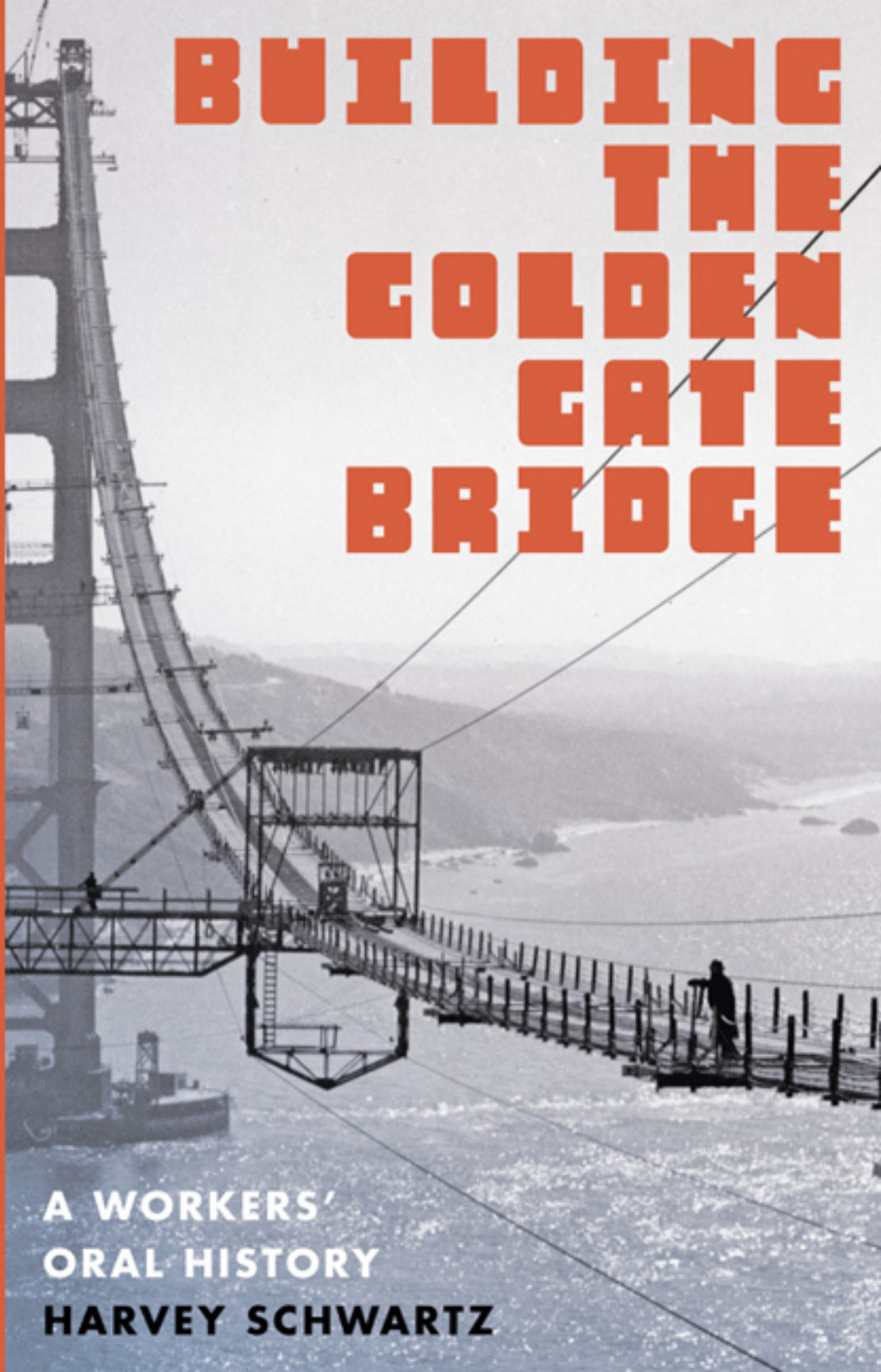
BUILDING THE GOLDEN GATE BRIDGE



A WORKERS' ORAL HISTORY

HARVEY SCHWARTZ

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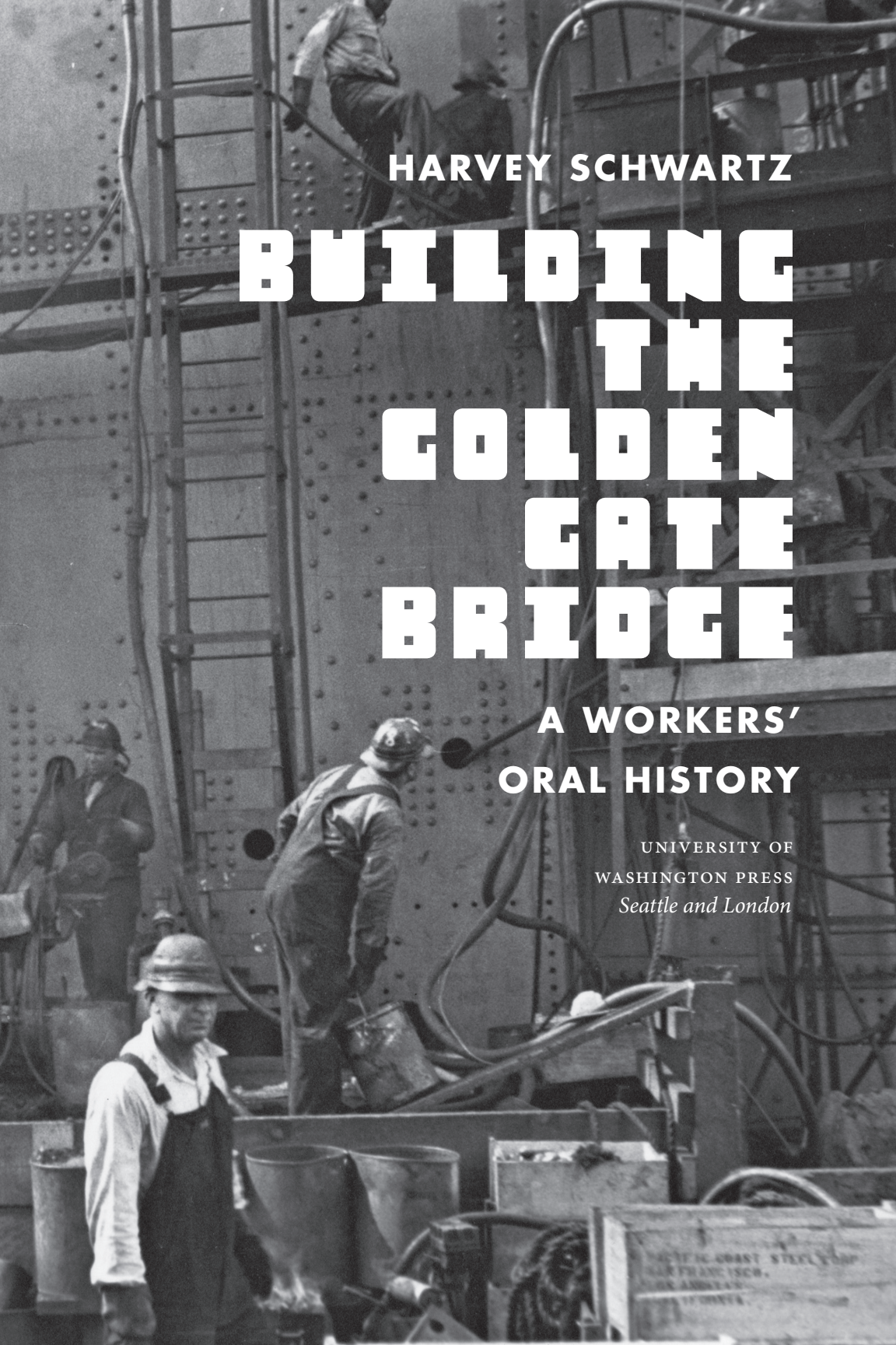

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FRONTISPIECE: Heaters and riveters at work on the Golden Gate Bridge (detail). Copyright Golden Gate Bridge, Highway, and Transportation District.

In memory of the eleven and others now gone,
and for M, D, and K

CONTENTS

BUILDING THE GOLDEN GATE BRIDGE

INTRODUCTION

I never met Joseph Strauss, the chief engineer, but I saw him around a lot of times. I never shook hands with him or nothing. I was out there working. We were busy. We couldn't leave and go shake hands with him. That was for the upper man. See, all the big shots were the ones that were doing all the hand-shaking. In fact, they should of come out and hand-shaked us. We were the ones doing the work.

AL ZAMPA

In 1936 Al Zampa, a thirty-one-year-old ironworker with a decade of bridge building behind him, landed a job on the Golden Gate Bridge construction project—an ambitious plan to span the mile-wide Golden Gate strait and connect San Francisco directly to Marin County and California's vast Redwood Empire to the north. Zampa considered himself lucky to find employment in the middle of the Great Depression, even though he knew full well the risks, mettle, and special savvy that were demanded in work as a high-steel "bridge man." But in October of that year his luck ran out. Zampa fell more than forty feet from one end of the partially completed bridge and broke his back in several places. Miraculously, he survived—and recovered. After a few years of light work, Zampa actually resumed his career as a high-steel bridge builder, an "ace" in the ironworkers' lingo. He was still performing that work when he retired in 1970. Zampa's return from the 1936 accident, his astonishing resilience, and his long career became legendary among construction workers.

This book is an oral history of Golden Gate Bridge ironworkers like Zampa, as well as equally dauntless construction people from other trades, who faced constant challenges between 1933 and 1937 to build one of the iconic structures of the United States. Their stories are not just about labor history—though most of the interviewees talk about unions and Depression-era politics—but also about the work itself, narrated sometimes in rather technical detail and often with vivid recollections of the physical conditions, small pleasures, hardships, and gruesome accidents of construction jobs on the Golden Gate Bridge. It is a deep description of working-class life and culture in a bygone era, told by a group of hardscrabble survivors of the Depression—former cowboys, "gandy dancers" (railroad workers), newsboys, fry cooks, loggers, and others—many of whom quit school and entered the working world when they were barely teenagers, equipped only with their pluck, adaptive instincts, strong values, sense of humor, and oversize fear of a "little bitty needle" (according to the two nurses who treated injured Golden Gate Bridge construction workers at St. Mary's Hospital in San Francisco).

On completion of any large undertaking like the Golden Gate Bridge, the "movers and shakers"—politicians, engineers, industry leaders—usually garner most of the attention and credit for the achievement. To be sure, newspapers briefly lionized Al Zampa in his time, and authors have written about some of the other workers quoted in this book. Still, the story of all great entrepreneurial enterprises demands the balance of full narratives by those who performed—and who continue to perform—the work. Speaking at the opening of the StoryCorps oral history booth in New York's Grand Central Terminal, the oral historian Studs Terkel proclaimed: "We're about to celebrate . . . the lives of the uncelebrated, of the working men and women of this country from the year one, who have made all the wheels go around. We're at the Grand Central Station now. We know there's an architect, but who hung the iron? Who were the brick masons? Who swept the floors? Who kept the trains going? These are the noncelebrated people. . . . They are the ones who have built this country."[1]

In this volume some of the workers who "hung the iron" and did other crucial jobs on the Golden Gate Bridge occupy center stage. Based predominantly on interviews I conducted with surviving bridge workers in 1987 for the fiftieth anniversary of the official opening of the span, the

book presents the speakers' full stories to the public, many for the first time, more than seventy-five years after the completion of construction. Of the fourteen individuals represented, nine were bridge workers in the 1930s, a handful of survivors from an army originally numbering in the hundreds yet representing a variety of trades and exemplifying what historians generally know about the world of the American worker in the Depression. Rounding out their narratives are the testimonies of four women and one man whose life stories intersect with the bridge's history.

The Further Reading section describes the best books about the construction of "the Gate," or "the Gate Bridge," as many 1930s bridge workers called it. Most sources focus on the celebrity engineers, architects, and designers; the technological innovations and achievements; the preconstruction politics; and the exceptional beauty of what the California historian Kevin Starr pronounced "America's greatest bridge." A few mention the workers and their hardships. At least three volumes, published around the fiftieth anniversary of the bridge, give serious attention to the span's construction personnel.[2] But none of the major narratives consistently trains the spotlight on the workers and their lives beyond their daily labor.[3] This book lets the ones doing the work tell their life stories in depth and in their own words.

Who were these people? Where did they come from? What were their backgrounds? Not surprisingly, several bridge workers profiled in this book were children of the country's new immigrants, the many recently minted Americans who swelled the ranks of the U.S. labor force between 1880 and 1914. This flood of immigrants peaked between 1905 and 1914, when more than a million people arrived in each of six major waves. Thousands came from Russia, Poland, Austria-Hungary, the Balkans, and Italy. After 1914, the last of those peak years, World War I and subsequent changes in American immigration policy reduced the numbers coming to the United States for many decades. In 1914, however, nearly a million and a quarter people immigrated to the United States, a scant 13 percent from northern and western Europe and approximately 73 percent from southern and eastern European countries.[4] Thousands of these immigrants and their children became workers in America's manufacturing plants and heavy construction industries. Their immigrant origins significantly defined who they were and how they viewed their world.

Beyond their status as the children of new Americans, what did bridge builders say about their working conditions and the mid-1930s revitalization of unionism in the construction trades? What was work actually like on the bridge, in a climate that was often cold, wet, and windy? How did builders adapt their gear to survive the day safely and with as little discomfort as possible? How did they cope with the tragic accidents they describe here in harrowing detail? As members of the working class, did they view their tasks and the Golden Gate Bridge project differently from the way politicians, regional boosters, and the general public did? How, too, did they evaluate the wider politics and economics of their time? What did they think of the worker-friendly New Deal and the watershed union events of their day, such as the West Coast maritime and San Francisco general strikes of 1934?[5] Finally, what happened to them after the Golden Gate Bridge was finished? How did they reflect on their roles in the building of that world-famous landmark?

Oral history answers such questions with a vividness and drama rarely matched in traditional historical accounts, as exemplified by Evan "Slim" Lambert's tale of surviving a near-death ordeal. These first-person accounts offer us rare insights into the experience of workers who persevered through danger and hardship to build a bridge that became the internationally recognized symbol of San Francisco and all of Northern California.

The idea for this book grew out of a project undertaken in 1986–87 by Lynn A. Bonfield, founding director of the Labor Archives and Research Center (LARC) at San Francisco State University. Bonfield was at the time planning a celebration of the bridge's fiftieth birthday. She secured a grant from the California Council for the Humanities and hired me to interview veteran bridge workers while she and her staff collected historical photographs and other graphics. When the anniversary came in spring 1987, Bonfield staged a highly successful public event that featured speeches by union leaders, politicians, academics, and bridge workers; excerpts from my interviews; pictures; and a display of 1930s worker equipment.[6] I recognized even then the raw materials for a fascinating volume of oral history, even though I was unable to turn to the project until many years later.

Professional oral historians customarily define the interviews I intended to conduct as "full life histories," long the standard in the field.

Full life histories probe a person's recollections from early life through retirement. Most of the individuals quoted in this book sat for full life narratives. When I started the project in 1987, I had just finished a six-year research job that included interviews with 140 members of the International Longshore and Warehouse Union for a National Endowment for the Humanities–funded oral history project cosponsored by the ILWU and the Institute for the Study of Social Change at the University of California, Berkeley. Although I was originally trained in traditional document- and archive-based research at the University of California, Davis, by the labor historian David Brody, I had thus acquired substantial interview experience and had pored over the scholarly literature on oral history. Bonfield, herself an accomplished oral historian, also provided invaluable advice about interviewing priorities and questions on the bridge project.

The construction workers who sat for recordings, listed here with their Golden Gate Bridge jobs, included Fred Divita, a paint scraper and field engineer; John Noren, an elevator builder; Glenn McIntyre, Al Zampa, Walter Vestnys, and Joyce "Big J" Harris, ironworkers; John Urban, a cable spinner, which was a type of ironworker; Fred Brusati, an electrician; Martin Adams, a laborer; Evan C. "Slim" Lambert, a labor foreman; and Bert Vestnys, a truck driver. I also interviewed Alvina McIntyre, Glenn McIntyre's wife, as well as Sister Mary Zita Felciano and Patricia DeWeese, two nurses who had cared for seriously injured bridge men in the 1930s.

The roles of women have been largely omitted from histories of the bridge.[7] I have tried to add to the record. The reminiscences of the four women quoted in this volume include those of the two nurses; Glenn McIntyre's wife, Alvina; and Joyce Harris, an African American ironworker who performed maintenance on the bridge in the late 1990s and early 2000s.[8] Although no women builders and almost no African American men worked on the bridge's original construction, the crews required for ongoing maintenance have achieved a measure of diversity.[9] Thus Harris's recollections help to update the story.[10]

Except for two individuals, I interviewed all the people quoted in this book for the 1987 LARC project. The late Isabelle Maynard recorded the interview with Al Zampa in 1986. I interviewed Joyce Harris in 2008 for Jo Kreiter, founder and choreographer of Flyaway Productions, who was

preparing a dance program in celebration of post-1960s women bridge workers. All interviews represented here were originally recorded on analog tape cassettes (now digitized by LARC) and are on permanent deposit at LARC in San Francisco, along with transcriptions of the recording sessions, which range from thirty to a hundred pages each. Several sessions were significantly longer than others because some interviewees spoke in great depth. Twelve of the interviews were full life; two were more limited in scope, owing to circumstances surrounding the tape sessions, but still added unique and valuable information.

Preparing recorded material for a book of oral histories always requires decisions about the extent of permissible editorial changes. Verbatim transcriptions of interviews are invariably too rambling and roughshod for unedited publication. I have thus made some adjustments in the transcripts, but always within strict guidelines. To emphasize the force and drama of the words of the quoted workers, I have eliminated my own questions and comments. I have also excised redundant and extraneous material, such as hesitations and irrelevant pleasantries. At times I have rearranged material or combined repeated accounts by the same person to improve continuity and clarity. To assess the accuracy of interviewees' memories before using material in this book, I compared several oral descriptions of the same events and consulted the existing written record. Only when absolutely necessary to avoid confusion have I added or corrected a name or date or inserted a small transitional detail. At all times, I have retained my subjects' style of speech, tone, and meaning in the knowledge that these give oral history its authenticity and credibility.

My goal has been to follow the advice of oral history authorities such as Sherna Berger Gluck and Donald A. Ritchie. "In editing," Gluck wrote about her own pathbreaking work in 1988, "care was taken to preserve each individual's speaking style and syntax. False starts and repetitions were removed—unless they revealed something about the interviewee or represented her speech pattern. Words or phrases were added only when necessary for clarity." Later Gluck added, "Although I tried to preserve the narrator's thought process, passages relating to the same topic were often drawn together from different places in the interview."[11] Writing seven years after Gluck, Ritchie—long held to be one of the leading arbiters of oral history methodology—observed, "Editing and rearrang-

ing interviews for clarification and cutting away tangential material are appropriate so long as the original meaning is retained."[12] These are the standards I have adhered to.

▪ ▪ ▪

The idea of bridging the Bay to connect San Francisco and the counties to the north dates back to the nineteenth century. Joshua Norton, an eccentric San Franciscan and self-proclaimed "Emperor of the United States and Protector of Mexico," proposed such a project in 1869. "Emperor" Norton's suggestion did not stimulate serious action, but fifty years later San Francisco City Engineer Michael M. O'Shaughnessy initiated what would become the successful effort to build a bridge. About 1916 O'Shaughnessy, regionally known for championing construction of the dam in the Hetch Hetchy valley of Yosemite National Park to supply water to San Francisco, entered into conversations with Joseph B. Strauss, already a bridge engineer of national standing, about the feasibility of spanning the Golden Gate.

In the early 1920s, O'Shaughnessy and Strauss publicly cosponsored the idea of building a bridge after a design by Strauss that would have combined cantilever and suspension styles.[13] Many viewed this hybrid concept as unprepossessing, even ugly, but Strauss promoted the bridge idea vigorously. As San Francisco Bay ferryboat traffic became increasingly congested in the 1920s, owing to growing reliance on automobile transportation, Strauss attracted a following despite the military's doubts about the project and the opposition of the ferry companies.

The War Department, as it was then known, had the authority to block a bridge project that might interfere with military priorities. But after much hesitation, lengthy debate, and hearings, the military finally issued a building permit in 1924. The ferry companies, under the leadership of Southern Pacific Railroad (which owned a subsidiary ferry company), continued to fight the project in an effort to retain control of all transportation revenues. Local anti-bridge litigation also delayed progress until late 1928, when the California State Legislature finally created a Golden Gate Bridge and Highway District to oversee the span's design and construction.

The new Bridge District comprised the six counties that supported its founding, including San Francisco and, to the north, Marin, Sonoma,

Del Norte, and parts of Mendocino and Napa counties. In 1929 Strauss became the project's chief engineer. The following year, district residents voted to approve the financing of the bridge's construction through a $35 million bond measure. Unfortunately, the Depression had seriously undermined the bond market, and the Bridge District found few buyers for its bonds until A. P. Giannini of the Bank of America saved the threatened project by having his institution purchase a huge allotment.

The nearby mid-1930s Bay Bridge building project connecting San Francisco to Oakland benefited from much federal support. In contrast, the Golden Gate Bridge was completed without state or federal funding. The only federal money spent in connection with the Golden Gate project was for a New Deal Works Progress Administration (WPA) approach road at Sausalito in Marin County on the north side of the strait.

Many construction people who labored on the Golden Gate also helped build the Bay Bridge because work on the two structures was nearly concurrent. The Bay Bridge went up between May 1933 and November 1936. (The eastern segment of the Bay Bridge was replaced in 2013 by a new span designed to be more earthquake-resistant than the original crossing, but when workers in these interviews refer to the Bay Bridge, they are talking about the one finished in 1936.) An assortment of local and national contracting firms built the Golden Gate Bridge in stages between January 5, 1933, and May 27, 1937.[14]

Sometime before construction of the Golden Gate Bridge began, the graceful all-suspension concept that made the structure world famous replaced Strauss's ungainly design for a hybrid cantilever-suspension bridge. The exact moment of this decision is unclear. Nonetheless, Leon Moisseiff, a suspension-bridge expert engaged with others on a consulting panel set up by the new Bridge District, advocated strongly for the change.

The district panel consultant Charles A. Ellis, a former professor of engineering at the University of Illinois and a master of mathematical bridge design, was responsible for the complex calculations that made possible the 1.7-mile structure, which reigned for twenty-seven years as the longest single-span suspension bridge in the world. As an employee of Strauss's Chicago-based firm, Ellis also artfully designed the bridge's classical arch above Fort Point, installed to preserve that historically important pre–Civil War fortification, which today still stands on the

San Francisco shoreline underneath the span's southern end. Ellis never received the public credit he deserved for his role in the bridge's design and engineering success, largely because of disagreements he had with Strauss, who fired him from his firm in December 1931. Shortly before construction began, Strauss hired Russell Cone, a former student of Ellis's and himself an accomplished suspension-bridge engineer, as the project supervisor in charge of all work crews. For years Strauss got the credit for Ellis's calculations, although that honor sometimes gravitated to Clifford Paine, Strauss's second in command, who frequently assumed control in the chief engineer's absence.[15]

When completed, the great bridge would rise 220 feet above the water at midspan. Two soaring 746-foot steel towers with art deco lines designed by Irving F. Morrow, a Northern California architect and illustrator, would support its suspension system. Morrow also contributed to the choice of the bridge's ultimate color, an orange-vermilion called international orange, which added to the structure's beauty and harmonized with the earthy tones of the surrounding hills, opening dramatically to the sea. Fortunately, international orange won out over the urging of military leaders that the bridge should be painted with horizontal stripes for visibility—the navy wanted black and yellow stripes, while the army Air Corps favored orange and white. Curiously, the striking visual appeal of the bridge's red lead-based primer paint inspired the final color.

The building of the two massive towers progressed at quite different paces. The Marin tower to the north rose rather smoothly and quickly because it was set near the land's edge. Workers utilized a large cofferdam filled with tons of concrete to make a pier for the north tower, completed by mid-1933.[16] A little more than a year later, ironworkers finished erecting the Marin tower itself.

The San Francisco tower to the south, though, was situated more than a thousand feet offshore in dangerous tidal water, and work progressed more slowly there than on the north side. The south-side tower was to be constructed on a foundation anchored in the ocean by a huge caisson floated into place, sunk, and then filled with concrete to become part of the tower's pier.[17] Deep-sea divers entering the water from a barge searched the sea floor for places where wells could be dynamited to secure the foundation pier in bedrock. They worked between powerful tides

in churning seas that rendered them almost blind because of sediment stirred up by the ocean's constant movement.

The floating caisson was towed into place successfully. Then bad luck intruded when in October 1934 a furious storm ruined the caisson beyond repair. Strauss had the caisson towed out to sea and sunk there. To replace it, workers enclosed a curved fender consisting of big concrete boxes that had been erected to protect the caisson, pumped the water out of the fender, filled it with tons of cement, and converted it into a foundation pier.

Construction of the south tower was also slowed by accidents and storms that repeatedly damaged an access trestle extending far out into the strait from the south shore. Workers had to rebuild substantial sections of it several times. Despite the many setbacks, the San Francisco–side foundation was finally done in January 1935. Six months later, ironworkers completed the San Francisco tower. During the summer of 1935, workers installed catwalks, or footpaths for access to the towers, so that cable spinning could begin.

The spinning of thousands of thin, exceedingly strong wires that would be compacted into the bridge's two giant main cables concluded in spring 1936. The cables passed over large saddles at the tops of the two towers. Huge eyebars sunk into previously built massive concrete-block structures to the north and south of the bridge's ends anchored the bases of these cables. With the main cables in place, installation of the bridge's vertical suspension system proceeded. That system, composed of strong wire suspender ropes hung from the main cables and designed to hold up the bridge's roadway, was scheduled for construction over the last half of the year.

From the beginning Strauss had insisted that Golden Gate Bridge workers wear hard hats—a new safety adaptation in the 1930s—at all times. During the summer of 1936, in what was a historically significant safety innovation at the time, Strauss also ordered his men to install a large, heavy-duty trapeze rope net below the area where the especially dangerous roadway steel construction work was taking place. Done for the most part over the ocean, roadway work progressed from each tower in the direction of midspan as well as toward the two shores. Bridge road builders had previously worked at great heights with nothing below them but air. Those who "fell into the hole," as the men put it, suffered grave

injuries or died. On the Golden Gate Bridge job, where a fall along most of the span would be more than two hundred feet, death seemed all but certain without the net.

Fred Divita, whose testimony forms chapter 1, oversaw the safety net's installation. By late 1936, the net was up. At that point in the bridge's construction, only one worker had died: on October 21, just as the last wire suspender ropes were going in and the steel roadway was nearing completion, a moving derrick had fallen and killed Kermit Moore. Unfortunately, even the new net did not guarantee complete safety. On February 17, 1937, a huge timber scaffolding holding a work crew gave way and tore through the net, plunging the whole apparatus and twelve men into the sea below. Only two survived the fall. One was Slim Lambert, who recalls his harrowing experience here in chapter 7.

