we've had problems with, but OSHA has had problems with themselves. Cal-OSHA, as opposed to OSHA national, has been difficult because they were sort of given a job to do and then they weren't allowed to do it. Many of their rules are duplicates of some of the MSHA statutes but written differently so that you can't uphold both of them.

Swent: Can you give an example?

Dickey: Oh, there are a couple of electrical codes that vary quite, well, considerably between the two codes. They overlap and they don't overlap in any method that you could please both masters. Things like this get us in trouble. I'm thinking primarily of electric codes. Cal-OSHA has been gone for several years now. When they come back I hope they will get together and if they are going to help enforce, either have MSHA do their bit and have Cal-OSHA do theirs and stay away from each other, or at least get the same book and read from the same book because it makes it quite difficult otherwise.

Swent: To say the least.

Dickey: To say the least. I tangled with Cal-OSHA because they had a young man who insisted that we have a broken-cable brake on our incline shaft. I said that I would be only too happy to put one on. Would they provide me with a design or tell me where I could buy one? Of course, there has never been such an animal. There are many wonderful engineering treatises on how to brake a skip on an incline but none of them work in the real world, and that is because underground, with the moisture and the mud and the grease and the rest of it, all of the dogs and the various devices that are supposed to stop these things just don't work. They used to

refer back to a T-rail that they would have on the back side of a dam and this T-rail would have a clamp or a dog that would clamp down on it if the cable broke. That's fine; that is, if all is clean, washed, sits in the sun and is not in the same environment that we work in.

So anyway, I would argue with them and I finally got them off my back by saying, "You design something and tell me what you want. You show me what you want and I will put it on." Of course, that never came about. We're still discussing a method of doing this. It's quite serious. In a vertical shaft, now, there are devices that work perfectly well in that, that have been tested, tried and true, but incline shafts, pretty difficult now.

But this is just this one particular inspector who was bound and determined that I was going to have that. Then I think I was asked to put a rollover cage on a mucking machine. Again, I thought, "Well, this is just impossible because this thing isn't going to go down the drift and nobody's going to be able to use it. But please design the thing. Give me the blueprints and I'll weld it up." Well, it was never forthcoming so I never had to put a rollover cage so that if it rolled over it couldn't tip on the man. I could never imagine this thing. It was going to be a spherical ball and the mucker was going to be on the middle. So no matter what position it got, upside down, right side up, it couldn't hurt the man.

It just didn't fly. I couldn't imagine it and he couldn't draw it so he went away. I'm grateful, or not grateful, I'm satisfied that we've done a good enough job not to warrant any abuse, or any regulatory problems. We have been written up.

Women in Mining

Dickey: The first write-up I remember, I had a single-piece toilet seat. I'm sorry. And that was unacceptable under the original code. I said, "Well, why is it unacceptable?" I was told that it was fine for men but for women, it was not fine. So I had to have the other style. I thought, "How ridiculous to pay ten dollars for a toilet seat." I had to go out and buy another different toilet seat. The horseshoe shape rather than the circular one. Well, I have the circular ones in every house I've ever lived in, but that was not the code at the time. They charged me ten dollars for that. I only had one roll of toilet paper, I remember, and I was supposed to have two and I said, "Well, you can only use one at a time."

"No, you have to have two, Mr. Dickey." So now I have two. I'm being only partially facetious. At the time, it seemed serious.

Swent: Have you ever had any women want to work in your mine?

Dickey: I've had lady geologists, several geologists, that have worked and I've been very happy to have them, but I don't think I have ever been rustled for a job in the mine other than the job in geology. I have been rustled as geologists. Now in the Mesabi, that's a different thing. Where, as you know, I'm involved in the iron ore mining. There we have a very large percentage of women and we're very, very grateful to have them. Our largest trucks, the 185-ton on up, 200-ton truck--I would say 60 percent of the drivers are women. They are very, very good drivers. I have to put them ahead of the men. I don't know what it is. They can think of other things. They can think of their families and their children and everything, but it doesn't detract from the job they are doing. Whereas a man sort of daydreams a bit and promptly drives off the road, somehow the women have an ability and a very good motor reflex.

And of course there's no brute strength required anymore in driving these big trucks. Everything is power-assisted. One of these girls doesn't stand up to the axle on the truck or the hub on the wheel so it's sort of incongruous seeing them climb into these huge things.

Several years ago, we had an interesting case where one of these trucks had driven over the top of a pickup and the engineer who was in the pickup, or surveyor I should say, was killed. MSHA brought a suit against our company, not for the accident but for not reporting the accident. The little girl who was driving the truck did not know that she had driven across a pickup. She was actually taken--. We went to a hearing, with our lawyers, into a regular court hearing. At the time, our defense stated that they wanted to reenact this erstwhile crime. What they did, they went down to a junkyard and they bought the same size truck and they put it out in the road exactly where this gal had hit it. They put the judge and the jury foreman and the lawyers from both sides in the cab of this truck. Admittedly they were rather squashed in. They blindfolded them and they had the girl come out of the pit with a load of rock. She drove over another truck and they were to tell her when she hit that truck. Of course, we have two things going here: one is she didn't feel the truck; the second thing is that you're blind on one side in these huge trucks. This pickup had been parked on the road where he didn't belong, on the wrong side of the road. It was a mistake on the part of the engineer. It had nothing to do with the lady who was driving the

truck. She was completely blind and could not have possibly avoided it. She was exonerated and all, and still working for the company.

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Swent: So the young lady was completely exonerated.

Dickey: Completely exonerated. It hadn't gone to trial or anything like that, but it was the insurance companies fighting for the liability and who had done what and that this woman had supposedly not told the truth. Of course, that was false. It was proven. Since that day, now there are many more safety devices, TV cameras and all kinds of things, put on these trucks so you can see, but you are literally blind on one side when you are coming out of the pit like that.

This is my only contact with women in the industry; it's been back there on the Mesabi. They do all jobs there, any job. There's no longer any discrimination--or not discrimination; what should I say?--changing in rules, male and female. Now in the old days, we had to have special johns, special cots for a woman to lie down, she was supposed to be allowed half an hour, something like this, twice a day. All of that is gone now and if a woman applies for the job, she's held to the same standards, with the exception of the brute force and orneriness of lifting. That's about where the only limit I can think of now is, on lifting. I'm afraid I'm of the school--. I would hesitate to put a woman into a hazardous position, but I say certainly if they can go over to Arabia and hold down some of the jobs, we shouldn't hold them to anything as simple as blasting or some of the things that we consider a little hazardous. I'm sure that they would feel quite put out if we did say anything, so I wouldn't. But the lifting, that part of it of course, they are protected.

The Penobscot Iron Ore Company Taconite Mines in Minnesota

Swent: Perhaps we should mention the taconite then, since you've brought up Minnesota. You had left your grandfather with the worthless red soil.

Dickey: Great-grandfather had a large family. I can't tell you how many born children; I can tell you that five survived. But I would say to have five survivors, you would have to start with thirteen or more or something like that, at least in those days. The iron ore ran all through the First World War and into the thirties, and

about the mid-thirties or even a little before that, the pits were pretty well depleted. Some of the companies went out of business and sold the land for anything it could be used for. Actually, these pits were pretty ugly at the time. The water table builds up very, very slowly into them so you don't wind up with a nice lake, at least right off the bat.

But the women in the family resented paying taxes on something that was considered useless. But the men in the family had been charged by grandfather that they would not give up land. Being members of the unlanded gentry when they arrived on the cattle boat, this was a very, very serious thing. I assume that great-grandfather on his deathbed said, "You rascals are not going to give up land."

So after the war, in my mother's day, the ladies were asked to cough up taxes for these worthless holes in the ground. They thoroughly resented it.

Swent: First World War?

Dickey: This was the First World War. Between the two. When the lands lay fallow. It was very difficult to hold the family holdings together because the majority of the people wanted out. But the male portion of the family was so afraid of great-grandfather coming back to haunt them or something that they weren't about to turn their back on this.

During that period, the community knew of this taconite, they knew of this funny rock and they knew it contained iron, but 23 percent iron is a long ways from anything you can ship. You have to be up in the 63, -4, -5 percent. There weren't methods available and yet, in the laboratories, work was going on in various universities there in Michigan and Minnesota, all through the area, working with it. Finally, they came up with magnetic methods of treating the taconite ore.

Originally it couldn't be drilled; it was so darned hard. When you use standard drill steel, it just dulled immediately, so they had to come up with flame piercing, you remember, the totally new method of drilling to handle it. Gradually as we went into the Second World War there became a need. There still was a need but this taconite became a viable product.

One of the sort of advantages that came along with taconite --you had to come up with a product other than just a ground dust. So they thought of balling it and making it into pellets. Well, these pellets were very easy to transport, very easy to load, unload, convey, put into the steel plants. So there was more or

less an advantage, just a physical advantage, in using them. They became more and more popular as direct shipping iron and fines and all ceased. We luckily were still in the land position. We made a deal, must have been over twenty years ago.

Swent: You say we. Who's we?

Dickey: We? Well, I'm speaking of my company, the Penobscot Iron Ore Company. Penobscot really more or less grew out of family holdings. It grew out of timbering rights. In other words, the family has been in natural resources forever, and this land was originally land that had been taken up for the first-growth white pine. I think I spoke, when I was speaking of the ancestors, of the old man moving on to the West, but hanging onto this land.

Swent: Some of them have stayed back there.

Dickey: Some of them stayed there at the little town of Eveleth. Some of the logging buildings were left and the school was left. But the younger men moved on with him, here to the West Coast.

But anyway, the taconite then became a viable product and the Ford Motor Company came to us along with Ogilbay-Norton. Ogilbay-Norton really was not an iron producer at the time; they were more in shipping and transportation. They shipped anything and everything they could get their hands on, on the Great Lakes, but they also felt that maybe they should get into iron. They had limestone and they had coal and they had various things they were transporting. They thought, "Maybe if we got into the production of pellets ourselves this would help us and we would make money on transportation as well as in mining."

So they worked a deal with Ford. The initial deal was 15 percent Ogilbay and then 85 percent Ford. We supplied the iron pellets, the taconite pellets, to the Dearborn plant, the Rouge plant, the famous old Rouge plant. We were very lucky. I don't think our iron deposit is the best on the [Iron] Range. I know it isn't. I know that our plant is now old. There have been many newer plants built in the last twenty years. We're having a tough time surviving. There are only six iron ore companies left on the Range now, and I would have to say that probably the two highest priced ones are ours and one other. We are having a hard time competing with USX, US Steel, and some of the other companies that have almost free government land. So their costs, their royalties, are practically nil. But we have survived for twenty years and I have great hopes of going on for the next twenty.

We are a land company. In my position--I'm a general partner, which would, I suppose, correspond to director of the

company--it's my job to keep the participants informed as to what we do. I have the responsibility of leading the company in that if we have any litigation or anything like that, the general partner sticks out, so I have to defend the others. Of course, I have to do all the bookkeeping or see to it that it's done. Any contracts or anything like that, dealings with either current partners or new partners and all, I have to do. I fortunately only have to go back a couple or three times a year. I'm not suited to the winter time on the Mesabi Range. I'm born and raised, I'm afraid, in California. My blood must have thinned out too much. I go back there with everything I own in the world on my back and sit and shiver in the winter time. I see people running around in their shirtsleeves saying, "Isn't it a beautiful day?" It drives me wild.

While I am still with this company I am sure that the day will come when the magnetic taconite will be a thing of the past. Our reserves--we started with 54 million tons in one pit, in the Thunderbird Pit, and we're now down to maybe a third of that or less. So our final days are just over the horizon, even if we do remain competitive. Under that magnetic taconite is non-magnetic taconite. The beds and the amounts are equal to what we have today in the magnetic. We know that this material is susceptible to treatment with flotation, a little more expensive, but can be treated with flotation. A product could be made when the time comes. Fifty years, thirty years from now, we'll be mining that. So I'm still under the demands of my forefathers four or five generations back to hang on to that land. As long as I remain in my position, I will never allow the land to go back or to be sold. It will stay within the company.

Swent: There's been a lot of environmental ruckus about that too.