The ten workers who died that February were Fred Dummatzen (a man Lambert tried mightily to rescue), O. A. Anderson, Chris Anderson, Bill Bass, Orrill Desper, Terence Hallinan, Eldridge Hillen, Charles Lindros, Jack Norman, and Louis Russell. Balanced against this traumatic event, Strauss's net saved the lives of nineteen men who fell into it during the span's construction. Given an early twentieth-century business formula—one worker's death for every million dollars spent on bridge construction—the eleven lives lost on the $35 million Golden Gate project would have been judged a good safety record, especially compared with that of the concurrent Bay Bridge job, with no safety net and twenty-four deaths.

Despite the tragedy of February 17, 1937, and some investigations that followed, construction of the Golden Gate Bridge went ahead essentially as planned. That April the men finished paving the bridge's roadway. On May 27, the Golden Gate Bridge officially opened to the public with great regional fanfare and a celebratory walk across the span by thousands of people. The next day the new bridge received automobile traffic. Almost immediately the structure was acclaimed as one of the industrial and engineering wonders of the world.[18] The workers, though, still had stories of their own to tell. You will hear some of them in the testimonies that enliven the pages to come.

1

Fred Divita

FIELD ENGINEER

You could hear the riveting hammers going and the compressors going. Just noise. And here I am, a country hick, just coming in. I'd never been on a job like that in my life. I'm going up this elevator, up, up, up, getting more scared as we get up there.

FRED DIVITA

The son of Italian immigrants, Fred Divita was born in 1911 in the town of Fairfax, in Marin County, California. He graduated from the University of California, Berkeley, in 1934 with a degree in engineering. The only job Divita could find during the Great Depression was as a paint scraper on the Golden Gate Bridge. Later he labored on the San Francisco–Oakland Bay Bridge construction project. He returned to the Golden Gate as a field engineer in 1936 and supervised the installation of chief engineer Joseph Strauss's innovative safety net. When the net was no longer needed, Divita found other employment on the Golden Gate Bridge until its completion in 1937. In later years he pursued a career as a construction engineer. I interviewed Divita in San Anselmo, California, on March 15, 1987.

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I was commuting to Cal from San Francisco during 1933 and 1934 when the bridges were going in.[1] Just riding the ferries I was getting an engi-

neering education, looking at all the bridge foundations being built. It was really amazing to see. You could see things going in at the approaches on the Oakland side of the San Francisco Bay Bridge, from putting in a cofferdam to driving the pile to pouring the concrete. You could see all that going on because the train to Berkeley went right by there.

Going across on the ferry from San Francisco to Marin County, you could see the tower starting up and the foundations going in on the Golden Gate Bridge. By the end of my last year at Cal, you could see the two big cranes and red iron sticking up a little bit from the tower. Sometimes you could even see a piece being erected.[2] I hadn't the least idea then that I would soon be working on the Golden Gate Bridge myself.

I was born in Fairfax, California, in 1911.[3] I was fortunate enough to be born in such a gifted country. When my father came to America from Pisa, Italy, around 1905, he was fifteen years old and looking for some way to subsist.[4] He went to work in the East as a water boy on a railroad, made his way west, and got into setting marble in San Francisco.[5]

My mother was from a little town near Lucca. My parents were both very poor when they met in the city. After the earthquake and fire in 1906, they stayed in a tent at the San Francisco Presidio. Then they came to Marin County. My father loved Marin County, so he commuted to San Francisco by ferryboat for a couple of years after the earthquake. Then he found a job closer to home as a caretaker, chauffeur, and gardener for a steel fabricator. He worked for him from about 1918 to 1931 or 1932.

In 1917 I started attending a school in St. Regis Church of Fairfax. We spoke Italian until about the fifth grade, when I moved to Fairfax Men's School, where we were taught to talk English. My father and mother began to pick it up, so we gradually eliminated the Italian. I graduated from Fairfax Men's School in 1925. Then I commuted to high school on a steam train.

We were pretty primitive here until some time after the Golden Gate Bridge was built. The woods were beautiful in Fairfax in the 1920s, and we hunted for deer, quail, and pigeons. We used to fish for trout in streams that went right through town. We'd rely a lot on what we could catch and hunt.[6] There were five children and my father and mother. My father was a gardener, so my parents struggled, but we had good food on the table. During high school, I waited tables and washed dishes in local Italian

restaurants. My sister did housework for these people that my father was the caretaker for.

There were many other Italian families in Fairfax that came to America at the same time as my father and mother. They were all in the same boat, struggling to stay alive. They had a little community of their own. If there was somebody building something, the other Italians would go help them do the work. I remember that every year we'd all go over to Simi's vineyard and help them pick grapes to make wine.[7]

Our family eventually built a little compound of our own up in Fairfax just like the Kennedys have. It's still there [in 1987], including the first house, built by my father in 1918. My sister lives next door, my brother and sister-in-law live next to that, and my other sister built the house behind us. Then we put up another house over there, so there are five houses. Five families lived there for a long time.

When I started high school, my family couldn't give me advice [about what to study]! They didn't have that kind of a background. But the trades were coming up, so I took machine shop for three years and worked in a machine shop for a while. Then it dawned on me that I could stay at home and go to Marin Junior College, which opened in 1926. I went there from 1929 to 1931. School came hard, and I really studied. My grades weren't the best, but I got enough to get into Cal and start there.

In 1931, when I was at Cal, my mother passed away. Things were breaking up. Money was hard to come by after the Depression hit in 1929. There were many students with me in the same hole. I left school for a year, then tried to recoup. I was going from hand to mouth. My older sister took over, took care of my little sister, and helped me. I even lived with her and my brother-in-law while they were in San Francisco, where he owned a restaurant on Broadway in North Beach. Otherwise I would never have gotten through school.

At Cal I majored in mechanical engineering. When I graduated in 1934, I tried my best to find a job, but I couldn't find anything. It was just fortunate that two students I'd started Cal with continued on and graduated a year ahead of me. Somehow or another they got jobs on the Golden Gate Bridge project with Bethlehem Steel.[8] One was a timekeeper and one was an engineer. When they heard they needed a laborer to help scrape paint, they told the foreman they knew a kid that just graduated from college. They asked if he could come over and try. That's how I got a job on the bridge.

I started scraping paint for the Bethlehem Steel paint superintendent.[9] A couple of painters signed up at the same time with me. When we went to work, we got in the Marin tower elevator. The tower was nearing completion at that time. The elevator was a wire cage operated on two cables that were about an inch in diameter on each side, and guides. You went up alongside the tower on the outside. The wind was blowing, the fog was coming in, and everything was dripping wet. As you went up, the wind pressure would push the elevator sideways.

Finally we were near the top. The travelers were still up there. A traveler is a movable construction rig with booms and stifflegs.[10] They would move it up the tower. I don't know if the last couple of steel pieces were in the tower, but all the construction equipment was there. The raising gang was still working. You could hear the riveting hammers going and the compressors going. Just noise. And here I am, a country hick, just coming in. I'd never been on a job like that in my life. I'm going up this elevator, up, up, up, getting more scared as we get up there.

The towers are 746 feet high. We were down near the bottom of the traveler strut. If the traveler top was at 746 feet, we would have been thirty feet lower, or about 710 feet. Then the elevator stopped. The elevator operator says, "This is where you get off." The two painters were with me. We looked out there. To get off, you had to step on a two-by-twelve that was cantilevered out from the bottom strut of the traveler.

The two painters started to go out. They looked over there and saw the two-by-twelve. They said, "Do we have to get out going across that?" The elevator operator said, "Well, that's the only way." The painters said, "No. Take me back down. I'm quitting." Then the elevator operator said to me, "How about you? Do you want to get off?" I thought a little bit. Then I says, "It's the only job I have. It's only three or four feet to walk out there. I can make that." So I braved it and went across.

When I got out, I looked up. There was the black steel of the travelers, the red steel of the towers, and hoses running in all directions. I was amazed at all the activity going on. I just couldn't picture it. I was in awe.

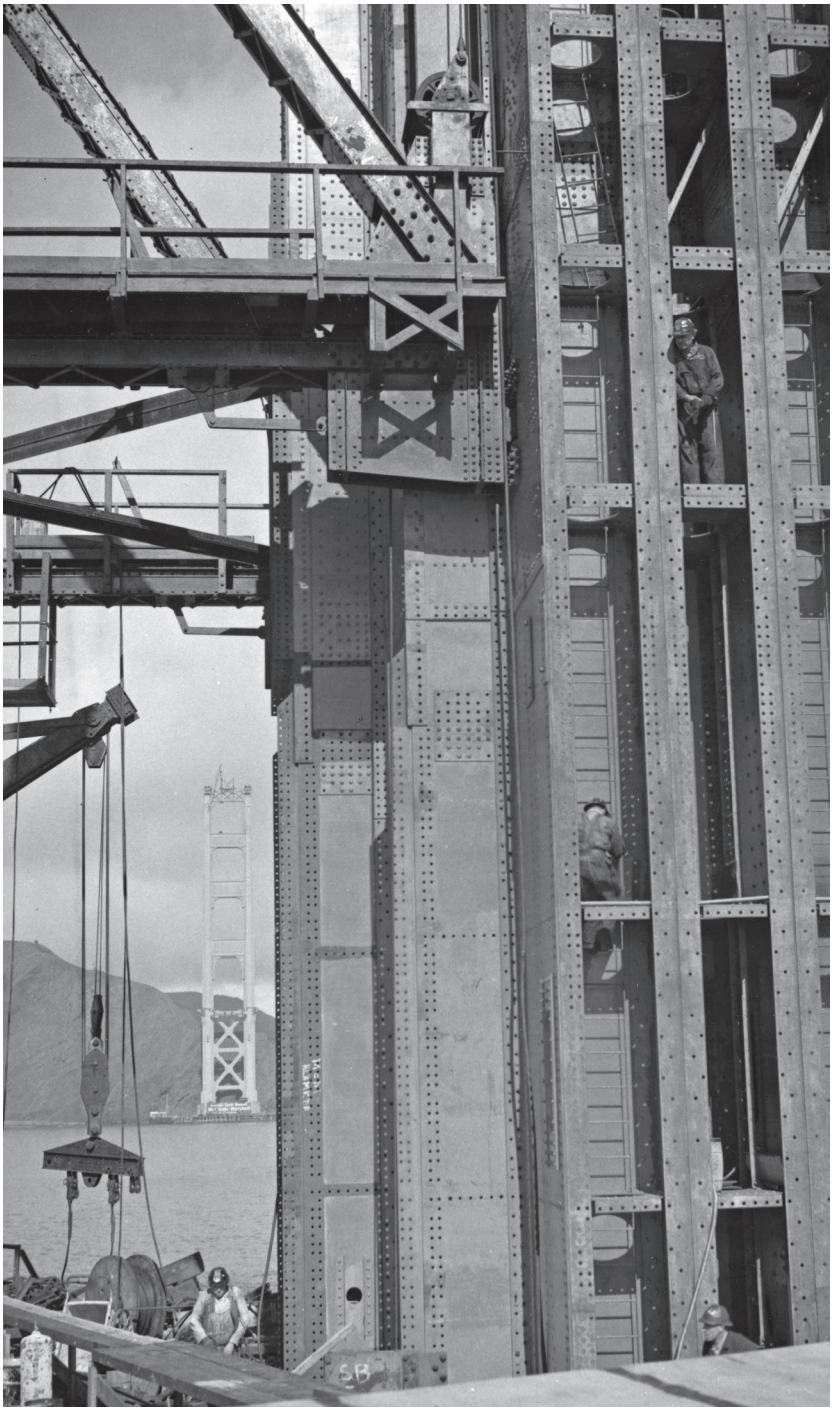
The paint superintendent's office or shack was up there. He assigned me to a foreman and told me the job was scraping inside the tower. I had a hard hat on with a light, a pair of overalls, and regular shoes. I don't think they had shoes with hard toes then. I couldn't afford 'em at that time anyway. There was some safety taken care of, with masks for

Heaters and riveters at work on the Golden Gate Bridge. The intense construction activity awed Fred Divita when he began his first day on the job in 1934. Photo by George Douglass. Courtesy of Labor Archives and Research Center, San Francisco State University. Copyright Golden Gate Bridge, Highway, and Transportation District.

the paint smell and safety belts. When I started to work, you could smell burning paint. The foreman gave me a scraper and a wire brush and told me what to do. There I was, scraping paint.

The towers were made of three-foot square cells.[11] Every ten feet or so there was a diaphragm and a ladder.[12] You went up the ladder. You got to the next diaphragm and you could stop and stand there. There were 103 of these cells starting out at the bottom of the tower. They ended up at the top with twenty-one cells.[13]

There were manholes that went from one cell to another. They couldn't be all in one position because that would weaken the tower. So they were



spaced. You'd go up five flights. You'd go in a manhole and maybe you'd have to go down another one to get into a certain cell. I later read there were twenty-three miles of ladders in those towers—that is, between the San Francisco tower and the Marin tower. I was in there for about four months, scraping the paint and cleaning it up.

I must say I really had admiration for those ironworkers. I'd hear them and watch 'em rivet. There would be the heater heating up the rivets and throwing 'em to the catcher, and the bucker-up trying to buck up the rivets.[14] And there would be the raising gang erecting these pieces. Some of those pieces were as much as eighty tons. They were erecting 'em thirty-five feet high raising the towers. They're just fascinating.

I got to know a lot of people in that four months scraping paint. Evidently I did a fairly good job because they sent me over to Alameda after that [to do a different job for the same company] when they were having trouble with the Golden Gate Bridge's San Francisco [south tower] foundation and there was a delay in that tower. They said something about four months' delay in the foundation. I read that the caisson they put in there wouldn't fit. It started to tip. They took it out and eventually towed it out in the ocean.[15] Then they built the foundation from the cofferdam that they built around it. So, during the delay, they sent me over to Alameda and I worked there for almost a year as a sandblaster. I was sandblasting the steel that went on the Bay Bridge.

Whenever they roll steel, there's a layer on there of mill scale. You could sandblast it, but on the Golden Gate Bridge they didn't do that. Somehow or another I think they wished they did to get it down to raw steel before they painted it. On the Bay Bridge, we had a new system of sandblasting using steel grit. This blasting was done inside a building and the grit could be used over and over. They got it down to raw steel before they painted it. Boy, it was really clean when they got through with that grit blasting. They would then take the steel outside and the painters would paint it. I don't know how many coats they would paint on the steel. Then they took it out to the Bay Bridge.

When the Bay Bridge was all sandblasted, I'd finally got to be a foreman on the sandblaster crew.

Workers on the Golden Gate Bridge's south tower with a view to the north, 1935. Divita described getting around in cells like these (*right*) when he became a paint scraper on the north tower in 1934. Photo by Ted Huggins. Courtesy of California Historical Society, Huggins Collection, CHS.Huggins.001.

I had five or six people. After we got through with the sandblasting, I got a job out on the Bay Bridge as a materials man. I would go to every foreman and ask him what he needed, whether it was slings, sledgehammers, cable clamps, or anything that was required out in a crew. Also, if the riveting gangs needed anything, I would be sure they got it. I had that job for quite a while. It must have been four to six months.

Then they ran out of work, so I went to work for American Bridge as a timekeeper on the Bay Bridge. I don't recall how I got that job. Jobs were really tough to get. I must have known somebody. A fellow by the name of Gage was the office manager. He was a rough, tough guy, but a hard worker.

Gage really worked us to death. I would catch a little boat and go all the way out to Yerba Buena Island from Pier 24 in San Francisco and I would take time on the people there.[16] They were just finishing up spinning the cable on the suspended span.[17] There was about two hundred people on that job that I had to keep time on. I'd go into the office and write down the time. Fortunately, there weren't as many fringe benefits in those days as there are now, because I had to get the time all lined up so we could have the payroll ready for 'em at the end of the week. It was a lot of work.

Then, in '36, they were gonna start the truss work for the suspended span of the Golden Gate Bridge. So they took me right back. I quit American Bridge and went to work for Bethlehem Steel as a field engineer. They knew I had graduated as an engineer and that I had worked on the Golden Gate Bridge before and knew a lot of the people on there. That was the first job I had with the title *engineer* in it. I was made responsible for installing the safety net under the suspended span as it was going out.[18]

When I began as a laborer on the Golden Gate Bridge, I made ninety cents an hour. When I worked as an engineer, I also got ninety cents an hour. It wasn't until I went to work as a rigger that I got $1.33⅓.[19] Fifty-five bucks a week. That was big money in those days. I was really in the Joe, really doing well then.[20] But in my Golden Gate Bridge days, I was tight with money. I didn't want to spend the money to go to those nightlife places. I'd been poor all my life and I would try to save my money if I could.

When I was working on the Bay Bridge, I was living with my sister. But as soon as I got back on the deck—that's what I called the Golden

Gate Bridge truss span—I went and lived with my father in Fairfax again. I went back and forth sometimes on the train. But my brother had a little Chevy coupe that he let me use and I would go back and forth on that, too. I'd park the car on the Marin side, walk up on the bridge, and walk out on it.

To build Strauss's safety net, we went up and put in a traveler net. First we had to erect some steel and then put up the net. It traveled on a top chord.[21] There were rollers near the bottom to keep it from tipping. It stuck out from the sides approximately ten feet beyond the widths of anywhere you'd go where the trusses were.

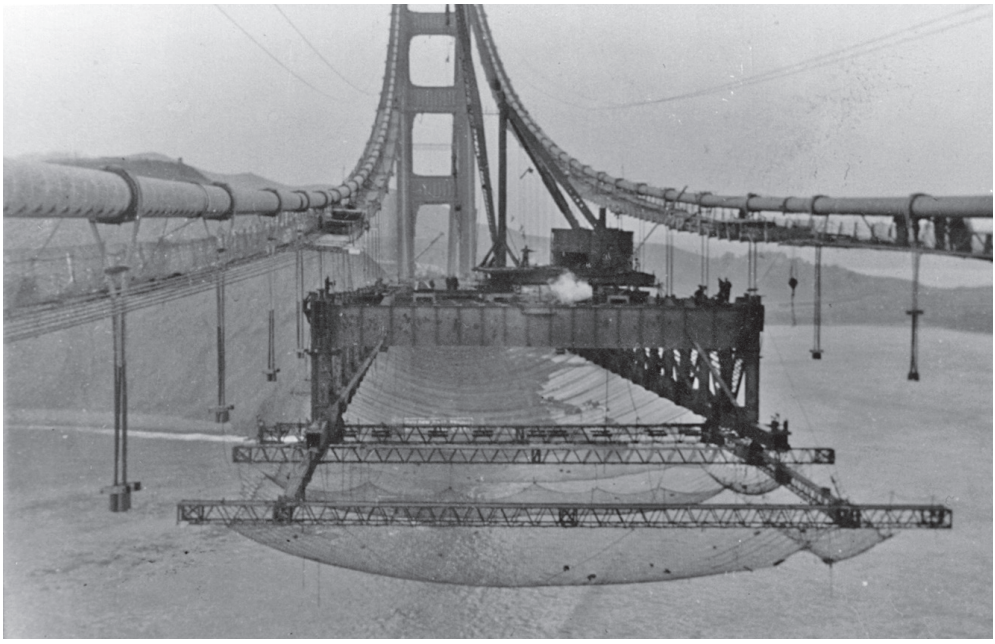
The mesh was six by six. It was half-inch Manila line with a six-inch mesh. It had some kind of a clip that held each section of the six inches in there. The net was in increments of fifty feet in length. That's how far we moved the traveler every time we wanted to move. We moved it in fifty-foot increments because the structural steel was erected in fifty-foot increments.

They'd hang the cables that were suspended, then the floor beams, the diagonals, and all the steel that was required for that section. Finally the stringers would go on and the erection traveler would move out ahead.[22] That's when the safety net traveler would move ahead the fifty feet. It cantilevered out beyond where the people were working so that when they erected steel they'd have a net underneath them all the time.

My responsibility was to see that they had all the material necessary for the next move and to see that it was installed as shown on the drawings. I'd be with the workers and sometimes I'd even help 'em make the ties. We were in the net all the time. Sometimes we wanted to get across to the other side and we would walk the net. There was nothing to it. It wasn't scary. It might be for somebody that hasn't seen it. I got used to it. I wasn't shaking like I was the first day on the job.

Building the net, I was more or less on my own. The chief engineer couldn't go around and bother looking at me all the time. Sometimes, when I was through with the net, I'd go up topside and watch 'em move the erection traveler and they'd ask me questions, like what was wrong. If there was something that wouldn't fit, I'd run down the drawings and try to find out what the errors were, just like a field engineer would be doing.

Once while I was responsible for the net being installed, for some reason I came up on the deck to where the traveler erecting the trusses



Chief engineer Joseph Strauss's innovative safety net, looking northward, 1936. Divita supervised the net's installation that year. Courtesy of Labor Archives and Research Center, San Francisco State University. Copyright Golden Gate Bridge, Highway, and Transportation District.

was. It was October 21, 1936. I was just going down and I heard this big bang. The traveler collapsed. It shook the bridge hard. I was shaking like that first day in there. I saw one man fall in the net. I went up there and Kermit Moore was decapitated, cut in two. Everybody called for stretchers and doctors. Then they locked up everything and everybody went home.[23] I wasn't there, though, when another accident tore the net and ten men died on February 17, 1937.

Unfortunately, on the Bay Bridge, I saw a man fall off a scaffold twenty feet and hit the ground. He was dead on impact. That was terrible to see. He was screaming when he was coming down. It made me sick. You couldn't do anything. There were no nets on the Bay Bridge. The Golden Gate Bridge started the nets with Strauss. When Kermit Moore was killed, that was the only fatality in twenty-four months. That was a record.

But you knew that there was some safety taken care of up there on the

Golden Gate Bridge. There were masks they put on for the paint smell, and there were the hard hats. That was the first time I ever saw a hard hat. Then they came up with the safety belts that you could tie yourself off with. They really started a good safety program there between Bethlehem Steel and the new Bridge District.

The thing for me was that on the Golden Gate job, I met all these top-notch riggers: Jack Turnipseed,[24] Ed Reed, the superintendent Slew Letterman, Chuck Letterman, and my friend Ed Stanley, who drove the first rivet on the bridge. He was the rivet superintendent on the truss span in addition to being the rivet superintendent on the towers. He was a very knowledgeable man in that field. I also met Grover McClain, a superintendent, and Harold McClain, who you sometimes read quite a bit about 'cause he worked all the way through the bridge.

Ed Stanley was called the Iron Horse. He could drive more rivets than anybody. Somebody told me that back east on one of the bridges he drove over a thousand rivets in one day. Now, if a crew could drive three hundred fifty to four hundred rivets a day, that's a pretty good day's work. Slew Letterman had been the superintendent for Bethlehem Steel on many other jobs. He was an expert on erecting and rigging. His brother, Chuck Letterman, was a foreman and a crackerjack bridge man. Jack Turnipseed had an Indian background. He came from those famous Indians back east that were steel erectors over there.[25]

When we got through with putting up the trusses on the Golden Gate Bridge, I got laid off. Bethlehem didn't have anything more. American Bridge didn't have anything more around there. But before the Golden Gate Bridge was opened in 1937, Ed Stanley gave me a job underneath the floor beams of the deck after the concrete was poured. They had some problems with the paint on the Marin side. Moist air had been coming up and had rusted all those beams.

So Stanley took me over there and we moved the scaffolds for the painters under the bridge. I did that for about four months. Fortunately, I didn't have to do the scraping and painting myself. But I did move the scaffolds for the painters who did the scraping, cleaning, and painting. The problem was only maybe a third of the way from the tower out. The paint was okay from there on.

Moving the scaffolds was physically hard. There were twenty-five-foot-long scaffold beams made of wood. They were six-by-eights and

they were grade A-1 lumber. Then you had plywood decks that you'd put alongside each one of the floor beams. Painters could go in there and stand and scrape the paint. We would have to take all that scaffolding out each time the painters finished a panel of twenty-five feet and move it around for the next twenty-five feet.

You were standing on the bottom flange of the floor beam, trying to support one of these wood scaffold beams while moving ahead so you could put the plywood down. It was pretty difficult. I was five feet seven inches tall. In high school I weighed 117 pounds. I guess I got up to 130 by 1937. Being a small guy like I was, I did a lot of sleeping when I got home at night.

One of the things I wanted to tell you more about on the bridge was the weather. Some days it was really cold. I remember this particularly for the time when we were chaining that scaffolding for the painters onto the deck. The bridge had been completed and the fog would blow in through there and through the trusses. Water would be dripping. You'd think you were in a rainstorm. Your hands would get numb and you'd put on all the clothes you could trying to handle this heavy scaffolding.

But the worst part of cold weather was after I got in my car and started home. I was living in Fairfax. After being in that cold for eight hours a day and just freezing to death, I'd get up to Corte Madera and I would start picking up the heat of Marin County.[26] The temperature would get up to seventy, eighty, or maybe ninety degrees. My face would turn red as a beet and hurt, really hurt. Burn, burn, burn. It wouldn't be over until late that night when I really got used to the heat. It kind of worried me, but eventually it didn't affect my face too much.

I was also there when they drove the golden rivet on April something.[27] Ed Stanley drove the rivet. Ed Murphy, who was a friend of mine and a superintendent on the San Francisco side, bucked up the rivet. They'd slam it in there and buck it up and the driver would go in. All the dignitaries were around and I was standing there, watching.

They had the heater going, but they never heated the gold rivet because they thought it was malleable enough to drive in. The bucker-up got on the button head.[28] They had to hold it in. Stanley got on the driving side and drove the rivet. He drove and he drove and he drove and it wouldn't go. He kept driving it and got it halfway shaped and it fell off. It snapped off right between the shank and the partial head he was making with

Ed "Iron Horse" Stanley (*left*) attempting to drive a golden rivet during a ceremonial gathering just after the bridge's opening, April 28, 1937. Edward Murphy (*right*) served as bucker-up while Joseph Strauss (*middle*) helped. When Stanley's effort to drive the unheated rivet failed, Divita held on to the gold remnant for safekeeping. Courtesy of San Francisco History Center, San Francisco Public Library.

the rivet hammer. And it fell off. To this day, nobody knows what ever happened to that piece of gold.

I remember the rivet was a three-quarter by two and a half. If you take a steel rivet, it weighed 0.32 pounds per rivet. If you convert that

to gold in specific gravity, you come up with a little under a pound and a half. At four hundred dollars an ounce in 1987, the rivet's worth about seventy-eight hundred dollars. Now, the rivet didn't stay there very long because everybody was trying to scrape some of that gold off. So they took it off and put in a steel rivet.