Dickey: Yes. Part of it's been brought on by--. One of the major companies was dumping directly into the Great Lakes. At first, they didn't feel that the produce had any particular effect whatsoever on the water quality. Then as more studies went on, they realized that possibly it did. It certainly did change the ecosystem, at least where this huge plume of tailings was depositing. These were tens of thousands of tons a day going into the water there at Silver Bay.

The original company went broke just recently. I think Cyprus [Minerals Company] took over the reserve holdings and made a deal with the state to hold them harmless if they went back into business. In other words, all the sins of the original Reserve Company would be forgiven as far as Cyprus was concerned. That's kind of a different way of doing things because normally now the

law says that the land owner is forevermore responsible for his own land.

This is something I worry about, what happened one hundred years ago on the property that I have here in the Sierras. I still have shafts that probably should be cemented up and there are still tailings piles that may or may not qualify for hazardous.

But anyway, when Cyprus went back in, they said, "We will start today and we will do the best we can with the technology we have to eliminate any of these hazards." They're doing it. They are discharging on land, normal tailings ponds. They have dust problems; of course, you have to keep these tailings wet. Then you have a reconstruction project at the end. What do you do when you finally close down? How do you revegetate, recontour the land and all? This becomes a problem. I don't think the problems are any worse on the Range and certainly not as bad as I see in uranium and some of the heavy metal problems we're looking it. And also the acid problems where you have acid drainage. These are far worse than what you are seeing on the Mesabi. But the trouble is on the Mesabi, you're seeing huge volumes, just tremendous. Millions and millions and millions of tons of the stuff and huge holes in the ground. What do you do with a hole in the ground? Well, they make beautiful lakes. Gee, there are some gorgeous lakes some of these pits that have been worked out have been turned into.

Also, it's quite amusing to me that today we're always looking for solid-waste disposal sites. I'm sure that somebody's going to come up with the bright idea, "Well, these pits are there. If we can seal them off from the water table, gunnite them, whatever you want to do, chemically seal them off, put in diaphragms, put in some way of keeping them cut off, it would be a splendid place for hazardous waste." Certainly Detroit isn't that many miles, less than an hour by car. So I'm sure these pits will have a second use later on. But the iron ore still will continue for many, many years to come--various forms of it. The beds extend clean down under the [Great] Lakes. They don't even know where they wind up. We're working the easy part on the service. But these same beds, if they wanted to go underground, could be worked for hundreds of years.

I speak sort of of the love of mining. Well, taconite mining, or iron ore mining, is sort of like sand and gravel. The romance I'm afraid to me is not quite the same as gold. I'm perfectly aware that non-metallics is the place to be. Dealing with volumes of sand or something, that's where the money is. But I could never bring myself to warm really to the--. It's a

splendid business, and I do my job the best I can, but I would much sooner dig for metals than for taconite. That doesn't make sense but what I mean is the sheer volume, the fact that there's never a change, it's like sand almost. It's like moving sand. You're talking about mining methods and how to reduce blasting methods, but the thrill of the find never changes. It's just a dirt-moving proposition rather than the thrill.

Swent: Now there of course you've got technology changing.

Dickey: Yes. That changes daily practically. Back and forth we've gone. We're doing all kinds of different things in drilling now. We were using this flame piercing which I was quite fond of because it lent itself very well to the type of mining or the area in which we were mining. We were mining within a thousand feet of the little town of Eveleth.

Our major problem is the noise pollution, speaking of pollution. In other words, that is what will get us in trouble faster than anything. At one stage of the game, when we were first starting work up there, we set up a laboratory more or less to study all of Mother Nature's sciences to try to figure out how we could blast with a minimum of air-blast. In other words, we tried monitoring wind and barometric pressures and made a meteorological lab to do this. We tried to tie the noise creation together with the elements that were active one day. We couldn't get a correlation.

Then we finally found that we would take a box of powder and when we got ready to blast, or near blasting time, we would set a box of powder off, we'll say in the afternoon, and then we would wait to see how many telephone calls we caught. We found that there was a correlation there. We could tell more by the telephone calls what was going on than we could by looking at all this data that was coming in on the barometers and all. So now we set off test blasts. When there are no complaints to the police or to us, people aren't bothered by the sound, then we set the big blast off. It worked perfectly. The press is aware of exactly what we do and the townspeople are aware. If they feel that the noise for the small blast is not acceptable at that time, we don't blast. We've been operating this way for I don't know how many years now, ten, fifteen years. I'm not sure that this is a scientific improvement but it's the method we use.

Getting back to the drilling, this flame piercing is just a matter of melting your way through rock, actually. You use oxygen and deisel oil and water.

But it's called jet piercing. You have a drill that slowly lowers the rod and it has just a burning tip on it. But you burn yourself down, or you melt your way down through this glassy structure--the taconite--and depending on the speed with which you lower the mast or lower the rod, that gives you the diameter of the hole you are drilling.

So what we do when we get near the bottom--we're using thirty-foot benches now, so when we get to the thirty-foot piece, we want to underdrill. You want to drill lower than your bench is going to be. We will slow the drill down, or we'll slow the mast down, or the column down, which means that you are drilling a much bigger hole. So basically, what you're doing, you're making a coyote hole so you can put the bulk of your explosives low in the hole instead of up in the column. We put a sizeable amount--we'll say 40, 50 percent--very low down in the column and we use a great deal of stemming on top, cuttings, over it. We don't bring the powder column clean up anyplace near the surface. It's way, way deep down, heavily stemmed. When the shots go off, you very seldom see anything more than just a heave. You don't get much of an air-blast. You don't see plumes of dirt and debris in the air. We've gotten completely away from that, so the seismic forces are way underground, or thirty feet underground, and this jet piercing lends itself to that.

Now, many of the companies have gone back to using these down-the-hole hammers. They're faster and we're told that they're cheaper; we know they are cheaper. But you can't do this same type of thing that we are with this coyote-holing business. There is no way you can expand the bottom of the hole. So now we probably will have to go to a rotary method or to the down-the-hole because this other is getting sort of out of date now and all. But it worked for forty years very well. That was an improvement.

Trucks are larger. Explosives are better. Mainly, you have the advantage of size. We were speaking of the Oriental, if I had made changes there. Well, I can't, because I can't take the advantage of size. There just isn't any way to do it. So in an open pit mine, it's the same as you see in Nevada. The ore in Nevada would not be ore if they had to use the trucks of twenty years ago, or ten years ago. In other words, a six-ton or a twenty-ton truck would be completely uneconomical.

Swent: Speaking of Nevada--.

Dickey: Grrreat. [Laughter]

Swent: How has all of this Nevada boom affected you in Alleghany?

Dickey: Well, in some ways it probably has had very little effect on us. Most of the miners that have gone to work in Nevada--and when I say miners, I'm speaking of the underground people--well, they aren't needed in the mines in Nevada, so Nevada has not drawn away from our few good men whom we rely on to go underground. The equipment that we use is completely different from the equipment used in Nevada so we don't have any problem there in getting our equipment or supplies.

We're getting the advantage of the technology from the mills, from the cyanide plants. This is coming back to us; this could help us. Most of the large mines that are just opening up on the Mother Lode are using the carbon-and-pulp or various techniques that were originally tried and used over in Nevada--outgrowth, of course, of the work done in Lead and then taken to several other major underground mines and then taken out into Nevada.

Swent: I think you said at one point that they had all the drills commandeered.

Dickey: This has hurt us. An Australian company that took over our property wanted to use the reverse-circulation drills. They wanted one of the (we'll say) three top drillers to come over to California. When they tried to hire them to come over to do 20,000 feet of drilling, or something like that, they said, "No way. It would make very little sense for us to go there when we're booked solid for years in advance."

That was last year; this year is something else. If we had to do the same thing this year, there wouldn't be a problem in getting the drill over. Later on, we'll probably get into some of the work that was done, but the company that had the Oriental had a great deal of a problem getting a good outfit over. They had one contract with Lang, who was tops in the field. But when they went back to try to get Lang to come back to do a secondary phase two, they were booked for a year or two in advance and they couldn't get them. They accepted a sort of gyppo-driller who wasn't too capable and they got into trouble with him.

So we have that. Nevada has more or less kept that, what should I say, ability to themselves. Reverse-circulation started that. These drills are nothing more than water drills. But they were converted by Lang, being one of the earlier people in the business, into these double-wall stems, tubes, where you could bring the cuttings back to the surface without contaminating the hole. You didn't have to bring them on the outside of the drill rod and contaminate your samples. They are very fast. You're talking about maybe four hundred, five hundred feet of drilling a

day, where I think of one hundred feet with a diamond drill as being spectacular and underground I think of thirty or forty feet as being excellent.

Again, the scale is such that it lowers the cost. But there were hundreds of these drills going into Nevada three, four, five years ago, and every one of them booked solid.

Let's see. What else?

Trying to Sell the Oriental Mine

Swent: Do you want to talk about Australia?

Dickey: Well, we could. I have a very warm spot for the people I dealt with. Maybe I should talk of the forerunners of the Australians. Maybe that would be a better lead into it. Like most mining people, I thought that I would probably continue forever digging holes in the ground. It wasn't until I was in my sixties that I realized that I might have to give it up, hang it up. It should be deep enough. So I started looking for a potential sale. Our property, our district, did not lend itself to a normal type of mining deal because we have never in our lifetime been able to prove any reserves. If you don't have reserves, bankers kind of throw you out of the office and mining companies don't like to talk to you. For very good reasons. When a mining company knocks on your door, they expect to buy your mine with your money, not with their money.

##

Dickey: This is many years ago, almost ten years ago, looking for a small company that might not be driven or led quite as strongly by the accountants and by the necessity to have proven reserves before they could enter into it.

Swent: It's because of the character of your deposit.

Dickey: The character of the deposit is such that we could never--. We have this extremely highgrade ore, or we have nothing. Drilling or any method that we have tried to come up with over the years has never been able to prove up in acceptable fashion what we might have in the mine.

So I had a great deal of interest. People of many companies came and beat on my door. Homestake came up and beat on my door

and looked at all my figures. I can remember what was his name, Art Dresher and Ted Rizzi and some of the people that you know. They all came up there. One of the Homestake geologists, a man by the name of Power? Powers?

Swent: Is that Harold Powers?

Dickey: Harold Powers. In my file I have a report by him saying that the Oriental low-grade deposit should be drilled by Homestake. He recommended it. Mr. Dresher was the chief geologist and he sent for Mr. Rizzi. Mr. Rizzi decided he didn't like our district. He didn't know where they were going to put tailings and he didn't think we would have enough of this low-grade material to warrant it so they thanked me very much and went away.

Well, I can't tell you the number of other companies I dealt with. I know I dealt with twenty of the majors. Every one was a very polite turn-down. But I am a realist and I do know my business and I knew that the average large company either didn't belong in my district or would never come into the district. It would be very anomalous, or against their, what should I say, exploration policies if they did come to visit me.

So I looked at the smaller companies and I landed on one in New Mexico by the name of Ranchers. I met some of the Ranchers people. I met their geologist, Dave Fitch, and I met several of their mining people, most of them, and finally met Maxie and Mrs. Maxie [Maxie Anderson].

Swent: It's Ranchers Development Corporation, isn't it?

Dickey: Yes. Ranchers Development and Exploration Company. They went by the name of Ranchers. Of course, they were originally ranchers, but Maxie was a fascinating character. He wasn't afraid of taking chances. He was very careful; he weighed the opportunities versus the chances he was taking, but when people said, "You can't do something, Maxie," that didn't bother him. Maxie sort of started with a positive approach to things, whereas I find many companies start with a negative one. They try to see how to turn something down. It's easy to turn a property down; it's pretty tough to say "Go" on a property.

Anyway, Maxie was willing to do that. He sent out several teams of men to evaluate the Oriental. They did quite a bit of studying. They had a very sharp geologist by the name of Mike Brady who had just brought in the Escalante Mine for them. Mike was very much up to date on new methods and new trace element studies and all. They put him in charge when they finally signed up, when we signed them up.