They gave the gold rivet to me. I looked like the only honest guy around there, I guess. I was a kid. When I got the rivet, I held it with Mr. Stanley. The next day we took it down to the shop on the Marin side and I threaded it. We brought it back up there and I put a steel nut on the gold rivet. Then we concreted the nut back in and put a chunk of concrete in there so nobody could take the nut off. But later somebody said they were scraping the head that was sticking out of there so they took it out completely. I kept the thread on the gold rivet for many years. But I moved around so much it got lost in the shuffle.

It was on the Golden Gate Bridge job that I met Mr. Pomeroy of the J. H. Pomeroy Company that I finally went to work for forever. Mr. Pomeroy used to go out on the Golden Gate Bridge approach span. He had a contract for the approach. I was in the office one day and A. F. McLane, the project manager for Bethlehem steel, came by. McLane was a terrific engineer and a very well educated man. He says, "Come on with me. I want you to go over and see what Pomeroy is doing over there." We went down and walked around the road to the backspan. There was Mr. Pomeroy, watching his people erect some new system of falsework for supporting the truss span over there.[29] So I met Mr. James Pomeroy and got to know him, or at least got introduced to him.

When he was through on the Golden Gate Bridge, Ed Stanley got a job with J. H. Pomeroy Company to be the rivet superintendent in Los Angeles on the federal building being constructed there. Stanley took me with him to L.A. in 1938. I worked as a field engineer there and we worked on several other jobs. On the Golden Gate Bridge as a laborer I wasn't in the union, but when I got down to Los Angeles and I got to know all these ironworkers, I joined the union.[30] I was very proud to be one of 'em. I didn't want to be an outsider. Even though I was working as an engineer, I wanted to be part of them.

When we were through in Los Angeles, Mr. Pomeroy didn't have anything to do. But I get ahold of Slew Letterman and they took me up through Grand Coulee and McChord Field and I worked there for a few

years as an ironworker putting up bridges, steel buildings, or hangars. I advanced and was project manager of some things, but the ironworkers were always with me on part of one job or another. I only had admiration for 'em. From the background that I had on the Golden Gate Bridge and working with them, they were the kind of people I wanted to be.

During 1939 and '40, I came back to Mr. Pomeroy again when he was successful in getting a contract to build a pontoon bridge across Lake Washington. He took me up there to be the field engineer at the dock where we put the pontoons together. I was there from the start of the pontoon bridge until it was completed.[31] Then I worked for Pomeroy continually forever, I guess, on various jobs.

Mr. Pomeroy sent me to Oakland where I was a civil engineer for him when he was building a lot of warehouses for the army. From there, in 1941, just before we entered World War II, he sent me to Midway Island with Jack MacDonald, who had been an erection superintendent on the Golden Gate Bridge. Mr. Pomeroy was one of the naval air base contractors.

At Midway I became superintendent for putting up hangars and the big water tank. After their attack on Pearl Harbor in December 1941, the Japanese fired on us from cruisers and submarines. We had thirty or forty Marines protecting the island. I don't know how many four-inch guns they had. Once shots were going on all over. I jumped under a crawler crane in the yard and stayed there for a half hour until the shooting slowed. Then I ran for the gravel plant, which had a tunnel under it. I jumped in there and stayed until all the shooting was over. They had air raid warnings, too, that would go off three or four times a day. We'd drop everything and run down to foxholes on the beach. When the air raid warning rang at night, we'd run down and try to sleep in the foxholes. We never did get an air raid though. For days we thought the Japanese were going to land, but they never did.

In March 1942, a transport picked us up and took us to Pearl Harbor. We went right up the estuary where all of the battleships were stationed. You could just see the masts sticking up out of the water. Some of the ships were turned over. You could see the bottom of the shells in there. It was complete destruction. Those Japanese really dropped a lot of bombs. I just couldn't get over it.

During 1942 and '43, with the war still on, I worked as the superintendent of rigging and structural steel when we built these twenty big

underground oil storage tanks at Red Hill near Honolulu. My wife, Mary, who was born in San Francisco, and I were married over there then.

In 1944, I worked in Alaska when Mr. Pomeroy got a contract to put up the structural steel on many of the river crossings on the Alcan Highway.[32] When he got a wartime contract to put the Canol Pipeline in from Norman Wells, Canada, to White Horse, Alaska, I was the pump station supervisor. Quite a bit later I was residential engineer of a big Alaskan project called Drift River, where we had to put a big platform a mile out in a hundred feet of water. I had to negotiate with the ironworkers over wages. The union's labor relations were done by Juel D. Drake, who now [in 1987] is the general president of the ironworkers' union. He came over and I negotiated with him. Jules was a really good, very fair negotiator. He made his point and everybody agreed. We set a rate and it seemed to work out pretty good even though I was a little afraid because I belonged to the union. That is, I was negotiating with Drake across the table and I was really scared that he'd say, "What are you doing fighting me? You're an ironworker!" But I was not getting paid as an ironworker at that time. I was getting paid as a resident engineer on that job, so I had to negotiate with him, although I had an ironworkers membership card and still do.

After the Second World War, I spent a lot of time in San Francisco as the vice-president in charge of domestic work for J. H. Pomeroy. We had quite a bit of work going on in San Francisco and along the Pacific Coast, but it wasn't necessary for me to be on the job continually. I would go from one job to another, trying to make it a day trip. Most of the time I tried to be home for the weekends. I was fortunate to have my wife, Mary, 'cause she could handle our five children when I traveled and she had to do it all. I retired in 1976.

Looking back, I want you to know that all these people I met on the Golden Gate Bridge set the pattern of my life. After I left the bridge, I met Jack MacDonald and C. T. Gutleben, who was a project manager on the bridge for J. H. Pomeroy. I worked with them for many years. You can see what the Golden Gate Bridge meant to me from there on out. I went from being just a kid that didn't know anything to meeting all these friendly and skillful people and getting all this information and all this education in construction. It just helped me all through my life. They were great people. And I was lucky enough to meet 'em all.

In those early days I voted all the time, but I didn't say I was in a political party. I didn't know the difference between the Republicans and the Democrats. I'm still not a politician and I don't follow politics too much. But I voted more Democratic then. Roosevelt came in during the heart of the Depression and right away put a stop order on the banks to close them so they wouldn't go broke. His WPA got a lot of people to work.[33] I think Roosevelt started the whole country getting back on its feet. It was he, or his party, that helped the country along. Later on, I thought his party went too far, so I got a little more on the conservative side and when Richard Nixon came around I voted for him.

I did a lot of work out in the Pacific over the years, and I would come in on an airplane and look down and see that beautiful bridge structure. Or when I came in on a boat several times, when you saw that Golden Gate Bridge, it was so beautiful. One of the things I admired so much is, when you look at the bridge from a side view, you get that fluted cowling on all of those struts rather than looking at the Bay Bridge and you see that X-bracing going up and down. The Golden Gate Bridge is just a marvelous, marvelous structure and it really looks like the Golden Gate. I was so proud of having worked on it. It was really something.

2

John Noren

ELEVATOR MAN

When the little elevator got overcrowded and there was no room for me, I would stand on what they call a crosshead, which was a small beam about ten feet above the elevator platform. You'd stand on that and hold on to the cables and ride up. I got used to it, but I still felt very much relieved when we hit the road at four-thirty and you'd stamp your feet on the ground. **JOHN NOREN**

John Noren was the son of immigrant parents from Norway and Sweden living in San Francisco. He was born in 1916. In early 1937 he needed a job. A former minor league professional baseball player with few marketable skills, he secured employment on the Golden Gate Bridge through his father, an elevator builders' union member. Noren worked as a mechanic's helper to an elevator installer until the bridge was nearly completed. He later had a long career in management as a field engineer for an elevator company. I interviewed Noren in San Carlos, California, on March 2, 1987.

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Before World War I, the elevator constructors' union was a tightly knit group. You didn't do anything around an elevator in San Francisco without a union card.[1] My father, who was also named John, believed in union principles and was a good member for years. He retired as an honorary

member of San Francisco's Local 8 of the International Union of Elevator Constructors [IUEC].[2]

My father sailed on fishing schooners off the East Coast before he came to California. Signe Noren was my mother's name. She worked in a seamen's boardinghouse. They met in Boston. He was from Sweden and she was from Norway. They came to San Francisco after the big earthquake and fire of 1906. I guess there was a lot of elevator work then, because he went into that business. He had a brother in the city who was the business agent for the carpenters' union.[3] The building trades was a natural thing for my father to follow. As a seaman, he was accustomed to rigging, using ropes, and working at heights—things that elevator constructors had to do.

I was born in San Francisco's Mission District in 1916. My wife and I graduated together from Mission High School in the city. We were educated in the public schools. I was in high school from 1930 to '33. Of course, money wasn't plentiful in the early thirties during the Depression. I got work occasionally as a night watchman when I was going to high school, which made life a little awkward because I'd be up all night. That job came through a friend of my uncle's who was a sea captain. I worked aboard ships up and down on the waterfront. This was from five o'clock in the afternoon till eight o'clock in the morning. I received five dollars, which was a lot of money in those days. I'd put out the kerosene lamps and help the drunken sailors aboard ship at night. I used to sleep whenever I could, which was against the rules, but otherwise you weren't in any shape to go to school.

My father was still an elevator constructor, but there was no work in the early '30s. There was absolutely nothing going on. So my father found his way to the waterfront and got a little work as a longshoreman now and then. He worked aboard ships assembling lumber and making loads that could be hoisted in and out. This was hard. It was all done manually. When things were tough, I told him I'd like to join the National Guard. I says, "I can go to camp, go to meetings, and pick up a few dollars." He said, "No, don't do it, John." This happened in early 1934, it must have been, because he says, "I think there is going to be a strike, and if that comes to pass, you'll be in the National Guard. They might call you out, and I'll be on the other side of the street." And he was right.[4] I never did join the National Guard.

In 1934, through a friend, I was alerted to a job opening coming up as an apprentice in the art department at Schmidt Lithograph, where they made large posters. These were printed from zinc plates. All the artwork was done by hand, and I loved to draw and print. Those men who worked there were remarkable, talented artists. I remember going down and being told, "Well, come back in a few months," that kind of thing. This was the closest thing I could come to as a steady job, so I kept going there every month. Finally Ben Schmidt says, "All right, I'm sick and tired of looking at you. I'll give you a thirty-day trial with the understanding that if you don't make it, you're going to be gone and don't come back." That sounded like a square deal to me. It worked out, but later the whole beautiful hand art process was replaced by the color photography method, so these men were just like blacksmiths. Their heart was gone and I with it.

I did have an offer to play professional baseball, not that I was any great shakes, but I loved the game and I wanted a fling at it. I signed a contract with the Saint Louis Cardinals. They assigned my contract to the Sacramento Senators of the old Pacific Coast League. Sacramento farmed me out to Albuquerque, New Mexico. Later I was sent to Midland, Texas. This was an experience because it was pretty down-to-earth. They talk about playing in bus leagues, but this was lower than that. We had three used cars. We tied everything to the roof and away we rambled from town to town.

I was a pitcher, but when you play in these Class X leagues, which is about as low as you can get, everybody's an outfielder in case somebody's hurt. And I hit pretty well. One day Branch Rickey, the very famous baseball owner, was there.[5] I was pitching, and when I came to bat I hit the ball about as hard as I could ever hit it. It hit up against the right center fence. At the end of the inning, Rickey came out to the pitcher's mound, took my glove away, and says, "Anybody that can hit a ball like that is not going to be a pitcher." They tried making a first baseman out of me, but I was a little awkward at the position. That just added to the fun I had.

Playing baseball was wonderful, but it was also my first exposure to racial prejudice in the South. Being from the Mission District, I grew up in a neighborhood of basically Italian and Irish people.[6] There was a smattering of Scandinavians, some Jewish and Greek people, but I'm telling you, to go to the South in the 1930s as a young kid from the Mission

District, it was really another world. You heard stories of the black people having to step off the sidewalk when you passed by, and that's exactly how it was. They also had those special separate areas in the theaters.

I remember one white woman down there who was everybody's picture of an ideal lovely grandmother. She was an elderly person. I saw her berate a black man who could have picked her up and broken her in half, but he just stood there saying, "Yes, ma'am." She just destroyed my image of her. I would never talk to a person like that, but that was the relationship in the South.

The black people in the South, too, loved baseball. When our park was idle, if we had off days, they made arrangements for the black teams to play each other. There were no games between the whites and the blacks. That was out. They wouldn't even consider that. But I'd go out and watch the blacks play, and I had to admire their skills and abilities. They were fine athletes, and the enthusiasm of both the fans and the players was infectious.

I came back to California and played with the Sacramento Senators again briefly. But I had to be honest with myself: I knew I wasn't going to be another all-star. It was time to settle down, make a career, or get into a trade or something. I went back home to San Francisco and looked for work everywhere. Things were tough. I couldn't find anything. It was early in 1937.

What happened then was the greatest coincidence in my life. One morning I wasn't even out of bed yet. I was sort of planning in my mind what I would do, where I would look, whose doorbell I would ring today. It occurred to me then that they were building this beautiful Golden Gate Bridge structure, and wouldn't it be interesting to be a part of that? At that moment, my mother came running upstairs. She said, "John, there's a man on the phone who wants to know if you want to go to work on the Golden Gate Bridge." Honestly, that was the greatest coincidence I can ever remember.

The man on the phone was Harry Melton, the business representative for Local 8 of the IUEC. He was a friend of my father's.[7] There were several things that made me uneasy about going out there. First, after I agreed to go, I was told, "One of the fellows got hurt and you'll be taking his place." I was there a long time and I never did dare to ask what happened to the guy. It could be anything under those conditions. I think I

took the place of a man named Homer Widenback. This made me uneasy because I knew him to be a very strong, muscular, athletic, wrestler-type guy, and I thought, *Jesus, he got hurt and I'm just a 175-pound kid. I'll get killed out there.* It worked out, and the wages were $1.04 an hour, good for 1937. Elevator constructors were paid pretty well. But I didn't get to stay on the job very long. When the injured man recovered, I was out of work. By the time I left, though, the bridge was essentially complete.

Aside from the heights, I was also initially uneasy about the wind and the cold. Remember, this was my first time out. I had never been on a construction project. The work itself, too, as an elevator installer was unusual because of the configuration of the tower structures. So for me as a novice to be out there was stretching things. What was my background to go into a highly technical business? I'd played some baseball, worked in an art department, and been a night watchman. I had no idea what I was getting into.

Learning was strictly on-the-job. I was a young fellow, twenty at the time, but I knew how to use my hands and handle tools. This helped, and the mechanics to whom you reported did recognize your situation. Most of 'em took the time to say, "Try to understand what I'm doing and how you can help. That's what you're here for." Once in a while you'd run into somebody that would object to your coming on the job as a greenhorn. Jobs were hard to get, and maybe they didn't like the idea of a novice coming in. But it was up to you to overcome that.

On the job, there were just two of us, this mechanic, Frank Jorgensen, and me. I was the mechanic's helper. We were in the south tower. There was a similar crew in the north tower with Hank Beals and Paul Cooney. The elevator we used was not very large. It was a platform intended for the use of the painters and the maintenance people in bringing up their gear. It was what you would call a skip. It ran very slowly on temporary operation.

One of the other things that made me uneasy was this long Manila rope hanging down in front of the elevator skip platform. It ran from the top of the hoist all the way down to the bottom. I was afraid to ask what it was for. I got suspicious. I did have an idea of what it was there for, so finally, one day I says, "Frank, what's the rope there for?" He said, "Well, John, if this thing conks out, there's a power failure or something and we're stuck, we can just slide down that rope." I says, "No way. I ain't

John Noren, elevator installer mechanic's helper, near the top of the Golden Gate Bridge's south tower, 1937. Only twenty years old and a novice when he took a job on the bridge, Noren had to master highly technical skills quickly. Courtesy of Labor Archives and Research Center, San Francisco State University.

going to slide down that rope. I'll sit here until I rot. I'm not going to." He said, "Well, John, suit yourself. I like to go home at night. You can just sit here."

Fortunately, the lift kept going up and down. It was an interesting project because due to the height and the slow speed at which the skip ran, when you loaded up everything in the morning for whatever work assignment you had, you had to be sure you loaded all your materials and tools. This was true because if you got all the way up to the top and found you'd forgotten something in the lunchroom or something else, there was no way you'd be going back down. It would take too much traveling time. You could take your whole lunch hour going up and down. They had portable toilets, but they had 'em at the road level.[8] Still, it was no problem because I was young and could last a day. One of the things you would do along with taking all of your gear in the morning was to

be sure you were in good shape to go aloft for a long time. If worst came to worst, why, wherever you happened to be . . .

When the little elevator got overcrowded and there was no room for me, I would stand on what they call a crosshead, which was a small beam about ten feet above the elevator platform. You'd stand on that and hold on to the cables and ride up. I got used to it, but I still felt very much relieved when we hit the road at four-thirty and you'd stamp your feet on the ground.

In those days, too, we wore coveralls. The wind had a tendency to balloon you out and get under your sleeves. It blew like hell at the top and it was cold. I remember saying to Frank, "You know, this place is going to blow me away." He says, "You got to lean into the wind." I looked down and I said, "No way." But those men who could do that were like cats. I have to admire them, the fellows that really did the bread-and-butter construction stuff. I've seen pictures of them putting fabricated pieces together and bolting them, or welding one piece of steel to another, or standing on a load that was being lifted and then stepping off to the partially completed bridge, all without a safety belt. Nowadays, if you don't use safety gear, that's the first reason to let somebody go. You know, the Occupational Safety and Health Administration [OSHA] has come up with some pretty rigid requirements.[9] But the law was different in the 1930s in the construction world.

Installing the final elevator system included electrical work. We worked in dimly lighted areas with lights spaced here and there. It was almost like working in moonlight. We were running the wiring, which means feeding wires into conduits and wiring up the junction boxes and controllers and hanging what we call traveling cables, which were the flexible connections between junction boxes and the moving elevator. The elevator counterweights, one going up and one going down, consisted of a very long, thin system of weights. They ran the weights in a counterweight shaft that was like a very small honeycomb section. There was a ladder in there, but access to that shaft weight was through top and bottom doorways. They were very much like those on a submarine. You could step out of

Dignitaries visiting the bridge construction site, north tower. Noren recalled riding precariously outside the lift when he helped install the south tower's elevator in 1937. Photo by Ted Huggins. Courtesy of California Historical Society, Huggins Collection, CHS.Huggins.003.

the elevator and reach out and through one of these doors and into the conduit shaft. But you had to be in constant communication with the man running the elevator.

We through-bolted a lot of things. In other words, we'd have to drill through the plate of the bridge structure to fasten items. I'd be on one side of a plate with nuts. Each bolt had a nut. When I got into that shaft, the other man had to know where I was at all times. We signaled by hitting a hammer against the bulkhead, one up, two down. I wouldn't signal unless I'd positioned myself. Occasionally, there were little gussets you could stand on. These weights would pass by close to your person, so that if you were out of position, you could be smashed in there. That was a little hair-raising at times.

Practically all of our work was inside the Strauss safety net, too. The netting was all outside under the roadbed. So it didn't protect us. I came on the job shortly after the big accident of February 17, 1937, when the net broke and ten men died. I do remember seeing the net hanging in the water. It was laying there and it was a startling, grim thing to see.

The last thing I did on the bridge was starting to put the elevator cab on. I thought, *Gee, this is fine. At least I'm going to have something to stand in and not fall out of.* Before, there were big voids between elevator stops, and there was a big void from the front of the elevator on out. So there was plenty of room to fall. But we got the cab assembled and bolted together, and at that time I was taken off the job. That's when I lost my job there. I didn't go back into the elevator business until several years later.

After the bridge I got a little deal where I got twenty-five dollars for pitching for Hollister's baseball club down in what we called the Lettuce League, around Hollister and Watsonville, California. There were several young fellows trying to find work in the lettuce shacks there. Then they played baseball for the town team. I didn't work in the lettuce, I just got paid for pitching on Sunday through the summer. Getting five dollars a week was pretty good for 1937.

Then the fellow who steered me into pitching for Hollister asked me if I wanted to go to work for the Bank of America. The bank was very sports-minded. They had an organization called the Bank of America Club, which sponsored excellent basketball and baseball teams. I started work at the bank posting the Christmas Card account, registering twenty-

five-cent deposits and things like that, and balancing the bank's savings machines. Then I became a teller. Banking wasn't for me, though. It was a livelihood, but it was just a job. Basically I had no feeling of ambition for the whole thing. The people at the bank weren't very well paid. I started at about seventy-five or eighty-five dollars a month. The bank employees weren't organized into a union. But they had a certain spirit and they thought highly of the bank, although they knew they were underpaid by a lot of standards. I worked there until I got married.[10]

Then I had a chance to go back into the elevator business. World War II had started in 1939 in Europe, the economy was picking up, the military was building up the naval supply depot in Oakland, the army was leasing out warehouse spaces, and elevator repair and rehabilitation was part of the scene. So I went back into the elevator business and stayed with it for forty-two years.

I was still relatively inexperienced in elevator work, but they were looking for men. I applied and got a call. As I got further along into it, I got exposed to elevator controls and found a talent I didn't realize I had. I could understand automatic circuitry like I could read a book. That was something that stymied a lot of experienced elevator men. They just didn't understand it. They would rather do the nuts-and-bolts work; but when I was exposed to it, it was like a piece of cake. That really helped me. I became a service mechanic with an elevator route. Being of service to people always appealed to me and it felt like my route was my own business. I owned it. Those were my elevators and the customers were my friends.

The first time I voted was in the 1940 election. I voted for President Franklin Roosevelt. I didn't hear much about politics until Roosevelt came in. Of course, he was admired very much for his reforms and for what he proposed to do and what he did. Before, I didn't know very much about politics. My folks didn't really follow politics much.

In those days I was in Local 8 of the IUEC. One year in the early 1940s, I was proposed as a candidate for the executive board. I was elected for a one-year term. I was a regular mechanic at the time. During the latter part of the term, I was asked by Westinghouse if I wanted to go on salary as part of management. Westinghouse became quite a factor in the elevator business. They had a beautiful line of equipment. This was a point of decision for me. Tom Fitzgerald was the Local 8 business agent. I had

worked as his helper when he had a service route in Oakland. When he was appointed one of the union's international vice-presidents, he had to leave for the East. He said he would support me for business agent. I had to make up my mind whether to follow the labor movement or get into management. Both appealed, except on the labor side when you got into office, you had to run for reelection every year. It's true that getting a salary in management was no guarantee, either, but I opted to go that way and it worked out.

I became a field engineer and traveled around to hospitals, hotels, and office buildings dealing with special problems when new Westinghouse elevator equipment appeared on the market. This was because I had a field background, while many other managers, who were fine engineers, were absolutely unfamiliar with the workings of an elevator. We'd be assigned a novice salesman as a helper and a van and we'd go to work. I stayed at Westinghouse until I retired in the early 1980s.

My relationship with the union stayed generally successful. I had an edge and an advantage in that people who subsequently got into leadership positions with the union, including business representatives, were men I had worked with and knew on a personal basis. So there wasn't the hostility that you might associate with a relationship like that. Sometimes, when there was a union member who was hard to place, the business rep would call me and say, "John, I got so-and-so available." I knew the man and his background and problems. I'd say, "Okay, send him down and I'll find something for him." Then when I needed a favor, it was give and take. That's the way it should be.

There were three strikes at five-year intervals in the 1970s through the early 1980s.[11] Normally you could get inside the hoist way and you'd be out of sight [of the picketing workers], or up in the elevator machine room. One time when I arrived with the van, though, there was already a picket line around the building. But I'd made my decision which way I was going to go and I wasn't going to kick my career out the window. See, if you tell your company, "I'm sorry, you're going to have to keep these elevators running using somebody else," what are your chances? So I just grit my teeth and kept on walking, although it wasn't pleasant.

Over time I don't think anybody ever held my choice to go management against me. I still see my old mechanics and helpers at the company picnics and Christmas parties. I can tell it's just genuine friendship there.

Eventually at Westinghouse I became a regional sales manager and had the whole Pacific Coast as my responsibility.

Reflecting back as a native San Franciscan, I can say I've always admired the Golden Gate Bridge as one of the most beautiful structures I've ever seen. I have a great sense of pride for the relatively small part that I had in its completion. But I can't help admiring the designers, the planners, the engineers, the coordinators, the people who scheduled things, and above all the men who put the bridge together, who did the nuts and bolts of it. When you consider the times and the working conditions out there, you have to admire everyone who had anything to do with that structure.

In retirement I like to paint, and the bridge is one of my subjects. I can sit down and paint a picture of it out of my head.

Glenn McIntyre

IRONWORKER

I went over to an ironworker one day and I says, "How could you join the union?" He says, "You think you can make an ironworker? You may make one, but you'll never be one." That made my determination more.

GLENN McINTYRE

Born in 1912 and raised in Washington State, Glenn McIntyre came to California with his brother in 1928. After the Great Depression hit a year later, he held a series of survival jobs, including a stint as a gandy dancer (railroad worker) near the California-Oregon border while still a teenager. McIntyre was working as a fry cook in San Francisco when he found employment on the San Francisco–Oakland Bay Bridge project, where he became a skilled ironworker. He got hired to practice his new skill on the Golden Gate Bridge in 1936. McIntyre remained an ironworker for the rest of his career. I interviewed him in Saratoga, California, on April 4, 1987, and in Cupertino, California, two days later.

Alvina McIntyre, Glenn McIntyre's wife, was born circa 1913. Here she provides brief but insightful comments from her own perspective on the dangers inherent in her husband's job and how she coped with them. Sometime after the Golden Gate Bridge was built, Glenn McIntyre entered military service and Alvina McIntyre found employment with the Marine Corps. I interviewed her in Saratoga, California, on April 4, 1987.

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GLENN McINTYRE

Whatever the engineer designed, I was ready to build. I wasn't trained as an engineer, it was just bred into me. My father was the engineer for Yakima County in the state of Washington.

McIntyre comes from an Irish spelling, but we were considered Scotch because we were run out of Ireland in denouncing the Catholic church. We were Presbyterians. We migrated over here to America on the *Mayflower* on my mother's side. My father's side came over at approximately the same time. My grandparents on my mother's side migrated from Maine into Minnesota, North Dakota, and South Dakota in pioneer days.

I was born in 1912 on a small ranch that was two blocks outside the Yakima city limits. I went to school in Yakima, but thought it was time to leave the thing when I was about fifteen years old. My older brother was coming to California and I says, "I'm going with you." We came down here in 1928 and ended up in San Francisco. I lived there and worked there most of the time until retirement.

When we got to San Francisco, it was a Saturday. Monday morning my brother gave me a dollar and says, "Good-bye." There I was, only fifteen years old. The first place I headed for was Postal Telegraph because I had worked for 'em in my hometown during schooltime. I got fitted right away for a uniform. I hadn't thought I was going to get a job that first day. I worked at Postal Telegraph as a messenger boy until they caught up with me and wanted to put me in part-time high school.