I had probably a year, at least a year of negotiations with them. They were very tough. They wanted this and I wanted something else. We went around and around and around, but finally we had a meeting of the mind and they took over the property on a lease-option basis. They went one year, almost a year, eight months we'll say, into the initial work that they were doing. They had planned a three-year study program and there were escalating funds to be expended each year. At the end of the three years, they would make the evaluation. There was very little money to me, but they relieved me of all my costs. We'll say they took care of all taxes and took care of watchmen and all of that equipment. They brought in their own people, took on a couple of my people that they needed, and they were doing just a splendid job. Excellent.

Swent: And you were staying there?

Dickey: I reserved the right to stay on the property and they asked me if they could use me; would I commit myself? I said, "Yes--to a point." And we spelled out in the contract how many days I would give them and if they needed more than that, what my time was worth, et cetera. I asked to be allowed to remain as sort of a, not an overseer, but just as a watchman. My old watchman who had been with me for years and years was kept on, so I felt very comfortable having them on the property because they were very, very fine people.

But as you know Maxie had a penchant for flying balloons. He flew one too many balloons with a Japanese gentleman over in France. They had a miscue or misfiring. What I heard was that the pins that were supposed to release the gondola, all of them fired but one. Of course, the balloon went back up again and then landed. I think they were being blown into Russia or something like that and they had asked for permission to, not go into Russia, but one of the satellite nations. They were denied permission.

It was a hot air balloon, so they didn't have all the control in the world. They tried to come down. They thought they were going into some wires so they started to go back up. Then they tried to land the second time and the second time they figured, "Well, this is it." They shot the bolts on the gondola and one bolt didn't go. It pulled them right back up into the air. It tipped the gondola over and dumped all the heavy gear out. The two of them were left hanging in this thing and they sailed away. The fool thing got up three thousand feet and let go and they and the gondola and everything came down.

That was basically the end of Ranchers because Mrs. Anderson had a very large stock position, thanks to him. Taxes being what they are, she had six months to make up her mind about, one, the date that the taxes were going to be. Was it the date of death or whatever the law is, you remember. And also how was she going to pay the taxes? I believe there was not enough money to pay them directly without the sale of stock. Many companies realized that, and made a rush on Ranchers right after Maxie's death to try to force her to sell her shares, which would have been enough to give them control of Ranchers. The management at the time--I can't remember who it was--John Motica, I think, went in as an interim manager before Lee Erdahl. I don't remember whether it was Motica or Erdahl.

Anyway, one of them fought off a couple of challengers. I think one was FMC who made a run on them, and then somebody else. It just depleted the treasury of Ranchers. They saw that they couldn't remain an entity and they looked for the white knight and they came up with Hecla. Hecla was interested only in one thing and that was Escalante. There were enough reserves left that Hecla saw that as a plum. Also, they saw the non-metallics that Ranchers had built up. They had several very interesting--. I think one was scoria. They were using briquettes for these hibachi and grill things. Then they had clay, all different kinds of clays in Tennessee. Also Hecla wound up by getting hold of the Ranchers people and assets. The people summarily quit with the exception of Erdahl and one other. Kaufman, I think. I think Mr. Kaufman had been head of the non-metallics and I think he went with them.

But the balance said, "No, Hecla and Ranchers are two different entities; we enjoyed the sort of free-swinging responsibilities we had with Maxie." So their people all scattered.

Getting to the Oriental, Hecla went through the list of things that Ranchers was involved in. They said, "Whoops, we don't want to be in the highgrade gold mining business." No sooner did they drop us than they found themselves in the highgrade gold mining business. If it weren't for the gold of Hecla today, I don't think Hecla would be keeping their head above water. Their Republic Mine--it's not similar to the Oriental type; it's a more continuous, non-pockety deposit--but it has kept them going.

That was a real loss to us because I knew these people very well. Dave Fitch, their geologist. Maxie I didn't have that much dealings with, but I enjoyed him. I found him to be quite a character. I enjoyed his intellect. When you said, "Can't,"

Maxie's ears just picked up. I met him at the time they were doing that solvent extraction. Everybody said, "You can't do that for the copper." Building that plant, you know. People were really sort of laughing at him behind his back saying, "He'll--."

Swent: Where was the mine?

Dickey: Where in the world was it? In Arizona some place. He had taken over an old pit that was worked out and was going directly to electroplating, solvent extraction.

Swent: Something like what you had done.

Dickey: Yes. In gold. Similar, and actually, this is where some of this technology came from, going straight to solution rather than plating out. In the old days they used to use tin cans and plate the oxide copper. They would put it in solution with acid and then plate the cans. But this was a direct system and he was one of the forerunners in it.

So Maxie took the Escalante on. Everybody said, "You're not going to mine copper. You're out of silver. You're going to mine water." He said, "Yes." And he went out and sold all the water to the farmers down the canyon. The water paid for itself.

But when they left us, they left us rather in bad straits. But I didn't really want to go back to mining again. I didn't know where to go looking. I was very well tired of dealing with large companies. I just didn't feel that I either had the ability or something to offer. In other words, I didn't think that any large company would come calling or would want to come calling, so I put together a little brochure but I never sent it out. I just sort of sat on it and kept it around.

Then, somehow, I heard about some work that a company was doing, some Australians were doing in Colorado. I thought, "Well, here is a large, large company, and they have the guts to go into a small vein operation, highgrade operation at the Camp Bird Mine in Colorado. These people must have something going for them. Either they don't understand the game or they have a lot of nerve." The Camp Bird Mine is a small mine; I know the district quite well. It's been held by several owners since the days of McLean, the original bonanza-type ore, but it's a mine that has made successes for some companies and paupers out of others. Western had the bravery, maybe, of going in there. It was just at the time that Western Mining was in a sort of bidding race with a Mr. Bond, the famous Mr. Bond. Somehow, both of them seemed to have a great deal of money to spend on exploration. I don't think there was any attempt to outdo each other, and yet I know that in

several properties they wound up bidding. The El Indio was one example; Bond beat out Western.

Anyway, Western had this small vein mine under lease. They were in the Tintic District in Utah. That is a tough, tough district to make any sense out of, and they had the nerve to go in there. They had a property that I know of in Nevada, the Hog Ranch Mine, which was again a mine that had been turned down by many other companies because of various problems they had with clays and all. It was a metallurgical problem as well as a reserve problem.

So I thought, "These people, at least they have guts." I started a correspondence with them and slowly a relationship developed. Very slowly. A gentleman by the name of Bruce Kay [rhyming with sigh] (or "Kay" as we say), who was a leader out of Denver, finally came out to see me and somehow they saw some similarities with some properties that they held in Australia. The serpentinite, ultrabasic rock types that we have and associations that we have they saw were similar. So they brought out their chief geologist, a fellow by the name of Woodall--I think a Stanford graduate if I'm not mistaken--he came up here and he liked it. After one year's negotiation again, we came up with a contract.

Here again, I had a very difficult time getting the contract signed because they wanted this and I wanted something else. To meld the two together was very, very difficult for me. It was only until I got to the point of just exasperation and saying, "I'm going to give up," that they really started listening and we were able to come up with another option. They were not interested in my type of small-vein mining. They were interested in the low-grade ore that they now refer to as the grey ore of Sierras or the grey ore of the Mother Lode. What it is, it's really just low-grade that comes associated with many mines in the Mother Lode. Usually it's in a rock type such as schist or quartzite and the solutions coming up the main vein structures then are able to get out through the porous material and they form a lower grade material surrounding the major veins.

We have an oddity or an anomaly, whatever you want to call it, of granite being a host for these solutions. Granite normally does not appear either porous or prepared in this manner, that solutions can go through it. It's an alteration of albite and other minerals. It's been termed an epicyanide by some. Basically it is just a rock that through preparation was able to absorb these solutions. It does make a lower-grade ore that could be, if large enough, mined today.

So the Australians were looking for this; they were looking for the million-ton-plus, four-million-ounce-plus, class deposit. We had mined maybe thirty to fifty thousand tons of this same material. It's less than a quarter of an ounce. It's about .2 ounces to a quarter of an ounce. That's pretty marginal even today underground, unless it really is a large, large size. They wanted the mine for that reason. They were willing to commit sizeable sums for drilling and surface mapping and geochem and geophysics.

They were there for over a year. They proved that the property did not contain this large elephant that we thought it might. I had very mixed feelings about it but many geologists had told me that there was a very good opportunity for this sizeable low-grade thing. The Australians were interested in that.

But in my dealings with them it was amusing because I had to learn English again. I thoroughly enjoyed their leaders. But the negotiations were difficult. When they came on, they just did a bang-up job. They were a large company; they were used to doing things correctly.

Swent: Didn't they come in with bigger road equipment?

Dickey: Not road equipment but these big drills. We were speaking of this reverse-circulation technique, and they brought that in. At first, they did a land survey. They did an excellent review of all the information I had, all the maps I have. I can't tell you how many odd scraps of maps dating back a hundred-some-odd years.

Swent: Maybe I'm wrong. I had the impression they sort of tore up your place, didn't they?

Dickey: Yes. They tore it up just to get the equipment in. But this is natural. They did it, they tore it up as little as possible. They planned their work very well in advance. These wheels are rubber-tired but they require a road because they are the heaviest thing you're legally allowed to put on the highway. I can't tell you how many hundreds of thousands of pounds they are, but they are massive drills. They come with a large carousel all full of drill steel which is four hundred feet of this five-inch drill steel.

So they had to build roads. They tried to use our roads wherever they could. Their initial drilling program wound up in the middle of winter. They wound up trying to drill in six feet of snow. Just to move the drills required a D-8 Cat. A D-8 Cat on a regular road just tears everything to pieces. The grousers alone will chew up the road in short order. I knew that this

would happen; it had to be done if they were to put through this program. As soon as the drill hole was completed and all, then they went back and they did a good job of roughing out the road after the drill was moved on. Then, at the end they went back and did a thoroughly good job.

There were problems because I am so attuned to the small scale of doing things and the value of the individual, either miner or employee. In their case, coming into this country, they were a little leery of our labor laws and of our insurance laws and some of these liabilities that they probably weren't familiar with. So most of the work that they did, they wanted to do everything on contract. They didn't want anybody in their own employ. In other words, they would hire a chief geologist, but the geologist in turn would hire everybody else, contract.

The first crack out of the box, they had to do a grid for the geochem. Well, we're in a very brushy area, small trees, manzanita, you name it, we have it. It's very hard going to run lines through this area. They wound up with something like 87,000 feet of cut line, and they tried to do this on contract. I wish you could have seen some of the people they sent in. They couldn't have done a day's work if their lives depended on it. They just weren't attuned to working. They wound up by using some leftovers from my crew that actually did the work for them because the contract types out of Nevada just couldn't do it. They just had nothing to show at the end of a day in the way of line-cut.

They hired a young lady who was working on her doctorate on the other end of the Mother Lode, a gal that I knew by the name of Leslie Langfelt. I later found out that she was Paul Snow's wife. Even though I knew her husband, knew of him, and was a member of a group that he heads up in Denver, I didn't know her. She was just a super gal, a cracker-jack geologist. They had her do all the surface geology, but again, under contract. "How much?" "We'll pay so much to do it, but you're not on the payroll as such."

I had very mixed feelings about this method. I think in their case, where they are coming into a completely strange area, it probably makes sense. But I know they don't build loyalty amongst the men, amongst their own people, this way. But they certainly tried. They did, in the short time they were there, they did a great deal of work, and they were unsuccessful. They left a lot of unknowns. They left me wondering about the viability of this drilling method in our country. After evaluating their sampling techniques and the drilling methods and all, I am very dubious that it would help me in my search. I think it lends itself splendidly to no-see-em disseminated gold where particulate size plays no part whatsoever. But in the

Alleghany District where you're apt to run on these highgrade stringers or leads, you could fool yourself very easily. You could salt yourself very easily.

Also the method of taking samples I found very questionable, only because the techniques that we use are quite different. But they left me with an awful lot of unknowns and some beautiful maps, some highgrade vein occurrences that I hadn't known about. And they have made my life miserable because now I think I have to go see what they found. So my retirement now is anything but retirement.

Swent: You have to follow up on that.