So I took a hike and went to work as a gandy dancer on the Northwestern Pacific Railroad up near Eureka, California.[1] Of course, them days, gandy dancers, they never had a union. I stayed up there about fourteen months. I'd go work with the train operator at night. I'd help him and he'd teach me how to fire up the work engine. When he'd go in to Eureka on the weekend, he'd say, "Mac, you think you can take care of it?" I'd say, "Sure." I'd be running the engine up and down the siding. I was working it then with a steam shovel outfit. I ran the work engine until I run it into the cook shack. Then, son-of-a-bitch, the Chinese cook was going to throw me into a pot of soup and make soup out of me. So I didn't run the old work engine anymore. But by the end they was ready

to send me in as an engineer because I could run anything. I even learned to run the big seventy-ton Syracuse steam shovel. There wasn't anything on the railroad I couldn't run.

I'll never forget the time the road master come out to inspect the track. They'd always call me to be the chauffeur because I could run the speeder.[2] We ran all the way up to Willits and had dinner with all the big shots and came back. I tried to show off a little too good for them and I jumped the track with the old speeder. Then I says, "It looks like we have a repair job here." We got the speeder back on the track and we came in.

I used to run the speeder against trains, but I didn't have a watch [to warn me when a train was due]. So I made myself a sundial. I'd put a stick down and watch the shadows. One time I looked behind my shoulder and here the old passenger train was right behind me. I laid the speeder over, the train went on by, and I just put the speeder back on the track again and come a-pumping in. The worst thing I did was I come a-pumping in right behind the passenger train. Of course, the engineer told the assistant road master what had happened. The assistant road master asked me, "Let's see your watch." I says, "I don't have it. I left my stick out on the riverbank." He says, "That's all you got? Get in to town and get yourself a watch." That weekend I went in to Eureka. I came back with a Pocket Ben.[3] A dollar ninety-five was a hell of a lot of money in them days.

The road master asked me to see the watch. I showed him. He says, "That isn't a railroad watch." I said, "Well, it will do for me. I ain't a railroad man." Once our section foreman borrowed my watch when we had to use the speeder to beat a damn train out of a mile-and-a-half-long tunnel. He had a railroad watch and he actually borrowed my watch. After that, anybody had a Pocket Ben, they was really appreciated.

I ended up having quite an experience, but gee whiz, it'd be pouring, I was just a kid and they'd say, "It's your night to go out and patrol track." I'd go out with all the rattlesnakes. Of course, it was raining, there wasn't any worry about them. But we'd put a box of dynamite on the back of the speeder. There was a guy that taught me how to put dynamite caps around the band of my hat. You'd have a whole band full of these caps around your head. If you ever fell off the speeder, all you had to do is blow. You wouldn't have to worry anymore.

The job was that if there was a big rock or something in our way, you'd

take a stick of dynamite, get some mud and plaster, put a fuse in there, light it, and go on. Finally I'd had enough of this and of the wintertime rain around Eureka and I came back to San Francisco.

I went to work in a small planing mill in the city. The old guy there wouldn't even give you time to go to the restroom. Once I was doubled up sick and he wouldn't let me go. So I just took a piece of wood and give it a twist. I bent his saw and they run me off.

I ended up going to work for an office and business furniture company, M. G. West. I didn't like their kind of work too well. I didn't like anything where I felt penned in. I left M. G. West and got restaurant work as a dishwasher and busboy for the old Foster's Lunch System.[4] When the cook says, "You're a cook," I said, "Christ, I can't even fry eggs." He said, "Don't worry. You'll learn." I learned. I never knew people ate so many eggs in all the different ways they had of frying them there.

When I was out of work, I'd hustle sheets for old Randolph Hearst.[5] I had a camel-haired top coat, a Stetson hat, and Florsheim shoes.[6] I was the best-dressed sheet hustler there ever was. I wouldn't stand on the street corner and wait. I'd jump in the front end of a streetcar, go through the thing selling, and go out the back end of the car on the run. I did fairly well, too. I was the only sheet hustler smoking tailor-made cigarettes. Everybody else rolled their own.

Before I heard about the Golden Gate Bridge, the Bay Bridge was being built. I'd kept looking at it while I was working at Foster's Lunch. I said, "God darn, I want to see how that thing is built." At the bridge there was thirteen stairways and thirteen steps on the stairs. I always remembered that thirteen steps was the way to go to your gallows. I walked all of them up there and asked who the foreman was. A man says, "That fellow over there." I went over and I said, "I'm Glenn McIntyre. Could you use a good man?" He says, "Well, McIntyre, my name is McIntyre, too. You're hired. You got a pair of gloves?" I said, "No." He says, "Get down there, get yourself a pair of gloves, get back up here, and go to work."

The job was with a company pouring cement for the decks. I started walking a beam to get to the crew and I'll never forget looking down over the Embarcadero.[7] I seen them cars below and I says, "Oh, my God," and I froze on it. Here I was, sitting there, tears in my eyes, thinking, *I'll never make it.* A guy come along and he says, "What's the matter, kid?" I said, "I'm scared." He says, "Don't worry. Just scoot along and get over to the

side. The gang is out toward the middle." I decided I'd never let McIntyre [the foreman] know I was scared, so I went out there.

We were going to lay the rail for the dinkey to haul the cement.[8] A guy says, "We're stringing the rail now. Grab ahold of that." I was right on the front. I was leading everybody else, but they didn't know that they was carrying me. I'd been so scared walking that darned old beam, but I says, "God durn it, I don't want to worry about it anymore. Hell, if I can lead them, I can lead anybody." And I kept on going.

That started my career. Two days later I was carrying timbers over to the dinkey with another young fellow. He got scared in the middle, threw his end, and I went off backwards. When I fell, I threw the timber, too. You want to know where I ended up? Hanging on to the dinkey car with my fingertips. And the six-by-six I was carrying that I threw was on top of my fingers. If that won't make you believe in the Lord, boy, nothing else will.

I started running and jumping from beam to beam. The beams on the Bay Bridge were four feet across. When I got back, the boss says, "What's the matter, you gone crazy?" I said, "No, I didn't want to lose my nerve." Two days later, I was a gang foreman. The boss says, "Anybody that can be as crazy as that needs to be leading 'em." I run the cement vibrator after that, too, all the way through the upper and lower decks.

Once I was carrying a settling tank on my shoulder.[9] It could be windier than hell. This night a God darn gust hit me. There was a ferryboat under there, but I said, "It's either me or you." I jumped to the next beam and let the settling tank go. It was aimed just like a bomb heading for that ferryboat. I prayed while it went all the way down. Then it leveled out, went right over the boat, and missed it. There's another case where the Lord had his hand in. When they dredged the bay for BART, they probably picked up that tank with everything else.[10]

One time I went to the doctor's office when I was still working on the Bay Bridge. I had to get a cement burn doctored up. There was a call for the doctor to get to Pier 6 in San Francisco. The doctor says, "Sit there and wait until I come back." He come back and said, "Swept him up in a basket." [After he'd treated me] I went up on the job and says, "Where's my partner?" A guy said, "Down in the hole." It was him that they swept up. He'd gotten scared. They was riding a dinkey out and they was coming up on another dinkey like they was going to run into it. He

thought it was going to hit, jumped, missed the beam, and went straight down and landed on Pier 6. That was the end of my buddy. But as an ironworker, you kept on going. You never lost your nerve. God darn, you didn't give a damn what it was, the job had to go on. The next day you come back to work.

I went over to an ironworker one day and I says, "How could you join the union?" He says, "You think you can make an ironworker? You may make one, but you'll never be one." That made my determination more. So when we finished the cement on the Bay, I went down to the ironworkers' Local 377 union hall. I said, "I was one of the laborers up there on the Bay Bridge. I'd like to join the union."

I asked for an apprentice card. But they'd been watching me. The man there says, "You don't need no apprentice card. Take a journeyman's card and be happy." I was still working when the one that said, "You may make a bridge man, but you'll never be one," was laid off. And I made a pretty good bridge man, because afterwards I worked on the Golden Gate Bridge right up in Jack Turnipseed's gang, right up in the front point.[11]

With them old-time ironworkers like Dago Frank, Steve Carter, Hooknose Smitty, and Tobacco George, if you could work into their gang, God darn, boy, you was all right. You had to be all right to work in their gang. Otherwise, they had tricks of getting rid of you. If they didn't like you, they'd urinate in the coal bin for the heater.[12] When they threw that coal in the forge, you was going down the road. You'd give up quick. I don't think there's anything this side of a slaughterhouse that smells any worse.

You didn't know what modern sanitation was back then. There were some bucket latrines, but I don't remember ever using one. You could slide down a column and if there was no ferryboats going under you, you went. On the Bay Bridge, they didn't, because the ferryboats is going by and there's hundreds of people looking up. But when there was no ferryboat, you didn't worry. It wasn't going nowhere, just in the bay. Usually you'd have an old newspaper or something in your pocket. As a man, you didn't have no problem with that. Hell, there was no women, especially on the Golden Gate Bridge. I never ever saw one. We never had black workers, either. In them times, we didn't have too many black ironworkers that I can recall. I don't remember ever seeing one on the bridge.[13]

When they sent me out to the Golden Gate Bridge, the first place they put me I didn't have a net under me. That was before they stretched

the safety net. In the raising gang on the Golden Gate, you didn't have nothing under you but the water. It was still quite strict on your safety there, though. We used to count the guys that would go down on the Bay Bridge.[14] It did give you a good feeling on the Golden Gate to have that net under there once it went in.

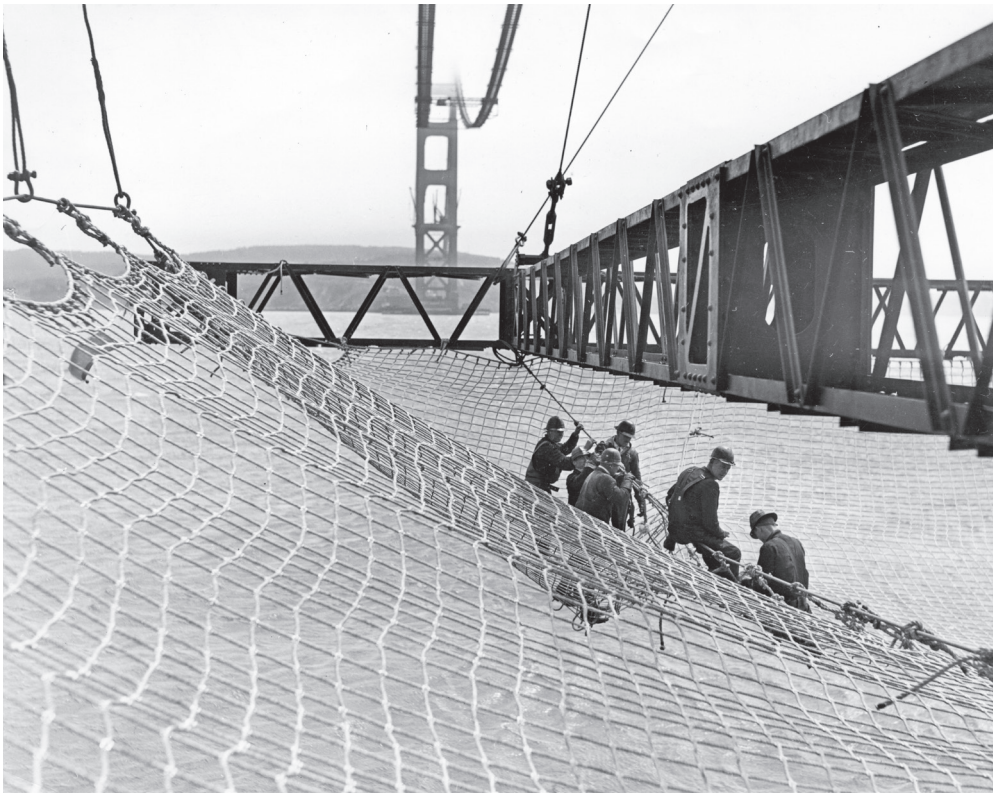
We'd jump down in the net and clean it out of any debris like rivets so that if we ever did fall, you wouldn't hit something. Running around in that net seemed like you was climbing uphill all the time, and you was going downhill. I didn't see anybody actually fall into the net. You didn't see everything that went on during the day. You was working. If you was watching it for everything else, you'd get run off the job for sure.

In driving rivets on the Golden Gate Bridge, you had a riveter and a bucker. Bucking, you'd stick the rivet and put your bucking bar on it. A bucking bar is solid steel with a little gooseneck on it so you can get the rivet in in different positions. The gooseneck had a die the size of the rivet. Whatever size rivets you'd be driving, why, you'd try to get the bar [with the right size of die] for them. With a rivet in place, the riveter would start driving with a hammer.

The forge was full of hot rivets. They'd have 'em stacked around the rim of the coals, preheated. They was heated to a cherry red. You'd take one off just like you was serving hamburgers. They'd throw the rivet and a man would catch it in a catch can. He'd hand it to you and you'd stick it in the hole. Sometimes they'd start driving ahead of time before you fumbled the rivet in. Then you'd catch hell. Them old guys, they didn't want to lose a rivet 'cause they had to heat another one then to take its place.

If a bad rivet cooled down too much, you'd have to take after it and use the hell dog on it. That's a 120-pound pressure gun. They're the same as a riveting gun, only it's a big one. A riveting gun had 90 pounds of pressure on there. With the hell dog, you'd drive the rivet back out. Sometimes it'd come out of there just like it was coming out of a shotgun.

At that time, the gloves that I used to wear was goatskin. They were more expensive, but you could get a burn on one and you could rub it and it would come back soft again. The old mule-skin gloves got hard as rocks after you had a few burns on 'em. The goat-skinned gloves were pliable. It was the mark of a good ironworker if he was wearing those. It was just according to what you could afford and how much you wanted to spend



Workers in Strauss's safety net, 1936. "It did give you a good feeling on the Golden Gate to have that net under there once it went in," Glenn McIntyre remembered. The net saved the lives of nineteen men who fell into it. Courtesy of San Francisco History Center, San Francisco Public Library.

on gloves, because you wore 'em out quick, especially in the connecting gang. You'd never ever see a connector wearing a pair of canvas gloves.

If some of the scale from a hot rivet got into your bib overalls or your boot, like when you was in a squatting position and your boots is open, you didn't dare lose that rivet. Sometimes the scale would go in your shirt and go down your stomach. You'd be there trying to wiggle away from that heat. But you'd stay there and burn. You'd never ever give that rivet up. You'd try to turn the scale loose with one hand, but that didn't usually work. You'd stay there, and there's quite a few scars over that. It'd leave a mark on you.

To work on bolts, we had old-fashioned power vane wrenches that were air-driven.[15] They was dangerous things. Usually two men worked one. If you didn't get a nut right with it, the other fellow would take it with his crescent wrench and turn it so it would go into the nut. Then, if the first man happened to hit the power vane trigger about the time you got it on the nut, the crescent wrench was gone. I lost a crescent wrench out into the Golden Gate somewhere that way. It cost a $1.95 for the best crescent wrench then. I still have the crescent wrench I bought to replace the one that I lost out there. I never lost another one. You'd usually always have a crescent wrench for emergency and for small stuff. You carried it in your back pocket or had it hanging on your belt. We had harness snaps and we'd have our crescent hanging on that. I used that crescent wrench all these years until I quit ironworking. Gee whiz, it cost $1.95. You wouldn't want to lose that.

Once on the Golden Gate, I was in the front point on the Marin side getting the nuts off of bolts. I felt the bridge shudder. The boom was swaying back and forth. Finally it went over the side. I looked for my buddy, who was hooking on. He was right under the headache ball and it hit him in the head. That was the end of him. I ate lunch with him at noon, and at two o'clock I went out and swept his brains into the Golden Gate.[16]

With things like my buddy's death, you'd leave your tools and go home.[17] I got hell that time. I left the one impact-style wrench we had on the Marin side.[18] Now everybody carries one; but not in those days. I said, "I don't give a damn what one costs. I lost my buddy." Still, you went back to work the next day. You couldn't be temperamental working there. An ironworker goes home for the day in respect, but the next day he comes back and he's supposed to have forgot about it. The show's got to go on. But things like that you never forget.

One time on the Golden Gate Bridge when I was with the Marin-side raising gang, my partner was putting pins in. I was laying on the diagonal and sticking the pins. My partner started missing his blows and he missed all right. He come bull's-eye right between my eyes with that eight-pound beater [mallet]. He didn't come down to help me or nothing. I decided I didn't want to work with him no more! I stayed there and shook the stars out. When I got 'em all out, I climbed up by myself and went to see the superintendent. He says, "Let's run you to Sausalito [where the ferries that ran between Marin and San Francisco were docked]." The

ferryboat was waiting for us there. I never had treatment like that where they were holding a ferryboat for me. All the time I was wanting to get back on the job. They thought I was delirious.

We got to San Francisco. An ambulance took us to St. Luke's Hospital. Same thing over there. I wanted to get back on the job. It took three nurses and four doctors to get me into bed. But they finally did and hid my clothes. I had to stay. The next morning I was glad I was there because I had to feel about two feet out to try to find my head. I had a couple of good black eyes, but three days and I was back on the job. One man at the hospital said, "Hell, you're better off working than you are here."

ALVINA McINTYRE

The time Glenn was hit in the head by a hammer someone drove me to St. Luke's Hospital in San Francisco. I went right past the door when they told me the number of the room he was in. I walked back to the desk and I says, "He's not in there. I saw a fellow laying there all swollen up." She says, "Well, that's him." This nurse at the desk took me to the door. She says, "Right in there." I didn't recognize him.

When my husband Glenn kissed me good-bye in the morning to go to work on the Golden Gate Bridge, I never knew if he was coming home for dinner. That was my feeling the whole time that he worked there. If he'd leave the house a few minutes later than usual, then I knew he would have to speed up and run like hell up to those girders, and that was another thing that bothered me. I was always glad to see him when it was time for him to come home. You had to have strength and bear with it. You have children. You can't break yourself down. You got to keep on going.

GLENN McINTYRE

In those days, we didn't have respirators or anything to protect us from the lead. Still, we never thought nothing of that until we'd get cramps. Then the doctor would tell you, "Go home and drink some milk and get back on the job." That happened to me one time. After that, I was pretty much aware of the problem. Still, they didn't give you any protection in those days. You depended on the wind! They didn't care. It was, "Get the job done."[19]

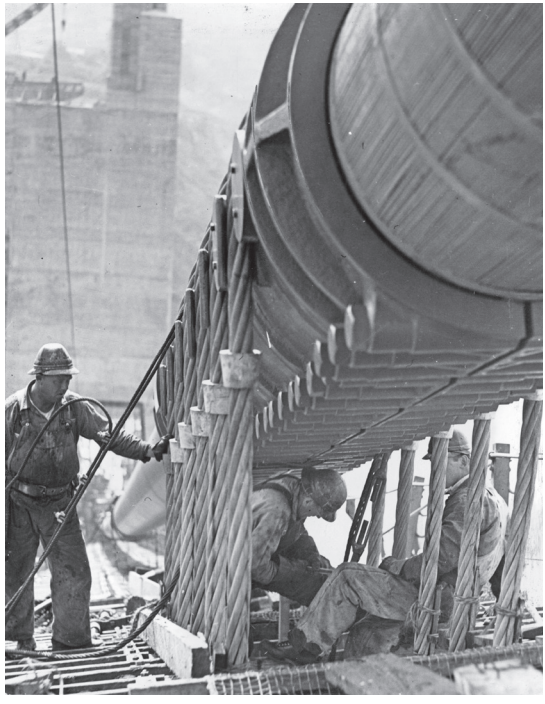
Hard hats were required at all times on the Golden Gate, though. The ones we used was like the old miner's hat. It was like the old-time fireman's hat, actually, with a smaller bill on it. It was made of fiber, but it was hard, not pliable, and it was very strong. They was easier to get around in than the ones we used on the Bay Bridge.[20] They were surrey black. Some of the pushers or the superintendent might have some silver, red, or anything painted on to let 'em know he was the boss. But the hats were black originally and the ones we wore was the black ones. That was what they furnished you with. The hat had a specification of safety. You couldn't wear your own hat too much. There wasn't too many that owned their own hat in them days anyway. You had a string on there because sometimes you'd get 'em knocked off. It was easy to be working there and bump something and get 'em knocked off and heck, it was a long way down. They could go right through the safety net, too.

I imagine there was controversy about the color the Golden Gate Bridge was painted, but that was for other people. I don't think it mattered a hell of a lot to the ironworkers themselves. It may have been important with the politicians to have something to say, one against the other. But the ironworkers didn't care what color it was. Payday and five o'clock was what they was looking for. The color didn't make no difference as long as the green got in your pocket.[21]

Working on the Golden Gate, we was going from the Marin side to the San Francisco side. We met in the middle. She come right together just the way they planned on. From there, we'd start adjusting the suspender cables that hold up the roadbed. You had to get the proper tension on a cable. We had to use big water[-operated] jacks to jack the suspenders either one way or the other. That jack was monstrous. It was powered by water and air.

When I was working on the bridge I lived in San Francisco. They had an old fishing boat that would take us across the bay to Sausalito on the Marin side in the morning. It would be so foggy you couldn't see your hand before you. One time when we was going out, everybody started to holler at the skipper, "God darn, you're going the wrong way." He was out there, the fog horns was blowing, and hell, we was going out in the ocean instead of going to Sausalito. Finally he turned back. Sometimes coming from there at night, we'd end up missing our pier in San Francisco. We'd find it after a while.

Installing the last girder on the Golden Gate Bridge, November 19, 1936. "She come right together just the way they planned on," McIntyre recalled. Courtesy of San Francisco History Center, San Francisco Public Library.



Workers attaching suspender cables to one of the main cables, October 1936. McIntyre remembered adjusting the suspender cables using huge water-powered jacks. Courtesy of San Francisco History Center, San Francisco Public Library.

I often wondered afterwards how the heck I ever worked in that cold. Out in the breeze, you had a sweater underneath your regular hickory shirt. I always wore the old hickory, the one with the gray and black stripes. That was the old days and you got the most durable shirt. And it was warmer. They was more of the heavy denim type of shirt than most.

Sometimes you had three pair of bib overalls on. You wore them old denim overall jumpers. The ones that was more prosperous had a pair of big heavy denim Carhartt's [overalls]. They were like heavy canvas. They would retard burns better, they had padded knees on 'em, and they lasted longer. I never cared for 'em too much. They was too heavy for bending up and down. But they was warm. The farmer's blue denims were cheaper, 98 cents some days. You'd break the bank when you'd go down and they raised the price to a dollar and a half.

Them old fellows would have newspapers wrapped around them inside to break the wind. I don't know if any of the old buggers had a little mickey [bottle of liquor] on 'em, too. Some of 'em worked better when they were half swacked. If you was fortunate enough to have an old pair of wool dress pants, you'd have them under there, too. Sometimes you wondered how you could move. We didn't have thermals in them days. We had one-piece union suits with three holes—one for your neck and the others for front and back.

As a rule, you didn't have to take anything off out there. You was always looking for some more clothes to wear. That old-fashioned union suit underwear kept you from getting pneumonia because you got so hot working inside the bridge's steel chords, with the hot rivets and the sweat coming off you, and then you'd come out of there and you'd be out in that wind that would cut right through you. In the winter, there was icicles hanging up on there. In any case, the bosses never complained about how many clothes to wear. They just said, "Get the job done." That's all they were worried about.

You'd dress warm above, but you'd still be cold and your feet would be freezing. We'd use wool boot socks. Wool wouldn't burn as quick as cotton if you got hot scale down there. We had a mule-skinned boot, what we used to call the bridge man's boot. It was laced right to the toe. That way you could slip 'em on easier if you had extra socks on. They withstood any chance of getting a rivet burn and they was tough and comfortable.

We always used rubber soles. You'd break your neck out there with

leather soles, especially when you was climbing and you had your eight-pound beater stuck in your belt and your wrenches hanging on you. The soles would usually be smooth. I never liked the ones that had bottoms like automobile tires because you was too apt to trip with them. You'd also rather have them smooth and flexible because sometimes when you was coming down, you'd wedge your heel into the flange so you wouldn't slide too fast.

Rain could trip you, too. You'd look out the window in the morning. If it looked like rain, you wouldn't even go to work. Not if you wanted to stay alive. The ones that would go to work we used to call "hungry." Of course, if it's just a shower, you'd duck out. But in those days they used oil in the paint, and that old red lead paint was full of oil. Step on that in the rain and it was like stepping in grease. You could work, but you had to be more cautious, and it wasn't advisable. You always lived a little longer if you didn't take those kinds of chances. I'd rather lose a day than my life.

Building the Golden Gate Bridge, you wouldn't feel an earthquake. With the wind and everything that's always blowing there, you wouldn't know if there was one or not. But it was a good job. We was well paid. We got eleven dollars a day for eight hours. That was good wages in those days. The bricklayers was the only ones in the crafts that made more than the ironworkers at that time. On the Golden Gate, we didn't get much of any overtime. It was an eight-hour day and you was glad of it. Laborers were getting only about five dollars a day. If you went up from five to seven, that was a good day's pay.

After the structural work on the bridge was finished, we were laid off. I went home to see my mother and the family in Washington over the Christmas of 1936. Then I went back to the ironworkers' Local 377 hall and got sent out to work at Treasure Island in San Francisco Bay where they were building a hangar for a Clipper flying boat. Once I was off of the Golden Gate and working somewhere else, I never gave it much thought. I don't even remember where I was at the opening day of it in May 1937. I was working some job. I wasn't about to take a day off.

ALVINA McINTYRE

It was a gala affair, opening day. I was there. They had concessions. I bought these hats on the bridge. You could buy candy and ice cream.

Everybody seemed happy. They were laughing and everything. I had my kid there. He was only seven. He was so excited. Not once did he say he was tired. Oh, I had such a proud feeling because my husband worked on there as a high climber. It was a great bridge for sightseers, too. Everybody that came to visit us wanted to see the Golden Gate Bridge. So off to the Golden Gate Bridge we went.

GLENN McINTYRE

Treasure Island was the only job that was going then and we had a lot of extra ironworkers around after the Gate was finished.[22] But while we were building the Golden Gate, ironworkers was like millionaires. You could walk in anyplace with your hard hat on and your face black as soot, and they would always acknowledge you there. They wouldn't run you out even if it was a classy restaurant and you walked in dressed that way. They knew that eleven dollars a day was a good scale. While I was working on the Golden Gate, I finally bought a newer car. It was a 1931 Chevrolet convertible. When I went to work, I only had a little old Ford.