Dickey: I have to follow up on that. They intrigued me just enough to know that I can't quit before I have a few more answers. In dealing with them, I must say they were gentlemen; they were capable and competent in what they did. They have had very poor luck in this country. I'm not sure I know the--. Maybe it's just the odds of mining. The money spent and the returns have been very, very modest for them. I feel badly because they are good people. In Australia, certainly, they have shown the way for the types of deposits that they have there. They wouldn't be number two without being very competent. But here they have bent their pick to put it mildly in every venture I think they've been involved in.

So anyway, that probably is the last attempt that I will make at a sale. I just don't have it in me to go to any large company and try to, what should I say, uphold the wonders of our district. I know what they are; I feel very confident mining and working in the area, but I know that a large mining company has no business being there. The alternative is the Vancouver paper chase type of a company and I can't get involved in that. So I have to do my own digging and when I'm through, then I'll turn it back. A lot of it will go back to the government and I'll make a retirement home for my wife and myself maybe. That's a long ways to go though.

Swent: The tape is just about to end so I think I'll have to stop.

Final Typed by: Shannon Page and Carolyn Rice

TAPE GUIDE--Donald Dickey

APPENDICES--Donald Dickey

Donald Dickey hunting in Kenya, 1957.

Bunny Allen

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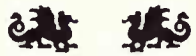
CHAPTER SEVEN



After the little camp in the Masai, the *Mogambo* safari folded up as far as I was concerned. All that remained was to sell all the equipment, and I did not feel like acting as a tout for the auctioneer! Therefore, I made my way to Nairobi and to the offices of the film company in the New Stanley Hotel. As I made my way through the entrance, I passed a very attractive girl on her way out. We looked at one another and, being a friendly soul, I smiled. She must have been friendly too, for she smiled back at me. Before actually turning into the hotel itself, I looked back and saw her getting into a large, open blue Buick. Our eyes met once more and I knew I wanted to know her. However, I would have to wait for several years before I actually would get to know Jeri.

I continued upstairs to see Goldstein and company. I paid my respects to Goldy and he was pleasant, as always. He said, "Thanks a million, Bunny. We couldn't have done it without you. Oh, and by the way, I reckon we'd like you to come over to the States to help publicize the film." He cocked his head on one side. "Can you manage it?"

"Yes, of course. Give me a little notice."

And so it was arranged. Goldy wanted me in New

York, and from thence, all over the States, doing anything from TV shows to lecturing college girls, describing the beauty of East Africa and the merits of *Mogambo*. I was to be away on this jaunt for about one month. As it was likely to coincide with our rainy season, the trip suited me well. And who could tell, it might produce some safari business for me. (It did, among others, my "All-Girl Safari"! But that can wait until later on.)

Just after my interview with Goldy, I had news, bad news, of my old friend and mentor, Jack Soames, who was in the Nairobi Hospital. I immediately went to see him. He was ill, indeed. He had been living down at the coast for some time. (The doctor had told him that the altitude at his farm was too much for him.) Within three days Jack was dead. He had been a most splendid help and friend to me over all the years—always ready with that little bit of help and encouragement at the right time. I was to miss him a great deal.

I crowded in one very interesting safari between the end of *Mogambo* and the take-off to the States.

That was for a very nice young man and his mother, from San Francisco. Donald Dickey's father apparently had planned a safari quite a few years before. He had laid on the guns and had the other equipment all ready and then, sadly, he had died. So Florence Dickey, his widow, had suggested in the fullness of time that the son should do the safari in the father's stead. It was just my good luck that they chose to come out with me. The father had been a well-known naturalist and Florence was fairly clued up as well, especially on birds. This I was to find out very shortly after the start of the safari, and as a result I was made to feel somewhat stupid.

We were proceeding to our campsite beyond Narok. I

could see Florence studying the birds and flowers en route, industriously. When she asked me what one particular bird was, I answered foolishly, "Oh, that's a Cockioli bird." She looked at me quite severely and proceeded to tell me exactly what it was, including its Latin name. I was put very firmly in my place by Florence, and for the rest of the safari I did not cross swords with her again. She was not a girl, she was not a woman—she was a lovely lady. Right from the beginning she acted splendidly and bravely.

The very first night her mettle was very well tested. As we headed for our campsite deep in Masailand, the heavens opened up on us. We could not go forward; we could not go back. We had to camp exactly where we were. The poor wretched camp crew had to erect a tent for Florence, as it still poured with rain. As soon as it was up we got her into it, with a damp tarpaulin on the floor. Then a wet, but still smiling cook attempted to get a fire going under a thick bush with another tarpaulin over it. In ten minutes an Irish stew was on the make. I decided that Donald and I could sleep in the safari car. The rain was still teeming down. I then had another look at Florence. There the dear soul was sitting on her bed, her feet on a wooden box weighted down with rocks, while six inches of water ran through her tent. With all this, she had a big smile on her face and appeared to be enjoying it all!

And that was about the tune of it throughout the safari. Florence took it all as it came—be it good or be it bad! She did no hunting herself. She just came along on most of the hunts as a passenger and a student. She wanted to know the whys and the wherefores of everything that went on. When Donald and I went on a foot-slogging hunt, she stayed in camp getting her diary and nature notes up to date.

For the whole of our stay in the Masailand it was raining on and off, yet we got ourselves comfortably installed in our main camp and the rain really did not incommode us at all.

One day when out hunting for buffalo, we had a most remarkable experience. It was bright and early, and the sun was only a thought in the eastern sky. We were walking through a most beautiful glade, which abound in that part of Masai. The wind was perfect for us to approach a fine-looking herd of buffalo. There was a tailor-made fold in the ground to get us up to within two hundred yards of the herd. From there we wanted to view them to see if there was a suitable bull for Donald.

We poked our noses over the rise, with the rising sun immediately behind us. As luck would have it, the great majority of the buffalo were grazing away from us and so there was a broad expanse of backsides to gladden our gaze. We crouched down in the shadows of the reverse slope to study the buff. Donald had handed his rifle to Kikunyu and had his movie camera in his hand.

By now several of the herd were looking in our direction, but with the rising sun smack in their eyes and ourselves deep in the shadows, they were clearly puzzled. There followed a snort or two, and more and more heads raised up. In the meantime, Donald's camera was doing its best to imitate a skylark! One after another, the buffalo threw their heads about, snorted, and took a few steps in our direction. They were gradually forming into a semi-circle. It was a herd of about two hundred strong that now faced us, looking magnificent—heads in the air, tails swishing and feet stamping to the accompaniment of continual snorts and bellows.