After the Clipper hangar job, I followed steel and worked on the Pitt River Bridge in Northern California. We used that same net they pulled out of the bay after ten men died on the Golden Gate when the safety net tore in 1937. Some of it got torn up, but they cut the good section out. I jumped into the net on the Pitt River job once to help Elmer Olson when he got knocked into it and broke his leg.[23]

The Pitt River Bridge was five hundred feet above the river. You looked down and the river looked like a crick down there. They said Elmer fell a hundred feet, but I didn't see where it was that far or I wouldn't think I'd been crazy enough to do what I did. I didn't recall jumping, but I asked the fellows afterwards. I said, "Jesus, how the hell did I get down there to get him?" They said, "You damn fool, you jumped into the net a hundred feet down." The net drooped way down there. That kind of weight, you couldn't stretch it too tight. They said, "You jumped, you never ever thought anything of it." Elmer was close to the edge, close to rolling out. By my hitting the net, he was thrown back in. Then some of the others got down there and got him into a basket to bring him back up.

Years later I worked on BART. I was always interested in getting something operating and I wanted to make sure to get that thing running. So

Alvina McIntyre and her son at the Golden Gate Bridge's opening celebration, May 27, 1937. Approximately two hundred thousand elated people walked across the bridge that day. Courtesy of Labor Archives and Research Center, San Francisco State University.

I went over there with the structural gang. I trained all these kids and then taught them to drive heavy maintenance equipment. One night I had my helper there. We were working on the tunnel under the bay. I says, "You will probably never meet anybody with my experiences." He said, "How is that?" I says, "Now I'm working on BART. I've ate my lunch two hundred feet above, and now I'm eating my lunch two hundred feet below the bay."[24]

John Urban

CABLE SPINNER

They handed me the end of this galvanized wire to take to this tower top. The wire was just a little bit smaller than the lead in a lead pencil. That's the way that cable is built. . . . That first day, I looked at the catwalk and up to the top of the tower and I says, "Am I going up there or not?" I gritted my teeth and said, "Here goes," and I took off. I went up to the tower top. **JOHN URBAN**

John Urban was the son of Lithuanian immigrant parents living in Oregon. Born in 1910, he labored in the northwest woods as a youth. He came to San Francisco from Oregon early in the Great Depression. Urban did stints in a restaurant and as a truck driver before becoming an apprentice ironworker on the Golden Gate Bridge in 1935. On the bridge he initially worked as a cable spinner. Although he was seriously injured in 1936 while unloading steel, he returned to the Golden Gate project and was employed there through the spring of 1937, when the bridge job finished. Urban remained an ironworker until retirement. I interviewed Urban in San Francisco, California, on April 15, 1987.

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My dad was gung-ho against war. He was an orphan from Lithuania who took off to get away from the czar's army. That was the day the Russians

conscripted everybody. This was before the First World War.[1] Dad was pretty young to be taken into the army and he didn't want any of that. So he went to Canada and got into this country from there. He ended up in Oregon.

One time we went over to the St. Helens Pulp and Paper Company mill looking for jobs for my brother and me. The superintendent says, "We need another war to kill off all the young people so we'll have enough jobs for the ones that are left." My dad got mad after we got out of there. He said, "That kind is crazy. Who wants war?" That was the attitude some people had. They didn't want war, they didn't want to go in the army. That's the way I feel about things now [1987]. I don't blame some of these kids for protesting.

My mother was also from Lithuania. She came through Ellis Island just to go to America. My parents met in Oregon City. Dad worked in the sawmills there. I was born in Portland, Oregon, on December 26, 1910. When I was in the first grade of school, my parents moved into what I call the stump ranch. They bought a logged-off piece of land near Scappoose in rural Oregon. He cleared it and they made a living. My dad started out with a little small house. Then he built a bigger house with three bedrooms upstairs and one downstairs. He built a barn, had cows, raised his own hay, and grew vegetables and potatoes.

Scappoose is twenty miles north of Portland on the Columbia River Highway. We were seven miles off of there. The road was graveled for three or four miles. The rest of it was dirt, ruts, and mud holes. There was a logging camp three-quarters of a mile from where we lived. The workers there—buckers, whistle punks, donkey operators—all stayed in these bunkhouses.[2] They had cookhouses there and they fed you good. When the workers would get their cars stuck in a mud hole, my dad would take a horse and charge 'em a little money to pull the cars out and haul them down to the gravel road.

I went to grammar school, then to a little over a year of high school. I left home when I was fourteen and went to work on a farm milking cows at night. I was still going to high school. I wanted to get away from life back there in the sticks, but then I worked in the woods. I was what they used to call a whistle punk. They used to give signals to the donkey operator with a wire that's hooked up to the steam whistle on the donkey. They'd give signals like go ahead, back up, tight lines, and all these

other words that you use in the logging industry. The whistle punk had to string wire out there in the woods maybe a thousand feet to where the logs were down and already cut and ready to be pulled in to a landing for loading onto the train. Then they'd haul the logs down to the Columbia River and dump 'em. There were no radios or logging trucks then like they have now.

In 1929 and early 1930, it cost us a $1.50 a day for board, meal, and insurance. It was just the beginning of insurance compensation, and it didn't amount to nothing. This was just a forerunner to what we have now. But for a boy then, working in the woods was pretty good. You'd have two or three kinds of meat on the table, and vegetables and fruit. You'd be out there with that fresh air and a lot of oxygen and I couldn't believe how much I could eat. I got out, though, when the Depression set in and jobs weren't so plentiful. I also always wanted to go to California and I didn't like the lousy weather in Oregon. I was headed for Los Angeles, but I got to San Francisco and went to work in a restaurant.

I come down to the city in May of 1930 with a fellow that had been there before. He'd worked for Compton's restaurant and knew the people there. The first time they needed a dishwasher, I went to work dishwashing. I moved up to busboy, then counterman.[3] When I was working in the restaurant, the Cooks' and Waiters' Union was already in there. We went on strike for better conditions and a forty-hour week. I did picket duty. The owner, Gene Compton, accepted President Franklin Roosevelt's whole NRA program. He signed up for it. We got a raise and we was working five days a week instead of six. Compton's was the first restaurant in San Francisco to get the NRA emblem.[4]

Our Compton's settlement came shortly before the 1934 West Coast maritime strike. We helped out on the '34 strike, too. We aided the longshoremen as much as we could. All the unions backed them when they paraded up Market Street just before the San Francisco general strike. I was there that day. I was working in a restaurant right down by the Ferry Building. The longshoremen were just out there walking. They didn't cause any ruckus or problem. They deserved what they won. That Harry Bridges, their leader, couldn't be bought off. That's what the ship owners didn't like.[5]

During the San Francisco general strike, pretty near everything closed down. It looked just like it did on the Golden Gate Bridge when the

people came walking across when it opened in 1937. The people were walking right down the middle of the street in '34 because there was no streetcars running. The sidewalks couldn't hold 'em all. And there wasn't very many cars like there is now.

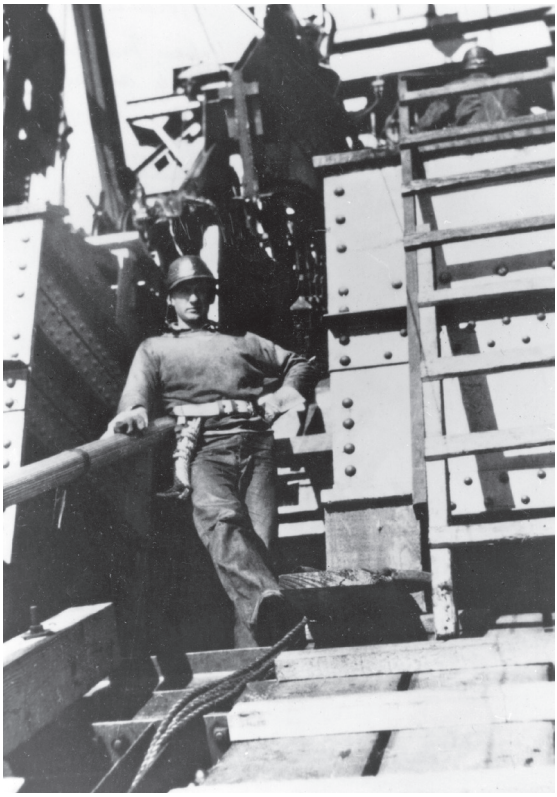
I voted for Franklin Roosevelt for president in 1932 and 1936. He did the workingman a lot of good. I used to vote every time. I was not involved in politics, but I had bumper stickers or something like that. After a while, it got so hard to get 'em off the bumpers I didn't put 'em on. I voted Democratic pretty near all the time.

At Compton's we ended up making pretty good money. In those days, the people that worked in City Hall were getting a hundred dollars a month, and I was getting twenty-eight dollars a week and my meals. You could get rooms in a livable hotel down in the Tenderloin then that were a lot better than they are now [1987]. I lived there and in different places in apartments.[6]

After Compton's I went to work driving a truck for a nursery at Colma, California, just south of San Francisco. I only got thirty-five cents an hour driving a dump truck, but I'd just got tired of Compton's. I was trying to figure out some way I could become a carpenter or a sheet-metal worker or something like that. Where I was living is how I got a break to get into the ironworkers' union. The business agent for the union lived in the back apartment of the building where I had the front apartment. I'd recently quit the job down at the nursery. I was out of work. The business agent's wife says to him, "Everybody else is getting apprentices into the ironworkers. Why don't you get John work?" So he sent me out from the Ironworkers' hall to the Golden Gate Bridge to work on the rigging of the two main cables.

It helped that I belonged to the Cooks' and Waiters' Union. That's the evidence I had to prove that I lived in this area.[7] But that didn't mean nothing. I knew a lot of guys that come from New York and where have you, and all they did is have their landlords swear that they'd been living here for a year or whatever was the requirement. That's the way it was, and nobody said nothing. As an apprentice I got two-thirds of a journeyman ironworker's scale, which was $1.25 an hour. We worked from eight to four-thirty with a half-hour for lunch.

This was in 1935. It was November 11 when I went out there on the bridge. I never will forget that because it was Armistice Day. They didn't



John Urban, cable spinner, near the top of one of the Golden Gate Bridge's towers, probably early 1936. Once leery of heights, Urban overcame his fear while working on the bridge. Courtesy of Labor Archives and Research Center, San Francisco State University.

celebrate it then. Later they called it Veterans Day.[8] That was also the first place I ever had to take a physical. After they gave us a talk, got us all signed up and checked with the doctor, they handed me the end of this galvanized wire to take to this tower top. The wire was just a little bit smaller than the lead in a lead pencil. That's the way that cable is built.[9]

Before, I was always kind of leery of heights. When I worked in the woods, I would of never been a high climber. Twenty or thirty feet didn't bother me, but it seemed like when I got up higher, I'd even hate to look over the edge of a building. I belonged to the YMCA in downtown San Francisco, and I even hated to look over the side of that. Then I got out there to the bridge. But you'd be surprised. After a while, sometimes, you get used to it. Some of those bridge guys were just like a monkey on that iron.

That first day, I looked at the catwalk and up to the top of the tower and I says, "Am I going up there or not?" I gritted my teeth and said, "Here

goes," and I took off. I went up to the tower top.[10] Then another crew of guys come over from the Marin side. They took the end of the wire and we just stood there and pulled slack. Then the rest of us that were spotted alongside 'em went clear down to the Marin anchor block and back to the San Francisco anchor block, and they were then able to put the wire on the spinning wheel. Then they did the spinning mechanically. But they had to get that first wire over there by hand. It seemed to me like they could have pulled the wire over with a wheel going slow. But they didn't want to take any chance of scraping the wire because anytime they scraped the wire they'd [have to] cut that section out. Then they'd put a ferrule in to splice the wire.

I worked most of the time up on the top of the tower for the John A. Roebling's Sons Company. In making the strands for the cables, we had to keep the wire under control when the wheel spinning the wire come over the bridge tower. They had what they called a spinning sheave. It was a round pulley with a groove in it so the wire would fit down in there and not jump out. There was two wires because there was a live wire and a dead wire, as we called it. One wire kept going and the other one set down. We had to drop the live wire in the sheave, being sure it went down in the pulley and didn't lay down on the iron and start tearing the galvanize [zinc coating to prevent rust] off. Then we'd drop the dead wire down in the tower's saddle where we were making the strands of the cable.

They had to do that all the way down along the catwalk, clear to midspan of the bridge and back up over the tower and down the other side. When the sheave came back, then we'd have the wire that was live going that way and the dead wire coming back. We had to keep those wires straight. They couldn't be crossed. They had to be right in perfect line so that one sat inside the groove of the next one. If you had wires crossed, any movement would wear that galvanize off and wear the wire out. That was a no-no.

Working on the bridge, I don't know how some of those guys even moved, they had so many clothes on. But you had to dress pretty warm. The men mostly wore long-handled underwear.[11] This was before the days of thermal underwear. They're not that hot unless you wear a T-shirt under 'em. A lot of 'em wore coveralls with jackets. You didn't know what weather you was going to get out there.

Sometimes when we was working for Roebling on the tower top, it would be nice and warm. We'd be in shirtsleeves. This fellow Pinky who was working the first quarter point, as they called it—although it wasn't a quarter of the way down—wouldn't be over a hundred feet below the tower. But he was freezing and he had all the clothes on that he had. The wind was blowing there, and there wasn't a breath of wind blowing on the tower top. When the spinning wheel would shut down or something, he'd come up and get warm. He'd say, "Boy, it's cold down there." I believed him. I remember that he did that more than once.

We had all kinds of gloves. These canvas ones come up to here [*taps the middle of his forearm*] because, working around iron, you get your wrists all scratched up. They was all right for certain things. Other things, they weren't so good. This was a heavier canvas. It wasn't like these cotton white gloves. This was a kind of imitation leather or maybe part cloth and part leather. It was fuzzy on the outside and smoother on the inside so it wouldn't hurt your hand. Other fellows wore leather gloves. I wore leather gloves for a lot of different jobs.

Roebling and Bethlehem Steel, which I worked for on the bridge later, furnished us with hard hats. They were kind of like plastic, but they had little fibers in 'em. We had the first ones of that kind that come out. They had these other brownish-looking ones that were rounded with a brim. You had to buy your own. Foremen had those if they wanted to be fancy-looking. But the brim stuck out too far and got knocked off too easy and if a rivet or something would hit those, they could shatter. These we had would only dent a little bit. They were also better if you come up under something and banged your head. These hats were black with a little protrusion to protect your ears. I seen 'em demonstrated by dropping rivets and bolts through pipes from way up and I was convinced. I didn't want one of those brown ones. The black ones saved a lot of hard knocks.

When we was working for Roebling, they had portable toilets on the tower top, although down along the catwalk, guys usually went just over the side. What else could you do? If you had to urinate, that was all. If you had to do the other business, well then, you had to find a place. Some of the guys who were just below would come up to the

Cable spinners like Urban at work on the bridge, 1936. Urban described the careful attention to detail that cable spinning required. Photo by Ted Huggins. Courtesy of California Historical Society, Huggins Collection, CHS.Huggins.012.

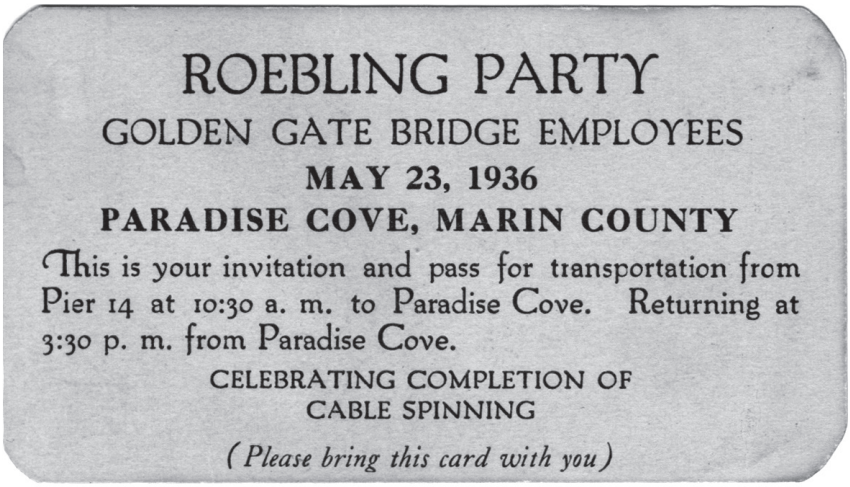
top of the tower. Other guys would go down. For the toilets on top, they had a cable so they could hook up about four of 'em at a time. They had a crane on top of the tower that you could use to hoist about anything you wanted up there. To clean them, they'd just drop 'em down. They cleaned 'em right there, right over into the bay. In those days, they weren't particular. When the toilets was cleaned up, they'd send 'em back up again.

When we was working on the cables, the only thing that stopped us was the wind. We worked rain or shine. When it was raining working for Roebling, we wore raincoats. But if the wind come up it would catch the wheel, which was about four feet in diameter, and turn it and the wire would jump off. Then we went home. You were paid for only the time you worked, too. Later, when I worked for Bethlehem, we didn't go to work on a job when it was storming. But like I said, just the wind is all that stopped us with Roebling. They wanted that cable in. They got it under their time limit, too.[12]

Roebling give us a big compliment after that. They told us we were the best bunch of ironworkers, and that they put more wire in every day than on any other jobs they'd ever worked. So we had a feather in our cap there. They give us a party up at Paradise Cove, too, that was a doozer. They took us up there by boat. There was all you could eat and all you could drink. They had barbecued steaks. Everything was really good. All the big shots were there, but there was very little speeches. There was no hanky-panky, either; it was just a party. When it was all over, they brought us back on the boat. There was no bonus. Instead, they give us that party and everybody was happy. I guess a lot of 'em had never seen anything like that. It was the first party I'd ever seen like that, so I was quite impressed with it.[13]

After my Roebling cable job is when I went to work for Bethlehem. First I worked down on the pier, on the bottom of the bridge where they had a dock built right there where the caisson was. Bethlehem used to bring the steel for the bridge roadway over from Alameda on a barge. It had come by ship for Bethlehem from Pennsylvania. It was all fabricated there and offloaded in Alameda at the yard there. However rotation this iron

Workers using a cable squeezing machine, Golden Gate Bridge, 1936. After spinning was finished, the main cables were compressed into their final shape. Photo by Ted Huggins. Courtesy of California Historical Society, Huggins Collection, CHS. Huggins.041.


ROEBLING PARTY
GOLDEN GATE BRIDGE EMPLOYEES
MAY 23, 1936
PARADISE COVE, MARIN COUNTY
This is your invitation and pass for transportation from Pier 14 at 10:30 a. m. to Paradise Cove. Returning at 3:30 p. m. from Paradise Cove.
CELEBRATING COMPLETION OF CABLE SPINNING
(Please bring this card with you)

Urban's invitation to the party thrown by the John A. Roebling's Sons Company for the Golden Gate Bridge's cable spinners on May 23, 1936. Fifty years later Urban still treasured his invitation to Roebling's Marin County event celebrating the completion of the company's cable spinning work. Courtesy of Labor Archives and Research Center, San Francisco State University.

went up [or order in which it was installed], they'd bring it out on those barges and then we'd off-load it. They had a crane set up. They'd take this iron up onto the bridge deck and they'd start erecting the roadway out from there. There would be five hundred ton of steel on that barge when it come in. We'd unload a lot of it on the dock. They had a ten-part line and with all that cable going through all the blocks they needed, it would take quite a while to get the steel up onto the deck.[14]

I did get hurt down there. They needed a big block of steel. It probably weighed a thousand pounds or more. They unloaded it off the barge and set it down on the dock. They had a four-inch pin on the end of the block where they put on the eye of the cable. There was a handle on there to pull the pin out with. I was doing the tag lining of all the steel that was going up so it wouldn't spin in the wind and get the cable tangled up.[15] I had to keep tension on it so that the piece of iron would go straight.

I was on top of one of those floor beams, which are about twelve feet high. I was standing there so I could see what was going on. This fellow didn't notice that the handle on the pin was rusted out where the threads were. He put the tag line in this handle. When the iron

started to turn, I give the line a pull. The handle broke. When I fell, I gave myself a flip with my foot. The dock was planked over, but steel beams were sticking up two or three inches above the plank. I hit the beams right on my face and on my feet. I mashed my nose and broke it. My wrists were so sore from where I had protected myself. One toe got about four times bigger than normal. They put me in the hospital for I don't know how many weeks.

When I come back to work they put me up on top on the deck. Now I started punkin'—that's what they called it—rivets and bolts out to the riveting crews. We had carts that run on the beams that run longways with the bridge. The carts were four-wheelers just like on a regular railroad. We'd load 'em with bolts and rivets and push 'em out there as far as we could go. Then we'd off-load 'em and distribute 'em to the construction points. Sometimes there was a thousand rivets or more at one point.

We'd also get coal for the rivet forges, help the crew with moving the scaffold, and so on. They had the net in there then and we went out in it. The apprentices and the riveting crews would get careless and drop four-by-fours down there and boards and what have you. So they'd tell us to go down in the net and get those things cleaned out. Some of 'em would go sliding down a beam. Most of us just jumped off and into the net. It was just like walking on a trampoline. You was bouncing up and down. We'd pick up all the stuff and have a guy with a rope pull us up and get us back on top.

There was a lot of things going on. There were make-up bolts that were used to put the iron together and hold it in place. We'd pick up those bolts and they'd use them again unless the threads were all messed up. Once in a while we'd drop a few on the Japanese merchant ships when they'd come through because the longshoremen said, "All the scrap iron we're selling to Japan is going to come back in bullets."[16] We give 'em some they wouldn't have to take to their dock. Those bolts and burnt rivets and so on would hit that boat down there like a machine gun. Pretty soon the Coast Guard would be out and they'd say, "Don't drop things anymore on those Japanese ships."

I was working the day Kermit Moore was killed, October 21, 1936. We weren't too far apart when this happened. I was on the San Francisco side and Kermit was working on the Marin side. I looked up and here this boom, instead of being up, was laying on the deck. A bunch of guys were

ganged up there. You knew something had happened. When the boom come down it hit Kermit, sheared his face off, and killed him instantly.

We called it a day and took off. That seemed to be the habit of the ironworkers. In the woods, it was different. They never stopped there. They killed too many. Kermit was about my age. He was a nice, easygoing, well-mannered fellow. I used to see him at the union hall and talk to him. I especially liked him and I was shook up when it happened. That was the first one as an ironworker that it happened to.

In February 1937 I was looking for new work. They were pouring concrete on the bridge roadway out toward midspan. I was out there just a day before a platform collapsed and tore the safety net from midspan clear back to the San Francisco tower. Fred Dummatzen said, "Why don't you come down here? There's no work for the apprentices, but you might as well come out here and work as a laborer." I says, "No, Al Maillioux don't like the scaffold you've got there and I don't trust it either." Then the next day, that's when it happened. There was ten men killed in that deal.[17]

When we got through on the Golden Gate Bridge there was about thirty apprentices. Maybe six or eight months after the bridge was completed, I was the only apprentice out of the whole bunch that had a paid-up union card. I managed to get work on the painters' little walkways that are around the bridge's tower. We put that railing in up around the top and around the light that's up on that beacon light up there. We worked out there for several months on that. That's the last of the jobs that I worked on the Golden Gate Bridge.

When I was working on the bridge, I used to go to union meetings quite a bit, but I mostly listened. That way, you find out what people are thinking. One time, though, we had a guy come from the Ironworkers International. He was talking about unionism and sticking together. Then the next damn thing he says is, "We got to fight this CIO with all of our might. We got to get 'em beat." And I got up and said, "Well, you just said the opposite a minute ago. I think you're wrong. Labor shouldn't be fighting labor." They asked him a bunch of questions, but he went on the same. I thought that they should of got together like they did later and go that way.[18]

We didn't socialize much, but we did get in the Labor Day parades. We marched up Market Street in San Francisco and acted liked respectable people. We didn't cause any trouble or anything. I did ride in a carpool

with one guy, George Buttner. We called him Chew Tobacco George because he always had a pouch out to here. He was from Texas and he used to be a boxer. I knew his family and his kids and I used to go over to his house. When George got hurt, I helped his wife out. I split wood for her and did different things that she had to have done that George was in the middle of when he got hurt. He was in the hospital for quite a while.[19]

When it came to the paint color for the bridge, most of the guys didn't care. With the Bay Bridge, they had it silvery color. I guess it still is. I didn't pay any attention to it. Is it still the same color?

After my main Golden Gate Bridge work, I went down to the hall and waited for some job to come along. Finally I was sent down to the Federal Building in San Francisco to work as a finisher doing ornamental work. I was there for about six months from the latter part of 1937 on. I liked that type of work, too. They had a federal inspector there. One day he told us, "I want this molding put around these windows." Here I was still an apprentice and we were cutting miters. The federal inspector looked at some of the miters where these moldings fit in there and he says to the ironworkers, "Come here. See how this apprentice cuts 'em and how he fits 'em. That's the way I want 'em done." Well, boy, that was a big feather in my cap. I learned a lot from that federal inspector. I admired the man. He wanted stuff done right and he got it done right before he got through with it.

I put up rolling doors for one company for four years until World War II started. I used to go to Fresno, Bakersfield, Stockton, and Sacramento for them. I went over to the Alameda Air Station, too. Those weren't rolling doors. They had metal roll-up doors at the naval supply base. I was there about six or eight months. During the war I worked in the shipyards as a sheet-metal man doing the shelving on destroyer escorts. I had to join the sheet-metal workers' union then.[20] I kept that card for a long time, but I never did go back to sheet-metal work.

Later there was more money in ironwork, where the wages kept going up. So I went back to that. At the tail end of the war I quit the shipyards and moved up to Redding, California. I did quite a bit of work on ventilation for air-conditioning there. I worked on gas stations and utility buildings. I've also worked on railroad bridges and high-rise buildings and done a lot of rod work, or reinforcing bar work, too, in my time. There is some of 'em stick to one thing. A lot of 'em won't even do any

rod work. But I wasn't afraid of it. Once when I was in San Francisco they were looking for rod men. We were sitting there playing cards. I said, "What's this rod work?" They called it rat trapping. "Oh," they said, "you don't want to do that. Stick to the structural and ornamental work." I says, "I tell you what. You know what I'm going to do? I'm going to try it. It's the same union. You're paying dues anyway. I might as well get some benefit out of it." I went out and run into a man I knew who I'd worked for doing structural. He said, "I'll give you a chance. You can try it for a day or two." I worked for him for six or eight months.

I did rod work for two generators on the Shasta Dam and for the tunnels on a Trinity County job. But after twenty-one years there was no more work in Redding. So I came back to San Francisco to work at Bay Salt. I worked for them my last seven, eight, maybe nine years steady. For forty-two years I kept my dues paid in the ironworkers' union. Since I became a fifty-year member in 1985, I don't have to pay any more dues. I retired in 1977 when I was sixty-seven.

One time when I was working for Bay Salt, this young guy named Bill comes out, whiskers and hair hanging way down to here. His first day he says, "This is my first day as a journeyman." I looked at him and I says, "Well, I'll tell you, Bill, why don't you go home and get a haircut and a shave and look like a journeyman?" Now, I voted Democratic pretty near all the time, but I voted for Hayakawa in 1976. Then he slept in office for six years. He was the first Republican I voted for. I don't know why I voted for him. I just knew of him and what he did and what he stood for, so I voted for him.[21]

In May 1937, when the Golden Gate Bridge opened and they celebrated, I was there. I felt proud that I'd got to work on that bridge. It's beautifully built and beautifully designed. I thought it was an honor to be able to work on something like that.

Fred Brusati

ELECTRICIAN

We called the Coast Guard right away. They came out in a matter of minutes. We could see these men out there trying to stay up in the water. . . . But heck, they had spud wrenches and everything else on 'em. They tried to stay up, but they just couldn't do it.

FRED BRUSATI

Fred Brusati was born in 1911, the son of Italian immigrants who settled north of San Francisco in San Rafael, Marin County. He became an electrician in nearby Kentfield, California, during the early years of the Great Depression. In late 1934 Brusati took a job working at his trade on the Golden Gate Bridge. He served there during the cable spinning process, completed between 1935 and 1936, and remained employed on the bridge into early 1937. Brusati remained a working electrician for many years. I interviewed him in San Rafael on April 28, 1987.

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Angelo Brusati was my father's name. His brother came to Butte, Montana, from Italy and sent money back home so my father could come to America. In 1911 and 1912, my dad worked in the Butte copper mines. They'd be drilling holes and there'd be lots of dust. Half the people he knew back there died from miner's consumption. But my dad's other

brother went to San Rafael in Marin County. He said, "You better come here because Montana's very cold and those copper mines aren't the healthiest place to work."

So my dad came to San Rafael in the beginning of 1912. He had gone back to Italy briefly in 1910; met my mother, Irene; and they'd married and come back to America. She was from Turin. My father was born near Milano. He went into the drayage business in Marin County and stayed until he retired. He had a team of horses and a big wagon. They'd haul stuff like furniture around the town.[1]

I was born in Butte in 1911, but I was raised in the Woodland Avenue part of San Rafael. There were a lot of Italians and they congregated in the same area. They all used to make their own wine in the fall. You'd almost get drunk from the fumes of the fermenting wine just walking through the area.

The roads then were all rock and gravel, and there were big ditches. Sometimes in the evening we would build a bonfire in the ditch and throw some potatoes in there, right in the street. We always spoke Italian at home. When we'd get among our friends, who were the younger people, we'd speak English. We learned it at school.

My mother passed away when I was fifteen and a half. After my sister got married, my father, my brother, and I bached together. By then my father was a cook. He made minestrone soup and cooked tripe and pig's feet. We belonged to Saint Raphael Church uptown. I made my first communion and my confirmation there.

I used to have a paper route where I sold a pictorial review magazine to make some money. And I cut grass for different people. I went to E Street Grammar School up on Fourth Street. In 1927 I came to San Rafael High School. I went a year. It didn't seem like I was learning anything, so I quit.

Then I painted cars for six months. Those were the days that paint and varnish were going out and lacquer was coming in. We used to use flaxseed and lye and put it on the car. Then you'd sandpaper with gasoline all day long to get down almost to bare metal. A lot of cars and trucks came in. We were painting army trucks and we had to use lead oil. We didn't know it at the time, but that's not supposed to be very safe for you. I lost fifteen pounds on that job, I guess just from the hard work.

When I quit there, I asked Gus Hines, an electrical contractor uptown, if he had a job or knew anybody that needed a boy. One day a man called

me up from Tamalpais Electric and says, "Would you like to go to work for me boring holes?" I said, "For how long?" He says, "Two weeks." So I went there and stayed for four years and learned the electrician's trade with 'em. That was in Kentfield in Marin County near San Rafael.

I decided to go to Heald engineering school in San Francisco at night. I didn't have a car, so I would take my bicycle to work and get the twenty-six-minutes-to-six train out of San Rafael to go to Heald's. There used to be a train that would go to Sausalito more or less where Highway 101 is located now. Then I'd take a boat to get to school in San Francisco around seven.

We got out of school about nine o'clock and I'd go like anything to get a streetcar to make the nine-fifteen boat back to Sausalito. I would get home a little after ten o'clock. The next night I would study and the night after that I would go back to school. I done that for two and a half years.

What I took up at Heald's was motor winding and electrical theory, but I found out that winding motors wasn't paying as good as being an inside electrician, so I stayed an inside electrician. I remained with Tamalpais Electric until 1930, when work was really getting scarce because of the Depression. I decided to go contracting. I got a contractor's license and did that for about a year and a half. Then in 1932 Hamilton Air Force Base started up near Novato, which is also in Marin County. I went up there looking for a job because even at contracting it wasn't easy to get any work.

I used to go out to Hamilton every day. I kept pestering the same company there—Ben and Taylor, an electrical contractor from Los Angeles—for a job. One day a guy says, "You know, I'm getting tired of seeing you here. How about coming to work tomorrow?" I says, "Okay." So I went to work at Hamilton. I was there for about a year and a half working on underground distribution, landing lights for airplanes, and the beacon on top of the water tower.

When that job ended it was 1934. I'd heard that they were going to start work on the Golden Gate Bridge. The John A. Roebling's Sons Company was hired to install the bridge's two main cables, which it made out of spun wire. The company was putting up a building at California City a little north of Sausalito. The engineer that was at Hamilton happened also to be the electrical engineer for Roebling. He says, "Yeah, come to work tomorrow."

At the California City plant, we were wiring the building, putting on the motors, and then the lighting on the inside. California City was a twenty-four-hours-a-day operation. They had to work three shifts to keep the wire going for the bridge cable.[2] I was there about three or four weeks and the electrical engineer said, "Would you like to go to work on the bridge?" This was around the end of 1934. I says, "I'll try it. I've never been up 746 feet, but I'll try it anyhow."

My first day I got on the Marin-side tower.[3] I was a little scared because I had never been up there. You had to go up a ladder on the outside. Then you crawled across these I-beams. I figured, "Boy, if anything happens, I'm a goner." But everything was all right. I was a little scared for a couple of weeks there, but then I got used to it. So it never really bothered me after that.

That first day there was myself and maybe three or four other electricians. The boss picked me out. He says, "Take these wires up inside the tower." That was at the Marin tower on the side towards the ocean. So me and a few other electricians scattered all up and down inside the tower with flashlights. We got to the top and there was no way to get out. I relayed the message down to the boss. He says, "Tie 'em off and come on down." It was almost two o'clock in the afternoon by the time I got down.

The boss says, "Tomorrow you and Chapman"—Chapman was my apprentice—"go up on the side towards the bay, get over on the other side, and see if there's any way to get out from the top on the side towards the ocean." The next morning we climbed up inside the tower, got about twenty or thirty feet from the top, stepped across the elevator, and saw a door to get out. So we got out there on a little landing. Then we climbed up on this straight iron ladder with rungs up to the top.

Next Chapman and I crawled across the top of the tower to get over to the side toward the ocean. We looked around and there was no hole to get out. So we crawled all the way back, got all the way back downstairs, and told the boss there was no hole. He says, "Well, tomorrow morning go up, get those wires down on the side towards the ocean, and take 'em over and put 'em on the side towards the bay." It took us three or four days to get those wires up there.

We were putting in the control wires for the Chicago boom up on top. A Chicago boom is like a big whirley boom.[4] There was a hundred-horsepower motor down at the base of the tower. We had to make sure

that there was control wires so this guy running the engine would know what to do. We also put up the wires for the lights for airplanes. These were red lights up on top of the tower.

Later there was eleven or twelve electricians on the Marin side and twelve or thirteen in San Francisco. We put temporary lighting up through the tower to light the way so you could climb up and down. Then they decided to put up an outside elevator. We had to wire the motor for that and for all the signals up and down on the outside.

Another job that I done there once was on this five hundred pounds of circular mill wire that went from the bottom of the tower up to the top to run equipment. San Francisco had pulled some of the wires up. Whoever made the splices didn't make them good. All the cables fell down inside the tower. So Charlie Hackenberg, our foreman, says, "Fred, make the splices on these wires." It bothered me because I knew they had dropped 'em in San Francisco and if I made a bum splice, then I might get my walking papers.

The day in August 1935 when they laid the first wire across the Gate to make the bridge's cables I was watching 'em. They put this great big reel of wire on a barge and towed it across to the San Francisco side. They had shortwave radio and flags to signal with in case anything was happening. They pulled the wire up and anchored it off the top of the towers. When they were doing that, they had to stop all the ships. Nobody could cross there, see.[5]

After that was when they started to build a catwalk up on top of the Marin and the San Francisco towers because there was no other way to get out to the middle.[6] Of course, there was no handrails or nothing else to protect you.

For the spinning of the cable, Roebling started with just one spinning wheel on each side of the bridge. In other words, each catwalk had one wheel and, of course, the Marin wire was anchored at the Marin anchor block.[7] From there it would go to midspan. At midspan, they took the wire that came from San Francisco. Marin would take the San Francisco wire back to Marin. And San Francisco would take the Marin wire and go back to the San Francisco block. The wire was just going back and forth all the time until the cables got made.

I was an electrician when they were spinning the cable. The spinning was controlled by one man at midspan. There was a little shack there at

midspan where the control room was. After the catwalk got built, we had to run control wires. We had 440-volt power wires on one side of each catwalk. Then as the spinning wheel was coming and you saw that something was going to happen that would cause injury or breakdown, you'd just push a button and stop all the operation of the spinning.

We had telephones all along the catwalks. You'd call up to midspan and tell 'em what was the matter. When it got repaired, you'd call 'em back and the guy there would start the operation. Nowadays [1987] they have a lot of different controls to tell where the spinning wheel is. But not in those days.

One day after they got the catwalk built on the backspan, the boss says come on down and see if you can get some temporary wires down there.[8] The catwalk wasn't latched down or anything. The wind came up and started to bounce the catwalk all over. I had a safety belt on and I just tied it on to the steel cables that were coming down to hold the catwalk. I said, "Well, if the thing flips over, I might be hanging up there, but I'll still be there." Nothing happened, so I was glad.[9]

But the day in February 1937 that the safety net broke, the scaffold went down, and ten men died, I was working on the catwalk right there about midspan. This was near where the net broke. Somebody said, "The catwalk is falling." So I jumped up on the big cable. The cable is down real low there. Then somebody says, "No, the net broke." So I jumped back down on the catwalk, walked out on the road, and looked down. You could see the net down below you. It was gone all right.

We called the Coast Guard right away. They came out in a matter of minutes. We could see these men out there trying to stay up in the water. The reason they didn't get crushed falling is that the net coming down broke the water. If they just jumped down, the water would be hard, but when something else was ahead of 'em and broke the water, it saved 'em. But heck, they had spud wrenches and everything else on 'em. They tried to stay up, but they just couldn't do it.

In a matter of minutes, too, some men were way out by the lighthouse that's out there in the ocean on the San Francisco side. The Coast Guard, though, did come out in nothing flat. I think they saved two men.[10]

There was a space on the bridge where the road hadn't been poured yet with concrete. There was some man hanging on to the steel. Me and three or four other men lowered a rope down and pulled him up. The

Catwalks under construction, 1935. One windy day Fred Brusati feared that the catwalk he was on might flip over, but he was wearing a safety belt and thought he would survive. Photo by Ted Huggins. Courtesy of California Historical Society, Huggins Collection, CHS.Huggins.033.

man had a pipe in his mouth! He didn't drop the pipe or nothing. He just started walking towards San Francisco. I never did see him back there again. His name was Tom Casey. I guess I would have done the same thing if I were that close to getting killed.[11]

The next day they came out there with a big floating crane and pulled up the net. A lot of men who died had been caught in it.

A different morning when we came to work we were up on top of the Marin tower and we could see an ambulance. We'd seen 'em throw a white sheet over something. There was a man that went there after hours to grease his bulldozer. It was his own rig. A blade had come down and killed him. But they didn't consider that as an accident on the bridge because this incident occurred at night and off of the bridge. But we knew that it happened.

Another day I was working on the Marin backspan. There was an engine with five or six gondola cars loaded with concrete. They was coming down to pour the bridge roadway.[12] Pretty soon I seen the engineer

jump out. The engine and the gondolas landed into the anchor block [the concrete block into which the cable eyebars are embedded]. All the gondolas got smashed. The day before there was fifteen or twenty carpenters working near there. That day, though, there was nobody working, so nobody got hurt. All that went down was the engine and the gondolas.

See, there's quite an incline there. You can't tell it when you're driving on it, but from midspan to Marin it's a little hill-like. It was really foggy and wet that morning and the cars were all loaded with cement. There was a lot of weight and the engineer couldn't hold it with the brakes. They were pouring sand on the rails, but the wheels just slipped and wouldn't stop. So the engineer saved himself by jumping out.[13]

When I was working on the bridge, we worked five days a week for eight hours a day. There were no work breaks. You went to work at eight o'clock and you'd work until twelve and stop a half hour for lunch. When I first started there, I used to take five lunch sandwiches. It got so I couldn't eat 'em in a half hour, so I had to cut down to eating three.

Sometimes at lunchtime we would get a thousand-watt lamp and bring a little wire out there. A switch could go on and then we'd cook hot dogs. You put the wires in each end. I think the electricians figured that out on the bridge.

About four-fifteen in the afternoon everybody would start coming down. It would take better than a half-hour to climb up in the morning, but climbing down you could do in fifteen minutes.

We got nine dollars a day. At least that's what the electricians got. They tell me the steelworkers got around eleven dollars a day. At nine dollars a day you got along all right.

I used to get up around six or six-fifteen in the morning, have breakfast, and then walk uptown around where Lincoln Avenue in San Rafael is now. A carpenter named George Solovini used to pick me up there and we'd ride down toward the bridge in a little Model A Ford. We'd check in with the timekeeper, get on the bridge, and go to work.

One thing that Roebling was very strict on was if you were caught on the catwalks without a hard hat on or without your safety belt on, they'd fire you. And if they caught you smoking on the catwalk, they'd fire you. They tell me this was because one time they had a fire on one of these catwalks back in New York someplace and they had to take some of the cable down that they had formed. The heat had knocked the temper off the steel.

The partially completed Golden Gate Bridge in the fog, October 10, 1936. Brusati described working in cold, foggy conditions on the bridge. Photo by Clyde Sunderland. Courtesy of Labor Archives and Research Center, San Francisco State University. Copyright Quantum Spatial, Inc., KY.

What bothered me the most about the job was that in San Rafael it would be seventy or eighty degrees and sometimes on the bridge it was real cold. What I used to wear on the bridge was 76 percent woolen underwear. I couldn't come home and change for fear that I would catch a cold. So I used to have to wear the woolen underwear in summer around San Rafael because some of the coldest weather on the bridge is in June, July, and August when the fog is there.

Some days when you were working up on top you were above the fog. You could see all over and it looked real pretty like there was a blanket of snow up there. Of course, some days it wasn't pretty. Then sometimes

when it was clear it was hotter than blazes up on top. You'd get down to the bottom and you'd be almost freezing.

One day a friend who worked with me had a box camera. His name was Leonard Muller. He brought the camera up and took a picture of me on the cable. We also took pictures of the surrounding area. Of course, they were all black and white.[14] I don't think they had any rules about cameras, but you couldn't have a camera and flip pictures all day long, either, because you had a job to do.

On a real windy day you could put a few pieces of newspaper under your coat and on your chest so you wouldn't catch a cold. I done that a couple of times.

A few times when it was really windy you could feel the motion of the bridge swaying. I'd get home and I felt like I had been on a boat all day. Even the catwalks swayed. Another thing that you used to see was the expansion and contraction of the bridge. In the morning after part of the groups of cable were built, the ones towards the bay were low down. In the afternoon, the ones towards the ocean were low down and the ones towards the bay would be higher up.

One extra-cold morning we went to work and heck, all the water lines were frozen. They sent everybody home but the electricians because we were more or less the firemen on the bridge in case of a fire. So we stayed all day, but we didn't actually do any work since there was icicles that were dropping that were up to four or five feet.

Roebling issued us rubber raincoat, pants, jackets, and hard hats. We used to tie a string around our arms and on the bottoms of our legs, whether it was raining or not. If it was real cold, that was one way to keep warm. I used to wear tan pants and tan shirts. I'd wear a jacket that was like a windbreaker of some kind. I also wore heavy dark brown overalls. They called 'em iron pants. The steelworkers all wore 'em. The rain gear would be on top of all that. On warm days you'd take stuff off, but I always wore overalls to store my tools because if you dropped 'em, it's good-bye.

I had ordinary seven-inch work shoes. I guess they would be considered like a short boot. They had composition rubber

Brusati sitting on one of the bridge's main cables, Marin County to the north behind him, circa 1936. Brusati's friend and coworker Leonard Muller took this photo with a box camera. Courtesy of Labor Archives and Research Center, San Francisco State University.

Workers examining ice on the bridge. Brusati remembered icicles four to five feet long. Courtesy of San Francisco History Center, San Francisco Public Library.

and cord soles almost like a tire cord. That way you didn't slip as easy as with other kinds of soles.

Our hard hats were black. Bullard Company from Sausalito was the original one that made those hard hats. I still have mine from the bridge down in the basement. It has Bullard's name in it. Bullard still makes a lot of safety equipment.[15]

Around the same time I went to work on the bridge I joined Local 614 of the International Brotherhood of Electrical Workers [IBEW] in Marin County. Local 614 wanted to get four or five men onto the bridge project because we were out of work over in Marin County, where it was just as bad as in San Francisco.

Of course, once we got on the bridge, we would sometimes go over and help the San Francisco people. If Marin County needed extra help,

they'd come over and help us. In other words, we all got along, but still the union locals had to try to get as many men on the bridge as possible or the business agent would hear about it.

When I joined Local 614 up in San Rafael at the end of 1934, there was only about seven or eight members. They had a drive to get more members in, so they lowered the initiation fee from fifty dollars down to twenty-five. In those days fifty dollars was a lot of money. When they dropped it down to twenty-five, seven or eight of us electricians went in at the same time. Sometimes at meetings if we wouldn't have enough men for a quorum, we couldn't hold meetings. This was because there was a lot of unemployment and there wasn't that many members.

One time IBEW Local 302 from Contra Costa County wanted us to go in with them. They wanted to get more members over in their local. We discussed it and voted for merging. Then we looked at our watches. It was after eleven o'clock at night and in the electricians' union anything that took place after eleven o'clock was illegal. So we didn't go over to Local 302.

During World War II, our local was at Marinship in Sausalito.[16] IBEW Local 6 of San Francisco wanted us to go with them then. That way, you'd have more power in negotiations. If you're just a small local, it isn't easy. So we went to Local 6 for a couple of years. After the war, IBEW Local 551 up in Santa Rosa wanted us to join with them. They were bigger than us. So we transferred from Local 6 to Local 551. I'm still a member of that local.[17]

In late 1934, though, I was happy to get into Local 614. When I was at Hamilton Air Force Base around 1932, '33, the unions weren't very strong. Work was very scarce then, too. But when we got on the bridge, you'd almost have to belong. You heard through the grapevine that a project like that was bound to be union. That's when I decided, *Well, I better join.*[18]

In those days, you were allowed to go out and look for your job. Where you'd see a job, you'd go in and ask if they needed anybody. Now it's different. Today [1987] in our union, IBEW Local 551, you have to go on the book, and whenever your turn comes up, they hire you. That was done so older members would get a chance to go to work. Otherwise the contractors would always want younger men. Being on the book gives everybody a chance.

In the 1930s, I went to union meetings, but I was not active in politics. I used to vote all the time, though. I always voted for Franklin Roosevelt, who I think was one of the best presidents we've ever had. Anytime he spoke, I would listen. It was just radio in those days. I don't think we even had television in '35.[19] Roosevelt done a lot for the workers. When Social Security came in as part of his New Deal in 1935, I was working on the bridge. I remember we had to sign papers that was supposed to help us when we got older.

I got married to my wife, Elvira, in 1935. We rented a little duplex. We tried to haggle the owner down to twenty dollars a month. He said, "Nothing doing." It was twenty-five dollars and we had to take it. We rented for two years. Then we bought the lot in San Rafael where we're still at and had a house built. I think I paid a thousand dollars for the lot.

When we got finished with the bridge, I went back over to California City. We overhauled all the electrical equipment there for John A. Roebling's Sons because the company was going up to Washington to build the Tacoma Narrows Bridge that later went down.[20] From there I went to work for Tamalpais Electric again doing residential or commercial buildings. I was working one time in 1937 and was up about seventeen feet when I got a shock. I fell and broke a heel. So I was laid up and couldn't get on the Golden Gate Bridge when they opened it that May.

When the war came along, there wasn't too much residential building going on. So when Marinship opened up in 1942 and started to build ships, the boss asked me if I would like to go there as general foreman of the electrical maintenance crew. I said yes. First Marinship built Liberty ships to carry cargo. From there they built tankers. We put up the power and the lighting for the welders and kept the gantry cranes going. As foreman I walked from ship to ship and paid 'em all a visit.

There was quite a few colored people at Marinship. One Chinese man and a couple of colored people worked for us in the electrical gang.[21] I don't remember seeing any minority members on the Golden Gate Bridge job, though. At Marinship we only hired one woman electrician in maintenance. Now, for wiring the ships they had quite a few women, but we only had the one. She was young and they said the only reason they had her there was to charge up the men.[22]

After the war ended they dismantled Marinship. Then I went to work for Cimino Electric Company in San Rafael and stayed with them for

thirty-three years. We wired the library building at the San Francisco Theological Seminary, put in automatic switching for these radar balloons on Mount Tamalpais, and wired the library at the Dominican Convent in San Rafael. My last job before I retired at sixty-five was running the wiring for Radio Corporation of America up at Point Reyes for the big dishes where they get the stuff off of satellites. That was an interesting job because it was different.

But back in 1937, to me the Golden Gate Bridge was just another job. I didn't think of people ever having a celebration like they're having this year [1987]. When the Golden Gate Bridge District had some other celebrations, like for the starting and a few other times, I've always went there. But in the 1930s I didn't realize that there'd be so much going on over the bridge.

Today whenever I drive across the bridge I'm sure happy to have been one of the workers on it. I'm also happy that I had a job at that time because a lot of men weren't working. Younger people nowadays can't realize what a real depression is like. You didn't have welfare or anything. It was really tough.

One thing I'll say is that the bridge was special because earlier nearly everybody said that it couldn't be built. So after it got all built I said, "I guess everybody who figured this couldn't be built must have been wrong. It's all finished now and it's going to stay up." And it's been up there a couple of years now, you know!

6

Martin Adams

LABORER

I didn't learn how to do this; I just experienced it. **MARTIN ADAMS**

Born in rural Arkansas in 1912 and raised in Ozark Mountains farm country, Martin Adams came to the Bay Area of Northern California in November 1934. He went to work on the San Francisco–Oakland Bay Bridge in 1935, where he was a laborer and a deep-sea diver's tender. Adams found employment on the Golden Gate Bridge in fall 1936. He stayed on the job there through the bridge's opening the following spring. Shortly after that, he became a pile driver, a trade he plied until his retirement. I interviewed Adams in Oakland on May 21, 1987.

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Our family lived out in the country, right in the heart of the Ozarks. This was twenty miles north of Fayetteville, Arkansas. It was beautiful country, mostly all hardwood timber. We had different kinds of oaks, dogwood, and redbud. The spring of the year it was beautiful with all kinds of wild berries. I don't know where they have any better fruit for taste.

I was born on October 12, 1912, at Pea Ridge, Arkansas. That's where I went to high school and lived until I was around twenty-one or twenty-two years old. My parents were pretty much all American. My mother's

name was Lee, my father's Adams. There's some English and German in there. About Adams I know they were in the starting of Indiana when that was settled. So they've been in this country for a long time. One of my great-grandfathers was an Irishman. That's about as far back as I know.

My dad was a farmer. We raised hogs, corn, wheat, oats, berries, and apples. I had four brothers and four sisters. With that big family, we had to cover about everything that come along. We didn't have anything extra. We grew our own vegetables, had our own cattle and chickens, and canned our own fruit. There was very little that we bought, just salt and sugar. Overalls we bought, but mother and the girls all sewed their cotton dresses.

Dried apples was one of the big crops. We had a commercial apple dryer. Every year in season we put a lot of time into it. I grew up with that. I run automatic peelers when I had to stand on a box to reach 'em, I was that small. We had two power peelers. You could put fifty bushels of apples through a peeler and it would peel and core 'em. We had an automatic slicer that sliced 'em into rings. From there they were bleached with sodium. Then they went onto the floor of the dryer where we had wood furnaces. It would take twenty-four hours to dry them. We'd put 'em in burlap bags anywhere from fifty to a hundred pounds and sell 'em for shipment east. Usually we worked six days a week. We didn't peel on Sunday. The other six days we put in long shifts of ten or twelve hours. But this didn't last but a couple of months.

Our house set up on kind of a knoll. There was two streams run through the farm, so we had plenty of water. We was raised on water, swimming, fishing, and trapping. We would catch bass, suckers, and sun perch. I've done a lot of fur trapping. That's the way we made our pin money. I trapped skunks, opossums, muskrats, and raccoons. They was quite a few fox around, too. But deer had been killed out before that. We'd run our trap lines in the morning before school. Whenever we set traps, we tended them all the time. We didn't leave animals in 'em because that's the hard way [for animals to die].

The first school I went to was in a little country schoolhouse. You had the first eight grades there. I went to that for two and a half, maybe three years and found out we was going into the wrong school district. We had to go to a larger school, which was the high school in Pea Ridge. They had all twelve grades there and probably 100 to 150 students. That's

where I finished high school. Up until the last two or three years we always walked to school. Then they started buses and we got to ride. Oh, we was doing good then.

When the Depression came in 1929 it did affect us quite a bit. There was just no money. It was really tough. But we done all of our work with mules and horses and we made 'most everything we had. We managed to live. We didn't have money to go anywhere else, but we got a high school education.

I got very little work off the farm except in apple harvest time. If I didn't work on the dryer at home I worked hauling apples. Just before I came out to California in November 1934 and got a chance to go to work on the Bay Bridge, I was hauling apples for a big orchard. I had a pair of mules and a flatbed wagon. I'd haul sixty-five bushels per load and I was taking around eleven loads in ten hours. That was for a dollar a day, ten cents an hour. And there was a lot of people who wanted your job. If you didn't make it, why, they were there to do it. That's a dollar a day, six dollars a week, for sixty hours of work.[1]

About this time a young fellow who married my oldest sister got a job working for Bates & Rogers, a construction company out of Chicago. They traveled through the country on different jobs—bridges, tunnels, railroad work. That company got the contract for the deck job on the Bay Bridge. He and my sister were coming out to California and they asked me if I wanted to come. Well, I was twenty-two years old. I was adventurous. I'd get a chance to work on the bridge with better money. Sure I wanted to come! They started at 68¾ cents an hour. That was the cheapest wage the state would let 'em pay, and I was pretty well assured of a job if I could hold out long enough for my brother-in-law to get me hired.