We were keeping absolutely quiet, except for the skylarking camera, and our movements were nil. The buffalo herd slowly moved up on us, with the occasional one running out ahead, sniffing the air and then returning to the ranks.

The whole performance was grand, albeit a little frightening. However, Donald ground away on his camera showing no fear at all, so what could I do other than be brave too?

I noticed that at this stage, Donald had been able to recharge his camera. This he did like a magician, with barely a movement. His whole face was lit up in a marvelous smile. He wanted to shoot no buffalo that day! In fact, on looking back, I think that Donald Dickey was the first man I ever took out on safari who honestly preferred taking pictures to hunting to kill and get a trophy. Mark you, we had some wonderful, exciting hunts together, which he obviously enjoyed immensely. Yet I'll wager that in the final accounting, he valued the pictures he took far more than the trophies on the wall!

However, getting back to the arc of black buffalo gradually encroaching upon our crouching positions—they were now a bare fifty yards away. It was a very remarkable sight. The sun was higher in the heavens and we were becoming more and more visible. Finally, I could stand the suspense no longer and slowly rose to my feet. Then a considerable portion of "all hell" let loose. If ever there was a buffalo cacophony, well, here it was. As the great animals turned and fled, so also did the pounding of their hooves accompany them! Then, the mooing of the calves was left behind in the mad scamper.

After covering about three hundred yards, the herd

pulled up, and while the cows milled around in the background, gathering up their calves, so did a dozen or more large bulls come out to face us, with heads held high. It was the sight of a long lifetime!

Donald turned to me. "Bunny, that was worth the whole trip...Wonderful!"

I nodded my head in agreement. He certainly appreciated what he had witnessed, but of course he did not realize *how* privileged he had been. Ever since that buffalo scene happened, I have been looking for a repeat performance, without success. On one or two occasions I have seen buffalo shaping up to do the same sort of thing, but never have gotten a repeat of the complete act.

Donald could hardly wait to get back to camp to tell his mother all about it. Her remark was, "How I wish Mr. Dickey had been here to see it."

I truly believe that dear Florence Dickey was in a nice little world of her own on this safari—a world of make-believe. She was out with her late husband, Mr. Dickey. It was never "my husband" or "Donald's father" or "Donald Senior" but always "Mr. Dickey." She was a dear, sweet, yet somewhat austere woman—tall, stately and handsome.

I have seen her twice in San Francisco since she was on safari with her son. She was still as admirable as ever.

Now Donald, having had this fabulous experience with the buffalo, decided he was not keen to shoot one at all. However, during the course of the trip into the Northern Frontier, I persuaded him to take a proud-looking bull. I think we were all pleased to pull out of the wet Masailand and head for drier climes.

EAST AFRICAN PROFESSIONAL HUNTERS' ASSOCIATION

P. O. Box 2278
Phone 23285
Telegrams: "CAMPFIRES" NAIROBI

Hardinge Street
NAIROBI
Kenya Colony

17th May, 1957

PH/HAM.

Donald R. Dicky Esq.,
840, Powell ,
San Francisco,
California.

Dear Mr Dicky,

I now have very much pleasure in advising you that at the last meeting of the Committee of the East African Professional Hunters' Association you were elected to Honorary Associate Membership.

I was very pleased that Bunny Allen brought you into the office to see me, and I must add that to have met you was a delight as it is far more fun writing to someone I have spoken to. The new office is shaping slowly and since you saw the Lion Book I have gained a few more photographs. I think that it would be interesting also to have yet a further book containing photographs of Honorary Associate Members and to this end if you would care to let me have a photograph of yourself on Safari I shall be pleased to set it in the book as the first in the book.

You will be hearing from me from time to time as and when I issue the Newsletters.

I trust you enjoyed your return trip to the States.

Yours sincerely,

John Higgins.
Secretary

N. B. — IT IS ABSOLUTELY ESSENTIAL TO INCLUDE THE POST BOX NO. 2278 IN THE ADDRESS.

Donald Dickey, sports car racer, 1959.

SPORTS and IMPORTS

By DON V. FRENCH
Assistant Tribune Auto Editor

Don Dickey, Porsche Carrera driver extraordinary, was California's undisputed sports car "king" during the 1958 racing season.

Known as "the tall, quiet man," Don whipped all southern competition and by so doing won Cal Club's "Top Driver of the Year" award. Just a week ago at the Racing Drivers Club awards dinner, Don received the northern area's "top driver" award after amassing some 3,300 championship points —400 more than his closest competitor.

Don plans to race in Europe as well as in the U.S. this season and we wish him well, for he's a real competitor and a fine sportsman—a combination hard to find.

Recipients of other class awards made at the dinner include: Fred Knoop, Rod Carveth, Sam Weiss, Eldon Beagle, John Miller, Bill Wood, Cloyd Gray, Andy Nielson, Brett Morehouse, Chick Leson, Glen St. Louis, Steve Froines and, in the women's division, Charlotte Duncan.

The Racing Drivers Club plans 12 practice sessions (today's the first one) at Vaca Valley, plus a few club racing events this season.

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INDEX--Donald Dickey

Eleanor Herz Swent

Born in Lead, South Dakota, where her father became chief metallurgist for the Homestake Mining Company. Her mother was a high school geology teacher before marriage.

Attended schools in Lead, South Dakota, Dana Hall School, and Wellesley College, Massachusetts. Phi Beta Kappa. M.A. in English, University of Denver. Assistant to the President, Elmira College, New York. Married to Langan Waterman Swent, mining engineer.

Since marriage has lived in Tayoltita, Durango, Mexico; Lead, South Dakota; Grants, New Mexico; Piedmont, California.

Teacher of English as a Second Language to adults in the Oakland, California public schools. Author of an independent oral history project, Newcomers to the East Bay, interviews with Asian refugees and immigrants. Oral historian for the Oakland Neighborhood History Project.

Interviewer, Regional Oral History Office since 1985, specializing in mining history.