I was out in the Bay Area three or four months before a job opened. Before that happened I worked a few days here and there unloading coal in the West Oakland yards or anything I could do. It didn't amount to much. My brother-in-law and my sister had to pretty well finance me until I went to work on the bridge. I put in applications over at American Can, Judson Steel, and all those places. But the bridge job opened up before I got a call on any of the others. This was a good working climate, too. When the company left, I stayed right here.

My first day on the Bay Bridge we got in some carloads of lumber. I'd say it was February or March in '35. They were getting ready for concrete

form work. I did just labor work, unloading lumber and cleaning out cars. Then we got cement for the bridge. I got the job of unloading cement. A whole boxcar would be loaded with about six hundred barrels of it. I got to where I could unload a car in half a day.

A little later the engineer that was operating the batching plant moved up into the office.[2] I moved into his job. There I had a good job that was all push-button. It was all automatic—the conveyor belt, setting the scales, the whole works. You opened these hoppers and added so much dry cement, fine sand, rough sand, and small gravel. It all went in by weight. My brother-in-law showed me how to operate the system. Operating that batching plant for the deck on the Bay Bridge was one of the main jobs I done. I did that just about to the finish of the bridge.[3]

There were times, two or three months at a stretch, when we would get caught up [i.e., the decking crew would catch up with other operations and have to stop work]. Then we'd slip over and go to work for American Bridge Company. Those times I worked out in Alameda loading the steel for the Bay Bridge. The steel was shipped to Alameda and stored. We had to take it out and load it on flatcars. Then we'd wheel the cars onto barges using a steam locomotive. They'd send the steel to the bridge, where cranes picked it off. Each piece as needed was right there in place. We set it out that way.

We loaded the steel with cables and a crane. You put two slings around each end of the steel. We loaded the big hydraulic jacks used on the cantilever span of the Bay Bridge when that was put together. I didn't learn how to do this; I just experienced it. You done about everything on the farm, and I was mechanical.

Actually, I was working as an ironworker in Alameda when we were loading this steel, going out in the yard and finding the right piece. When you had a bargeload you knew exactly how many pieces were going to go. The last piece they wanted you put in first on the barge.

I also went to work under the cantilever span of the Bay Bridge. We drove pilings in the water and capped those pilings off. We had to put falsework in there and build it up so they could erect the bridge on it.[4] When they got it all built we had to go back in there and tear all that falsework out. We pulled all those pilings out of the water, too. I loved that work. Since I'd been raised around water, I liked working near it.

They used a derrick barge in pulling the piles out.[5] Then we had to raft the piles in to shore because we couldn't let 'em get out in the ship

lanes. They were sixty to eighty feet long. You'd throw a cable across each one and you'd pull 'em together and staple 'em. But you had to stay on those wet, slick pilings because if you went down between 'em and they come together, they'd crush your foot off. You only made two or three slips and they'd fire you. They made you safe. We had a general foreman they called the Mad Bull. He was usually up on the bridge. But if you made a slip, someway or another he always saw it. I slipped through once and he hollered, "Get that damn foot out of there." You could hear him holler from here to the bridge. He wanted the work kept going because an injury would hold the job up. But he was a pretty nice guy at that.

Another thing I liked around water was to work tending divers. I wanted to go down as a diver, but our job wasn't quite long enough or I'd have had it made. You could make five dollars an hour as a diver, but you'd only work a couple or three hours a day. You couldn't stay down too long.[6] In tending you had ropes and you sent down anything the diver needed, like these wrenches, those bolts, or this drill. You was hooked up to him with a telephone and he'd tell you what he wanted.

For the first little while on the Bay Bridge our day was six hours because they was putting as many men as they could to work. Then we went to the eight-hour day, which was from eight to four-thirty. You had thirty minutes for lunch. Sometimes they double-shifted if they needed work to get done faster. When we were working out on that pile work, we were double-shifting. We'd go to work at six in the morning and work until twelve. Another crew would come on and work from twelve until six. Then that same crew would come back the next morning at six and work until twelve. They'd work two shifts together that way. When we came on at twelve and worked until six, we'd come right back the next morning, doing the same thing. We worked the six hours and that was it. There was no lunch break then, no coffee breaks, nothing like that. We'd work right straight through.

When I started out I wasn't in any union. They organized one in 1936 while I was on the Bay Bridge. This was the Laborers in San Francisco, Local 261.[7] Bates & Rogers was an organized company back in Chicago. When the union come after 'em out here, San Francisco was going union pretty strong. The longshoremen on all the docks were well organized. That's when they were spreading unionization in all the construction industry and everything like that. Actually, they organized more through

the company than they did with the workers because the firm was already a union company. They blanketed us all into the union. We just went down and paid ten dollars and we were in the union.[8]

Getting a union was good because a lot of the time we'd go out to work at eight and work for an hour and they'd say, "We don't have a thing to do. Go." With the union they had to pay you for at least two hours if they sent you home. And they couldn't work you and then leave you stopped and then go back to work again. Either you got a half day's or a day's pay that way.

When the union first came in, our wages didn't change. General labor was seventy-five cents an hour. But the union also seen that you got the amount of pay and the hours that were right and you weren't abused. You got an honest day's pay for an honest day's work. And if personalities got into things and they fired a man without cause, the union would stand up to that, which was very good.

Before I went into the union, I worked all these different jobs. You could work at any of 'em. The union was not strong at that time. Then when we went into the union you stayed within your jurisdiction. I took that because I could make more money than I could at the other jobs. Like with the ironworkers, you'd work for a while and your job finished. It could take you a long time to get another job. It was the same under the pile drivers and the carpenters. And it was awfully hard to get those jobs. With the Laborers' union, you could get them very easy. We'd work steady. After a year or two, I went on to labor foreman and then I could follow from job to job. That way I never had any problems getting work.

With the construction companies going union, they got something, too. They could call the union for men 'cause the unions always had a good apprentice program. They'd get qualified workers that way. Before a fellow would come out and say, "I'm a carpenter," but I seen 'em come out and they couldn't even drive a nail. But this way, if a worker wasn't knowing enough, the union put him through the apprentice program and trained him. The companies liked that because they was getting qualified workers. They could get the job done right and, that way, for a cheaper price.

When we finished the Bay Bridge job, and I was right down to the very last, I done night-watching on the San Francisco waterfront. That's when they had that waterfront strike in '36. This was just as the bridge

was finished.[9] The company had its plant and lumber yard set up on Beale Street near the piers. The longshoremen was coming around there and I never saw a bunch of nicer fellows. They wanted this lumber. Everything we had that we wanted to get rid of they'd take. They figured they was going to be tied up for the winter and they wanted firewood. They had barrels they'd build a fire in to keep warm at night because they picketed round the clock. But I had no trouble with 'em.

Sometimes it'd raise your hair. You would go into those shacks and you'd hear somebody come in on you in the night. All you had was a flashlight. It would make you wonder because they would be kind of in a gang and you was by yourself. One time I heard a noise at the other end of the yard. I looked to see what it was and it was about ten of 'em. They had a whole big roof section off of one of the houses and they were carrying it off. I got up my nerve and says, "Fellows, I can't let you do that." They said, "We thought maybe you was going to throw it away," and they carried it right back and put it where it was. They were nice and we sat and talked. They were just a bunch of working people going for a little more when the company's taken advantage of them. I told 'em, "Anything I can get for you, I'll get."

In November the bridge opened and we was gone. The company sold the finishing machines we used to finish the deck on the Bay Bridge to Pacific Bridge Company on the Gate.[10] A bunch of us guys moved right over with the machines. Pacific Bridge gave us a job. We'd been on this bridge, why not on that one? So we went right over there, signed up, and went back to work doing the same things.

There was seven or eight of us that went over there. I knew the two finishing-machine operators. The whole crew of us helped them tear the machines down and put 'em together again on the Gate Bridge. We had small-gauge railroads on the bridge and we'd haul out the parts and then put everything together. The machines vibrated and leveled the deck. A machine covered two lanes of traffic. They were quite an intricate deal and they were heavy. I had a thumb split wide open by one. We was changing something around one time, and it was more weight than I could handle. It took my hand down in with it 'cause I wasn't going to drop it. We bound my thumb up and I went right on back to work. It was just part of the job.

I got a lot of different experience with the finishing-machine crew.

I was still a laborer, but I could do any of that work. And then we done about everything on the Gate Bridge, from moving lumber to moving track to the stripping of forms. When they were putting forms in, we'd get 'em all ready and lay 'em out. We done all of that. That was labor to keep the construction crews going.

I was working with the ironworkers moving these hanging scaffolds used for stripping forms when the February 1937 accident occurred and ten people were killed. They designed these big scissors hooks to hold the movable scaffolds. The hooks were hung to the bottom flange of the bridge's beams. They had wheels on the bottom of these big hooks and they just rolled the scaffolds right through them.[11] To put weight in there, you'd draw the hooks tight and bolt 'em up. That was one of the main causes of accidents. We didn't have enough bolts for all of the hooks. When that scaffold fell, the hooks had opened up. There was nothing to hold the scaffold.[12]

We'd worked there for two days, starting on Monday morning. Our crew would move one scaffold while the stripping crew would use another scaffold to strip and get the lumber out. Any extra time we had, we helped strip. But they wanted to really get going. So Wednesday, the day of the accident, they sent a second crew out to move scaffolds. That crew was brand new.

At nine o'clock my crew was working on our scaffold. I crawled a beam over to the new crew and talked to those guys for a few minutes. We were all friends. I was over talking to all of 'em for three, four, or five minutes. Slim Lambert had worked for a long time before in our crew. We were buddies. He'd been made their foreman. I'd left my coat hanging on their scaffold. We'd worked that one from six until about eight, just before they came, and then moved. I got my coat and crawled back across the beam and went onto our scaffold. Ten minutes later it happened. The new crew started to move their scaffold. That's when it went down. It was nine-twenty in the morning.

I was on the back corner of our scaffold. There was so much noise you couldn't tell what was going on. I looked down over the edge of our scaffold. Their scaffold was going down to the water. The safety net was coming down on up the line. The net was good and solid. I know because I went down in there. You'd walk around in it and it was safe. But the scaffold tore it loose at the center.

I raised my head and looked around. There was two fellows hanging there by their fingers on the flange of the beams underneath the bridge. One of 'em hollered, "For God's sake, get a rope!" Our foreman, T-Bone, and I hit for this ladder right quick where you could go up onto the deck. I don't know what the foreman's name was, but we called him T-Bone. I got there a little before he did. I went up the ladder, he followed, and then here come the whole crew up.

There was some other fellows on the deck, too. I heard one of the electricians talking about how they grabbed an electrical cord in order to slip down and put it around the guys' legs. But there was a big rope, oh, about inch and a half rope, laying there. We grabbed that and everybody pulled it. We put enough slack in it that it made a loop. We run it down between the guys' legs and pulled 'em right up. We got both of 'em within just about a minute or so.

We could hear the fellows in the water hollering. They picked two of them alive out of the water. One was Lambert. The other one that came out was a carpenter. I don't know what his name was. He was badly broken up. He had a broken pelvis and several things. He never did come back, I don't think. But Lambert was right back out there in a few days.[13]

Afterwards I crawled back down and took a look at what remained. There was one of those big hooks that had bolts in it, and it was sheared off right straight. Another one that was hanging had no bolts in it. The other four hooks of the original six were gone. There was only the two hooks that were left. We never went back on those hooks anymore. They brought in different ones with a lot more rollers. They had no more problems after that.[14]

When that scaffold went, if we'd been close enough to the water, half of our crew would have jumped in. There was a lot of 'em hurt by falling lumber and we could have got to 'em. But there was no chance of going down from there [where we were].[15] We headed back to the office and everybody went home. It was on the radio that they'd had an accident and several men were killed. So we headed for home quick because we didn't have a telephone. It was get home and let our folks know that we were safe. But the next morning at eight o'clock we were back out there again, right back to work. We knew that this wouldn't stop the job. It was an accident and it happened and there's nothing we could do about it.

I talked to Lambert later. He said that when it all started there was a

Fred Dummatzen (*left*) and coworkers banding cable strands on the bridge, 1936. Martin Adams sadly recalled the terrible accident on February 17, 1937, that killed Dummatzen and nine other men. Photo by Charles Hiller. Courtesy of Labor Archives and Research Center, San Francisco State University. Copyright Golden Gate Bridge, Highway, and Transportation District.

lot of lumber on the scaffold. The carpenter foreman and a carpenter had just come down there to fix some railing on it. So they were on it, too. Lambert said that when it started to go, he run and jumped. He got clear of the scaffold itself. That way he wasn't falling in the lumber. He was in the net. Maybe this saved his life because the net going down would be a little slower. That might have cushioned his fall a bit when he went in. He said he was in the net to his knees and he come back out of it and got his feet under him so he could go into the water feetfirst.

The state held hearings on all of this and what was the cause. My testimony's in there with all of the ones who worked and knew the scaf-

folds. The union backed us all the way. They weren't as strong at that time in their safety efforts, but they were driving for it. The state had a safety deal, too. They had a law.[16] The president of Pacific Bridge said that he designed those scaffolds himself. It was kind of bad structure, but I think it would have held but for the bolts. We didn't have enough, and somebody didn't think.

Earlier, we'd worked with Lambert when we were pouring. We were up on the deck of the bridge pouring for a while before it come to the stripping. We was putting the concrete in. Lambert was the dump man on these narrow-gauge railroads. Charlie Spoon, one of my friends, drove the dinkey. It had a heavy railway wheel box and everything. So Spoon was hauling concrete one morning with Lambert as the dump man. We were pouring down close to the Marin tower. It was raining.

They loaded these cars on the flat on the San Francisco side, but the bridge had quite a good arch in it. Spoon had six yards of concrete behind him and these two extra cars they put in. He only had a six-ton dinkey and they had nine tons of concrete behind him, plus the cars. He had to give it everything he had to get that thing really rolling or he couldn't get it up over the slope. Well, he made it over the slope. He was really laying into it.

Spoon came over the slope probably about ten miles an hour. He started down the other way and he reached over and set his brakes. The track was wet and he went faster. That dinkey was sliding and it had no brakes on the cars. It went right on by us, clear over to the Marin side past the Marin tower, came to the end of the track, and dumped the whole thing—the six yards of concrete, the dinkey, and the cars. The engine went over first. But before it went off, Charlie Spoon and Lambert jumped out on the deck. Spoon slipped down and I never saw a guy limp as bad in my life. He wasn't hurt, but he was scared to death.

We were all a little scared, but it was just one of those things. Nobody got hurt, although the day before there'd been a crew of about fifteen carpenters working on falsework in there where everything crashed.[17] The load went down through a bunch of falsework and right into the ground. It stripped everything out of its way, but there wasn't a soul working in there. They put Spoon on the finishing machine the next day. He didn't get fired because he was doing his job. He just didn't have enough power to stop the dinkey with the track wet.

A lot of days it would be rainy and windy like that on the bridge. You couldn't pour concrete in heavy rain, but after it got where we could work underneath, why, we didn't hardly stop. We could tell what the weather was going to be by the crab boats. They'd come right along the shore. You'd think they were going to hit the rocks because the water was so rough and the wind was blowing so hard. They'd work right around the coast and stay out there until nine, ten o'clock. If the weather stayed that way, they'd work their way back in and we knew we had a bad day because the wind was hitting you, too. I also found out that you didn't take a leak on the ocean side of the bridge. The first time I tried, about when it got running good, the wind hit. I got a shower right in the face. I never went back to that, 'cause on the bay side the wind blew it away from you.

And cold! The Gate was the coldest place I've ever worked. You put all the clothes you could get on and worked hard or you'd freeze. They didn't have to push you to get you to work. You worked to keep warm. I'd been used to snow and ice. This wasn't snow and ice, but it was just about as cold. There was a little bit of ice a few times. It was a cold, rainy winter and you were just careful.

I wore a sweatshirt underneath a shirt. I seldom ever wore long johns, but then I had a pair of overalls on and a coat. You'd put all them on and button 'em up. Then you had the steel man's six-inch high-top shoes with fiber cord soles so you had as good a footing as you could get. Those shoes were a must. All the steel workers wore 'em. You couldn't wear leather soles out there. That just wouldn't work when you get that steel and it's wet and cold.

Usually I wore cotton socks, and maybe two pair at times when it was real cold. But I never noticed that my feet were cold 'cause we were moving all the time and that kept us warm. We'd wear gloves to protect ourselves against the concrete. They had a calf leather basing and canvas. The ironworkers used an all-leather glove for riveting because of the hot sparks. But we didn't get into that too much, so we wore just enough to protect our hands.

I've got the hard hat I wore on both bridges setting down in the basement now. It's kind of a brown fiber with a flat rim all the way around it. The ironworkers, most of 'em, was the ones that wore those other smaller black ones on the Golden Gate. They didn't have much rim on their hats, which were like a miner's hat. The brown fiber one had enough rim on it

so if anything hit you, it'd only knock you back. It made a good rain hat, too. I split the front rim of mine. It's got a nice split in it where a cable hit it. But it saved my face. The cable come right across and it would have mashed my nose. It knocked my head back, but I didn't get hurt.

You always had to wear a safety belt, too. It was a two-inch leather belt around the center with a rope on one side so you could tie it off. I never did like that very well. We had to move too much. If you were working in one place, you could tie off close. But if you had a twenty-foot rope and you tied that off and you fell twenty feet, that'd catch you around the middle. I'd rather fall all the way than have that catch you and break you in two! This was an ironworker's belt. I still have mine. It's pretty old now.

I lived on Post Street in San Francisco when I was working on the Gate Bridge. I didn't have a car. I'd ride the streetcar down to the guardhouse in the San Francisco Presidio. Then you'd walk on up to the bridge and walk across it. This was after they got the cables up and the bridge up itself. That stopped any boats [for transporting workers] right quick. I never took a boat. You just walked. A lot of times we were working on the Marin side. You still wanted to be out on your work spot at eight o'clock.[18]

There was one more incident that scared the life out of me. We were back over Fort Point near San Francisco working around the walkways. We were working on some two-by-fours that were five feet long. I'd get down there and was holding 'em. This other fellow was hitting 'em with a sledgehammer. He reared back and hit one hard. I couldn't hold it. There was a crew down under on Fort Point, 100 to 150 feet below. We started hollering and they moved out of the way, but that thing hit on end and splintered into half a dozen pieces. If it had hit somebody, it would have killed 'em for sure.

Those guys talked back to us, and they didn't talk back real easy. When you drop something on somebody down below, why, he's been depending on you to take care of him and you've got to do it. I hated that incident. I could see myself in the same position they were in. If people weren't safe, some of those guys wouldn't work with 'em. You pretty near had to be that way out there.

They was always pushing, though, to get as much done as you could. You didn't take time out to smoke, you smoked as you worked. You'd hang a cigarette in your mouth and just keep going. If you didn't work too fast, they'd just lay you off. There was always men setting there wait-

ing to go to work. Most of the men were anywhere from twenty to forty. They weren't the older ones, they were young guys. You had to be pretty agile. Your reflexes had to be good, and you had to be alert.

I didn't take any pictures of the Golden Gate Bridge. I didn't have money enough for that. When I was on the Bay Bridge I married a girl from back home. At the time I was on the Golden Gate Bridge we had a six-months-old boy. We didn't have anything when we started, so I was just trying to pick up enough money to get a car.

About May 1937, when I finished with the Gate Bridge, I came back to the East Bay. My wife liked it out here in California, and I did too, so this is where we stayed. I transferred from Local 261 of San Francisco into Local 304, the Laborers' union in Oakland. I was on the executive board of Local 304 for quite a while, probably from 1938 to 1940. About 1938 I got a concrete foreman's job. This was for work on tracks, sheds, and buildings so they could store the trains going to the Bay Bridge. I had a good crew. Most of 'em were black. That's the guys I wanted because they'd get out there and work. But I don't remember one black worker from the Golden Gate Bridge.

I was not active in politics in the 1930s, but I thought everybody should vote. In 1932 and 1936 I voted for Franklin Roosevelt for president. I thought he done a lot of good. I thought he was just as good as we could have got, and I still do. When the Depression hit in 1929, President Herbert Hoover was kicked an awful lot. But he was the man that started these bridges when he was in office. Hoover was from the South Bay and he gave the bridges a lot of good strong backing when they raised the money and had the plans worked up. Roosevelt was in on the finish.[19]

After that Bay Bridge work in '38, I got a foreman's job with Healy-Tibbitts Construction Company when they were putting in the foundation for the first building at the Alameda Naval Air Station. Then I moved over to dockwork and done a lot of that. In 1940 I went into Local 34 of the Pile Drivers, Bridge, Wharf and Dock Builders Union.[20] On one job I was doing some concrete work as foreman. When they didn't need a labor foreman for a little while, one of the guys says, "Why don't you join the riggers?" A couple of fellows from Local 34 was there, and they signed the card for me to join. I took the examination and passed. One day I was a laborer there and the next day I come back I was a rigger. Been one ever since. I still carry my card.

As a Local 34 member I done carpenter work and jobs with concrete pilings and forms around the docks. That's all Local 34's work. Local 34 is in the Brotherhood of Carpenters, too, so I could go to the carpenters' union hall and get a job building a house or anything else. I could work as a carpenter or as a rigger. Our Local 34 scale was a little higher, though. Pile driving was rougher and tougher. You had to dig all your manholes and move all those timbers. A lot of it was manpower. And you was in the water and mud and everything.

I'm telling you, a lot of pile driving was hard work. I did it all, but when World War II came, I was turned down for the war. I was a heavy smoker. They said my lungs was scarred. I never had any trouble with my lungs that I knew of, but they wouldn't take me. So I just worked straight through doing construction.

In the early 1960s we did a twenty-eight-story concrete high-rise job by Lake Merritt in Oakland. As the layout man I had to carry the building up plumb. I enjoyed that job and I remember it well, but the Gate's just about as good a memory of work as I have. That's where I cut my teeth. It was cold, it was windy, but it was refreshing. You was up in clean, fresh air. And I liked the structure. You like to see something that's going to stand that you can look back at.

I quit construction in 1974 after thirty-four years in Local 34. Now I can go back through all the jobs I worked over about a forty-year period in the whole area from Sacramento to San Jose down to San Francisco. I can pretty near go to 'em and point 'em out. They're still standing. But I think there's more special to the Golden Gate Bridge. A lot of people said it couldn't be done. It went in just like it was planned. It's something that was badly needed and it's been a boon to the country.

7

Evan C. "Slim" Lambert

SURVIVOR

When I was picked up, I had a dead man by the feet. That was Fred Dummatzen. Well, he wasn't dead, he was alive then. He was alive until we were coming in on the crab fisherman's boat. On the way in he died. He had been moving up until that time and finally he stopped. **EVAN C. "SLIM" LAMBERT**

Born in 1910 and raised in Washington state, Evan C. "Slim" Lambert worked in an Alaskan cannery and as a cowboy in Arizona before coming to San Francisco, where he found a job as a laborer on the San Francisco–Oakland Bay Bridge. In 1935 he became a labor foreman on the Golden Gate project, where he worked building the span's supply railroad and pouring concrete. He was badly injured in the Golden Gate Bridge accident of February 17, 1937, but returned to work just a month later. Lambert stayed on the Golden Gate project as a labor supervisor through the bridge's opening in May. After World War II he built a prosperous tourist-boat business in Hawaii. I interviewed Lambert in San Francisco on May 25, 1987.

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My father took off from home when he was fourteen. He'd been sent to live with an uncle because his parents were quite poor. His uncle mistreated him, so he ran away. He became a cowboy at first, then gradually

wound up on the West Coast up in Puget Sound in Washington. There he took to the water and became a boatman. I followed the same pattern as my father. I have been a cowboy and a boatman all my life.

My mother and father originated in the Dakotas. Maybe it was Wisconsin and later the Dakotas. Then both of them came west. They were married in Bellingham, Washington, where I was born in 1910. My mother's family was Scotch-Irish and French. My father's family was primarily Welsh, but there was a great mixture there. One of my ancestors on my dad's side was Spanish. One was American Indian. At the time they were married, my father was the superintendent of the biggest salmon cannery in the world, which was in Puget Sound, and my mother was a schoolteacher.

When I was fourteen my father died. When the Depression hit, things were hard. That was part of the reason I took off. My mother was having a hard time supporting us. There was a stretch when she was selling stuff like women's hosiery door-to-door. We were in bad shape.

I finished up at Fairhaven High School in Bellingham and went to Western Washington College in town for one semester. But I was terribly antsy. So I went to Alaska in my late teens. I worked in the fishing industry up there, where they called me Spike. In my cowboy days I was called Whitey. I got the name Slim on the Golden Gate Bridge job in San Francisco, where they started calling me that. I was a fisherman before I became a cowboy. After my teens I just worked in Alaska during the summers. In the fall I went to Arizona and got ranch jobs working as a cowboy.

In my younger days when I wanted to go somewhere, I hoboed because I didn't have any money for transportation. Always rode the trains. I did hitchhike a little, but there weren't too many cars in those days and people didn't like to pick you up if you got dirty. And it was hard to keep clean when you're doing that sort of thing. But with the train it didn't matter how filthy you got; the trains went just the same. I'd wind up under a bridge somewhere, swim in the river, clean up as best I could, and then grab another train and go off.

In Alaska you worked long hours. You worked as long as you had to. I didn't actually fish in Alaska, although I fished sardines one season in Monterey Bay, California. In Alaska I worked on a canning line in a cannery. We canned all the fish that came in that day, no matter how

long it took. If it took twenty-four hours, that's how long you worked. Usually we got a couple of hours' sleep. Then when there was a lull, you slept as long as you could. A lot of jobs used to be like that. I remember working in a fruit cannery in Bellingham where the standard shift was fourteen hours. In Alaska I got sixty dollars a month. But I was fed and housed, so I'd come down in the fall with two or three hundred bucks.[1]

They used to put on a dandy rodeo at Sumas, Washington, right on the Canadian line. I started going to that when I was about twelve and got hooked on the cowboy bit. Later I walked to a ranch and pestered them so they'd give me a job. Cowboy wages were nothing, twenty-five bucks a month or something. But when you went to town you were rich because you had no way to spend money on the ranch. So I never lacked for anything.

Cowboy work was all horseback in those days. Nowadays, they often expect cowboys to work on fences and stuff or possibly haying. But in those days, in a big outfit, you worked on horseback totally. I liked the excitement, I liked to ride, and I liked those horses. That was a great life. I loved it.

I picked up the name Whitey when I was a cowboy down in Arizona in the Southwest. There were very few blond men in that country. The men were almost all dark for some reason, and I stuck out like a sore thumb with blond hair. In Alaska they called me Spike because I was slender, that's all. Tall and slender.

When I was an Arizona cowpuncher a horse fell on me and I got hurt.[2] So the foreman sent me to Los Angeles with a shipment of steers. From there I went back to my hometown to visit my mother, then came back south to San Francisco. I was walking down the Embarcadero with my friend, Bob Halley, and a man came out of a shed underneath the Bay Bridge.[3] He said, "Do you fellas want to go to work on the bridge?" We'd been walking along looking up at this thing, never having any idea we'd wind up there. The man's offer came right out of the blue. We didn't even live in San Francisco. But we told him, "You just hired a couple of men." I didn't get back to Arizona until I went back for a visit after the big Golden Gate Bridge accident in 1937.

On the Bay Bridge we were roustabouts. We did all the carrying, moving materials around. When the Bay Bridge was finished, we went to the Gate. Anybody that had experience on the Bay was hired imme-

diately on the Gate if they needed men.[4] At first, we went off to work on the Gate Bridge by launch and climbed the towers. I was living in a boardinghouse on Eighth Street in San Francisco then. Later on, when the steel deck was in, we traveled on the deck. When we got on the Gate Bridge, we did more technical things. We built the railroad across the Gate Bridge that carried supplies, and then we poured the concrete.[5] Nowadays it would be the concrete union that would do that. In those days, the roustabouts did it. Then we stripped the forms afterwards, and that's when the big accident happened.

I hear all the time that you had to be a resident for a year to work on the Gate Bridge. No, when they needed anybody, they hired 'em. Same everywhere. You go to any company anywhere and they've got a stack of applications that high. But if you're there and qualified when they need anybody, you get the job. I don't have any recollection of a black person working on the bridge, though. There were immigrant fellows whose parents were immigrants, and a few older men who were immigrants themselves.

Building the Gate Bridge railroad, you had ties just like on land that span two beams. You lay the ties out and unload the rails off on each side on a stack of ties. Then you would carry the rails. No lifting equipment. Men carried all the rails. The whole gang of men would pick up a rail, walk out on the steel deck, and set 'em on the ties. Others would spike them in place, and then the next trainload of rails that came out would come out that much farther, and it just kept going.

We had some close calls in connection with that railroad. We were unloading rails off of a flatcar at the end of the track once and another train came out with more rails. It started to sprinkle, and that's dangerous as can be on steel and on railroad tracks. The engineer couldn't stop the train in time and he ran into the car we were unloading. The steel rails were flying around. We were all working there on bare steel. The bridge wasn't decked yet. How wide were those spans? Three feet, six inches or something? And we were running around trying to avoid those rails that were flying by us. The rails fell in the drink. It was a wonder that nothing fell on a ferryboat. That was a close one.

After we built the railroad, the concrete came out on the track in gondola cars. It would stop wherever the pour was progressing. We'd have a plywood walk laid out to the far corner. We had big two-wheeled

dump carts. We'd go to the spot of that gondola and fill a cart, back off, take it out, and dump it. Some men were working out there with vibrators to be sure that the concrete got spread into every corner to get rid of all the air pockets. Others were wheeling the carts or working the door on the gondolas. I remember my job. Most of the time I was up on top of the gondola with a long pole keeping the chute clear so the concrete would flow when they opened the door. That was up where I could watch everything.

When the railroad was built and they were pouring concrete, the train was going clear to the Marin tower. One time I had to go back in to the office for some reason. I would always ride the train once they were running the trains back and forth. When I came out of the office, I got on the train. There were three of us aboard—a brakeman, an engineer, and a passenger, me. It started to rain. Again the engineer couldn't stop the train. You'd have thought they'd figured out some way to make that foolproof, but they hadn't. They relied on sand on the tracks, and I think he ran out of sand.

We went over the high center and started down the slope. People don't realize that, but there's quite a slope there from the center both ways. The train started to gather momentum and he couldn't stop it. Just beyond the Marin tower they had a huge wooden scaffolding being built. There were a lot of men working on that wood. We were gathering speed, and I knew there'd be plenty of people killed if that train ever went to the end and went off. So I stayed on the train and hollered my head off instead of bailing off, and so did the brakeman.

Finally the men working on that wood staging realized there was something wrong. They looked up and saw this train bearing down on 'em, and they scattered like flies. They all got off of that staging and the engineer, brakeman, and I bailed off the train. We made it successfully, too, even though there was no deck there. We just went off of bare steel, but panels had been set here and there, and I remember going off on them. We slid all over, but nobody went through.[6]

When I survived the big accident of February 1937, I was fortunate in one way. I was a foreman of the stripping gang, so I wasn't engaged in anything when the accident happened. I was watching everything as we moved along. The rest of the men were busy doing things with their hands. That first hanger [hook] let go and then the second hanger went.

The southern (ocean) corner stage started to go down first. That's right where I was standing, so I just went off like a frog into the net headfirst.

When the staging tore loose and one corner went first, I think the men slid off the staging and it fell on 'em in the net. The net stopped 'em until the staging hit it. So I think some of 'em were probably badly hurt before they ever hit the water. But I was not hit by the staging. I just took a free fall. I knew that to have a prayer to survive I had to hit the water feetfirst.

People ask me what went through my mind. The only thing that went through my mind was survival. One thing that never occurred to me is anything of a religious nature. After my father died, I had to go to Sunday school, and then I had to go with my mother to church. I got all I could take of that. I stayed with my grandparents quite a bit, too. My grandfather was a real Bible-pounding minister. At his house, I had to attend prayer meetings several times a day. He would get drunk on religion and just holler, "Amen, amen, praise the Lord!" I got so full of that stuff I got turned off on religion as a kid.

Well, when I fell off the bridge, I did manage to hit the water feetfirst. I was hanging on to a piece of net that was hanging on to the staging. I was hanging on it headfirst. Before we hit the water I straightened up, let go of the net, and hit feetfirst. The only problem with that was that I jammed down into the piece of net with both feet. I went way down into that net because it stopped temporarily when it hit the water, and I was still moving. That's the only time I panicked during the whole thing. I was caught in the net and it was headed for the bottom. It was dragged down by that six-ton staging.[7] At first I couldn't get loose at all. I was fighting it. Then I finally calmed down and began to wiggle. I slid right out of it. But I was down a long ways, because I was bleeding at the nose and ears when I came up.

When I got up, I looked around, and an interesting thing happened. I was trying to take my gloves off. It was a matter of habit. I used to take 'em off and stuff 'em in my hip pocket. I threw 'em away when I realized what I was doing. Then I tried to get out of my coat, but I couldn't because of my broken shoulder. So I knew I had to have something to keep afloat. I couldn't swim well with all those clothes on, including a heavy coat. There was a lot of debris floating in the water. There was the wooden deck of the staging and the wood that the workmen on the bridge were throwing over the side because they felt that if anyone was

alive, they'd have to have something to keep 'em afloat. I got a couple of planks together, at first for myself.

Then I saw Fred Dummatzen thrashing about. There were two or three people floating around. I had a choice. I went to Fred because he was still thrashing around and I knew he was alive. The others appeared to be done for. So I got ahold of him and got him up on a couple of boards. Then I was going to see what I could do for the others. But the minute I'd let go of Fred and there was big wave action, the boards would separate and he'd start to go down. I decided, *Better stick with what you got,* because I knew he was alive. So I stayed with him. The others disappeared.

The Coast Guard came out and circled several times. But they never came far enough. They would always get out near me and then turn around and head back. There was so much debris in the water, it would be awful hard to see a person floating with just their head sticking up. It would be a real difficult job to spot us. But they actually didn't come far enough.

After a while I heard this power boat coming in, *putt, putt, putt.* It was coming in from out at sea. I looked around and here was this crab fishing boat with one man at the helm.[8] He was looking at all this stuff in the water up ahead of him, trying to figure out what in the world had happened. He kept looking from side to side and he almost went by us. The fisherman was some little distance off, maybe fifty yards. He was almost by and took another look around. His eyes hit me, and what a relief. I figured, *My gosh, we're going to make it.*

Slim Lambert, Golden Gate Bridge labor foreman, circa 1936. Among the twelve men who fell two hundred feet into the sea in February 1937 when a huge staging board tore through the safety net, Lambert was one of only two who survived. Courtesy of San Francisco History Center, San Francisco Public Library.

But when I was picked up, I had a dead man by the feet. That was Fred Dummatzen. Well, he wasn't dead, he was alive then. He was alive until we were coming in on the crab fisherman's boat. On the way in he died. He had been moving up until that time and finally he stopped.

The fisherman had an awful time getting Fred aboard, and then he had a hard time getting me aboard, because I had a broken shoulder, broken ribs, and a broken neck.[9] Very few boats are rigged so you can pull anybody or anything over the side, and the fisherman wasn't a big man. Fred was big. I wasn't very big, but Fred was a pretty big man, and I was a wreck. But the fisherman managed to get us into that boat and bring us ashore. We couldn't help Fred any, or very little. It was too bad Fred died, but that's how it happened. Nobody ever reported it that way, and I was in the hospital for a while and in no position to refute anything.[10]

Coming in it was terribly cold. The fisherman put Fred alongside of the engine. I stood on the other side. The fisherman tried to get me to lie down by the engine, too. But I was going to be tough. I knew if I laid down I'd never get up. Instead I stood on the way in, crouched over that engine, trying to get a little heat. The fisherman took us in to the Coast Guard Pier, which is out near the bridge. Then, when it came time to try and get off the boat, I couldn't walk. So I didn't walk off after all.

They put me in an ambulance. I think it was the third hospital before they accepted me because mine was an industrial accident. Unless you went to the right hospital, they wouldn't touch you. I think I went to St. Mary's, I'm not sure.[11] I was in the hospital for maybe ten days. When I came out, I was wearing an airplane splint, the kind they stick up over your head. I had that on for a month while my shoulder was healing.

A close friend I grew up with and went to school with came to see me in the hospital. This was my friend Bob Halley. He was the foreman of the other staging. There were two stagings that started at the center of the bridge, going in opposite directions. I had a whole lot of people who visited me in the hospital. But Halley was my close friend. My other close friend, Jack Norman, was on my staging. He died in the fall.

Fred Dummatzen, who died in the tragic February 1937 accident, standing under Golden Gate Bridge cable strands. Lambert struggled valiantly to save Dummatzen that day but was ultimately unable to do so. Courtesy of Labor Archives and Research Center, San Francisco State University.

I had worked with Dummatzen for months. We didn't buddy together, and I never saw him other than work, although he was a friend. He had a happy disposition and was well liked by everybody. But we never sat around shooting the breeze on that crew. I never got well acquainted with any of them.

Things were a lot different in those days. There was no coffee break where people could talk. You hardly ever slowed down to a trot. There was men waiting right there for a job if anybody slowed down a little. Everybody felt pressure. To keep your job, you had to move fast. No sitting around. Lunch was only half an hour, and you had to hurry right along to get your lunch eaten comfortably and get back to work. We started at seven-thirty, had lunch at eleven-thirty, and then worked till we were through at four.

If you went to the restroom and stayed more that thirty seconds, the boss would come and see if you were sick or what was wrong with you. Lots of men were fired right on the spot if the boss thought they were malingering a little bit. Jobs were very scarce and valuable, so you didn't spend any time chit-chatting. Anytime you weren't working you were trying to rest. You weren't chit-chatting.

After the 1937 accident I went back to work on the bridge.[12] I was in charge of cleanup on the main deck. I don't think I ever went down on staging, though. So I never really had to work with my hands after that. I was just supervising. I was still there the day the bridge opened. We were doing the final bit of cleanup. They tried to get it all done before the opening day, but you know how those things are. We were still there with trucks, taking lumber and all kinds of stuff off the bridge and getting it cleaned up when it opened.

The May 1937 opening celebration was something on the order of the one they had in 1987. The people walked across the bridge, but very few compared to the mob that hit the bridge yesterday.[13] Automobiles crossed with dignitaries and there was a lot of hoopla. It was much the same, only not near as big.[14]

After the bridge job I went over to a job on Treasure Island in San Francisco Bay. Anybody that stayed through the work on the bridges would be hired immediately on any construction job because you had to be a pretty good man or you wouldn't have lasted on the bridges. On Treasure Island they were putting up lots of structures for the 1939 San

Francisco World's Fair. I worked there until the spring of '39. Then I grabbed a ship and went to Hawaii.

I was actually on my way to Tahiti, but I went to Hawaii first. I'd dreamed about the tropics all my life as a kid. Going to the tropics was something I had to do. I've always been a warm-weather guy. I don't care much for this San Francisco weather. Of course, I was young then. It didn't much matter. From the Gate Bridge job I used to watch those ships going off to Hawaii. I knew I had to be on one. So when the work wound up over on Treasure Island, I jumped on a ship and went.

I had gained some notoriety from the big bridge accident. A reporter on a newspaper in Honolulu got the word somehow that I was on that ship. So I made the front page when I hit town. The superintendent of a steel work gang hunted me down because they were short of construction workers. He offered me a job I couldn't refuse. I went right into the steel gang, and we built everything connected with buildings and steel structures, including huge steel storage tanks and all the structural parts of power plants.

When the Japanese bombed Pearl Harbor on December 7, 1941, I was living in a little cottage in Waikiki across the street from the Royal Hawaiian Hotel in Honolulu. I was married then to Elinor "Cotton" Jenkins and we were living there. She had come over in the fall of that same year. We met on the beach in Waikiki. Isn't that romantic? She was fresh out of school and looking for a job, had visited Hawaii from Pasadena with her folks, and decided Hawaii was where she wanted to go. Well, a bomb fell right in the middle of the street, about a half a block from us, so we knew they weren't fooling. It was an accident, the Japanese weren't trying to bomb Waikiki, but stuff was flying around everywhere.

I was deferred from military service all during World War II as key personnel. That's what they called us. I got bored with my job in the steel industry and tried to get out of the deferment, but I couldn't get out. After the war, another fellow and I started a little construction company. Mostly we did destruction. We bought surplus metal of all kinds. He was a welder by trade, and I learned to weld during the war when I was in steel construction. We bought all manner of military equipment. It was for sale cheap after the war.

This fellow and I were great boaters in our spare time. We wanted to get into the boat business. It turned out that he was color-blind and

couldn't get a license. Instead of joining me on an idea I had, he went back to work at his trade. I got another partner. He and I bought thirty LCMs—landing craft mediums [LCM actually stands for "landing craft, mechanized"]—from the military. We scrapped them out and sold the engines. We made ten thousand bucks in sixty or ninety days. That was the first real money either of us had ever seen. With that I got another partner, and in 1949 we got into the sightseeing boat business. I've been at it ever since.[15]

I was a staunch Democrat in the 1930s, and I was strong for Truman in the 1940s. I voted for the Democratic candidate, Adlai Stevenson, for president instead of Eisenhower in 1952 and 1956. I thought Stevenson was a good man, and I'm suspicious of military people running a government. They're used to giving orders and that's how it is. Civilians are used to being elected. But when you become more affluent you usually become a Republican, which has happened to us. This was quite a few years ago now.

When I was young after high school it was otherwise, and I did many different jobs. I had itchy feet and I couldn't stand one thing for very long. I even worked in the sawmills around Tacoma for a short time. When you had to belong to a union, I joined, although I never had much to do with them. I've belonged to the ironworkers', the boilermakers', the carpenters', and the laborers' unions in my life. On the Golden Gate Bridge job we had to join the union somewhere along the line. But I never went to union meetings if I could avoid it. They are the most boring things in the world.[16]

Regardless, looking back, everybody that worked on the Gate Bridge in the 1930s absolutely knew it was special. I'm sure any man that ever had anything to do with that bridge thought of it as his bridge. I've heard that said so many times when I worked there. Of course, none of us ever dreamed we'd be around when they celebrated the fiftieth anniversary. That wouldn't even have occurred to us.

8

Al Zampa

LEGEND

Before I got out of the hospital, all my buddies would come to visit me. They told me, "Al, you are all through. You lost your nerve. You'll never be an ironworker anymore." Now, this was 1936, and I worked all the way until 1970 before I retired. Well anyway, I said, "I don't know," and I kept thinking about it. Then I said, "Hah, I know I can make it." **AL ZAMPA**

The son of Italian immigrant parents, Al Zampa was born in 1905 in the town of Crockett in Northern California. He was already an experienced ironworker when he found a job on the San Francisco–Oakland Bay Bridge project in 1934. He worked there for two and a half years before moving on to the Golden Gate Bridge in mid-1936. Zampa broke his back in four places in a fall that October, but he recovered fully and returned to his career as a high-steel "ace" a few years later. A veteran of many construction projects, including the Carquinez Strait bridges built in the 1920s and the 1950s as well as the Golden Gate, Zampa became an ironworker of legendary reputation. In 2003, when a third Carquinez bridge opened, it was named the Al Zampa Memorial Bridge in his honor. Isabelle Maynard interviewed Zampa in Crockett during sessions held over the winter and spring of 1986.

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I went to work on the Bay Bridge in 1934 and joined Pile Drivers Union Local 34. The Bay Bridge job was non-union then. It did not follow craft lines. You just worked at the best thing you were good at. I was working in the raising gang, putting up steel on the Bay Bridge, at the time the Golden Gate job was going. By 1935 to 1936, we could see them spinning the cables on the Golden Gate. I knew then I wanted to work on the Golden Gate Bridge, which was an all-union job. So I went to San Francisco and joined the International Association of Bridge, Structural, and Ornamental Iron Workers Local 377. I think I got in for five dollars. The business agent said when this job stops, it's going to cost you a hundred dollars. At the time, the union was just getting started.[1]

When I joined the Pile Drivers Union I had first worked on the foundation on the Bay Bridge. It had the deepest pier in the world.[2] We got through there, and we went up on the bridge driving rivets and everything. Then we got done there. This was for American Bridge Company. I'd worked previously for them on the Carquinez Bridge.[3] Then we got just about done with most of the steel work that we wanted to do on the Bay Bridge, including work for American on the San Francisco side of the span. I had worked earlier on the camelback spans on the Bay Bridge for Bethlehem Steel.[4] Now Bethlehem said, "Well, we are all ready for the steel on the Golden Gate Bridge. Come on, Al, we will all go there."[5] That's how I went on with the Golden Gate Bridge. I was already hired, but I just went in and signed my name like the rest.

My first job on the Golden Gate Bridge was putting up steel for the roadway. That was on the Marin-shore towers. We were going from there toward Sausalito in Marin County. Another gang was going from that tower area toward San Francisco. So I was working on the Marin side, and we got quite a bit towards there, I guess about two-thirds across. The steel would come up to the towers. They put it on a flatcar and rolled it to us. We would get it and put it in one or two days at a time. Then we would move the rig ahead and start all over again doing the same thing, putting in top chord, bottom chord, floor beams, and stringers.[6] The floor beams go across and the string around the length a ways.

One Monday morning I just started work. It was wet, cold, and slippery from the fog. We were getting ready to move the traveler construction rig ahead. In order to do that, we would go out so far, then have one of the floor beams ready to be put into place so we could move the rig. I'd

Al Zampa (*second from right*) on the Bay Bridge, 1935. Expert high-steel men like Zampa were known as aces. Courtesy of Richard L. Zampa and John Robinson. Copyright Alfred Zampa Memorial Bridge Foundation.

come over to help jack the stuff up to get it ready to move, or slide along down the stringers. The stringers are twenty-four to twenty-six inches high. When you get down, it is quite a deep step. As you go down, you put your foot down straight, which I did. Evidently I stepped out too far. I hit my heel in the wet steel and I flipped.

As I was going down, I remember that I flipped three times.[7] I was just rolling around. I didn't have any fear because I figured the safety net would catch me and I would bounce up and land on my feet, like I seen on the trampoline in the circus. Well, I hit the net and the rocks below at the same time. I bounced, but I bounced off the net. The net went down

and hit the rocks, and I came up. The first drop when I first hit didn't seem to hurt as much as when I bounced and I came down.

That's when I had the pain. I was taken to the hospital right away. They slung me to the tower, picked me up in a basket, flipped me up in the air over the top of the tower, and lowered me down to the ambulance. They took me to St. Luke's Hospital in San Francisco. There they jacked me up and put a body cast on me right away. I was in the hospital about twelve weeks. We figured it was about forty-three feet I had fallen.[8]

That fall was when I got to be a member of the Half Way to Hell Club. There was about eight of us that fell in the net.[9] The first three got hurt and I was one of them. I was the first one who fell in. Those men came to visit me because I was in the hospital, and we formed a club there at St. Luke's. They took pictures of us. We were all jolly and shaking hands. I was up and around pretty good then.[10]

Before I got out of the hospital, all my buddies would come to visit me. They told me, "Al, you are all through. You lost your nerve. You'll never be an ironworker anymore." Now, this was 1936, and I worked all the way until 1970 before I retired. Well anyway, I said, "I don't know," and I kept thinking about it. Then I said, "Hah, I know I can make it." When I got out of the hospital, instead of coming right home, I went out to the bridge and walked all over. I was a little pale from being there, but everything was okay. It didn't bother me at all when I got ready to work.[11]

I had a steel brace on when I left the hospital. I took it off a little each day and then put it on. It kept you straightened out. I didn't do ironwork for about two years. I had to take time off. But I got compensation, which wasn't much. Twenty-five dollars a week for eight weeks, and I had a wife and a couple of kids.

I couldn't get by on that compensation, so I had to do little odds and ends. In order to get by, I had a couple of rowboats I would rent out for bass fishing. I would get a dollar a day for the boats. Pretty soon I built some more. At one time I had twenty-six boats while I was a convalescent. I'd rent them out.

People would give us credit for groceries, three hundred or four hundred dollars at a time. I owed three hundred dollars for groceries several times, but when I worked, I paid them off. One man would come out to our area every three months. He'd say, "We have one pump full of Oakland Macaroni Company macaroni." They were the best. We'd put in

an order for maybe a hundred, one fifty, or two hundred dollars' worth, everything we needed. It would last us for three months. A couple of times we didn't have enough money. We'd say, "Nah, I think we'll get by with what we got." He'd say, "No, don't worry about me and don't worry about the bill. It's just like money in the bank with you. We know you." He duplicated the order we had done three months before. I didn't want to order nothing because I didn't have the money. They just done it anyhow. Ha, them people were good to me and good to my wife. She'd go out and get credit anyplace, just looking at her, even when I couldn't get ten cents' worth of credit.

My wife left it up to me about not quitting bridge building. She knew I was stubborn. When I walked out on that bridge instead of coming home, she knew I was going to go back because I told her it didn't bother me at all. She got used to the danger. Later a couple of times she said, "Well, I don't know, you have been pretty lucky, but how about this job?" I'd say, "Don't worry about it."

I got married at twenty-three years old. I knew her in our high school at Crockett, California. Her folks and my folks came from the same town in Italy. She was born and raised here like I was. We're the only ones that stayed true—an Italian and an Italian. All the rest are mixed. We're the only ones that stayed straight.

Back then they hated Italian people just like they do the blacks and the Mexicans and all now. It was kind of hard for us, but it didn't bother me too much. Later on I understood. I didn't understand what it was all about at the time when I was young. Now I know what my dad had to go through: "Damn dago" and this and that. My dad worked seven days a week at a smelter company near Crockett. He had to. He never got more than four dollars a day and he had five kids. Them days there was no welfare, no nothing. If he didn't work, we'd starve.

Many times when I was a kid we didn't have too much to eat, so mom would make bread that would last for three or four days or a week. It would never mold, but it got hard. For breakfast I had to soak that hard bread in a bowl of wine. The Italians took wine for food then. But we didn't have all the ham and eggs and stuff you have now, like hotcakes and all. We didn't know what that was. We come up the hard way.

I didn't own a car until 1928 or 1929. It was an old Ford. We had to take the bus or the train. There wasn't too many buses, either. Mostly we'd

take the train. We'd go way out in the hills and bring a lunch. There used to be all kinds of game around here. You'd see birds, robins, rabbits, and once in a while a coyote or wildcat. Sometimes we'd barbecue out there. Remember, we didn't have no radio, no TV or nothing in them days. We were interested in the fights and the World Series, but we would have to wait for the paper or when the telegraph office nearby would announce it to somebody and we would find out who won.

We used to go to San Francisco on the train. We had a little depot down here in Crockett, but they don't stop here anymore. You'd go to Oakland at Sixtieth Street, get off the train, and walk to get on the ferryboat to go across the bay. In San Francisco we'd take the streetcars where we wanted. For a nickel you used to go all over San Francisco and transfer there. You'd get off one streetcar and transfer to another.

I traveled for work, too. I was married while I was in Stockton, California. My firstborn was in Stockton. We was building a bridge for Santa Fe Railroad then. I built three of them up by the Stockton area: Old River, Middle River, and the San Joaquin River. From there we went to Arizona. My wife went with me. We took the baby with us. He was only about a year old. I worked in Arizona for about seven or eight months. From there they sent us out to Texas. We were forty miles out of Amarillo, way out in the sticks. They built a camp there. They had a camp for the men and then the married men built little houses, for they were going to stay a long time. Me and my wife lived in a tent. I boarded up one floor about this high with a ten-by-twelve. We had a four-lid wood stove. I made a stationary bed in a corner, everything all ten-by-twelve, for me, her, and the baby.

I worked as a sandhog in Texas.[12] You work under compressed air down underneath a pier. It was different from coal mines. They don't have compressed air. This was air pumped in to you. In Texas they had a flood; it washed all our tramway out and there was no work for us outside [because we couldn't get in materials]. So a guy says, "Al, you can go down the hole to sandhog until we get our piles." In Texas they don't have no trees or nothing. We had to wait about six weeks to get piles from Oregon to bring to Texas. I said, "Okay," so I started there.

I guess I was about fifty feet deep already underneath the pier. The pier had a steel cutting edge all around and you had wood planks on the sides. You'd have to work in there, dig underneath the concrete and the

pier. The air pressure held the water out. To dig, you'd have to have air spades and cut up hard mud. You're working in a chamber the size of the pier that was underneath the water and underneath the pier.

The air wanted to escape and we had a four-inch blowpipe. You fed it a little water and a little mud and kept digging so much at a time. You'd get all that mud, rocks, gravel, everything, and it went up through the pier. It shot out like a cannon outside. I went down about ninety feet. It was kind of like working underneath a bell. There was air under there all the time you were digging farther and farther. If you got a blowout, you'd be drowned like rats. When you were finally done, that's the base. You come out of that, and that stays down there while you build up from there.

Pretty soon we got done with Texas. My mom was awful sick, so we came back to Crockett and stayed until mom got well. Then I went to different jobs. When my two boys were getting five or six years old, I figured that I didn't want them to go to this school and that school. I wanted them to go to our school in Crockett. So I came back right here where I was born and rented us a house. I wanted them to go to the school where I went. When I graduated from grammar school, there was only five of us in the eighth grade. I wanted the boys to come over here and live like I did. I thought my kids was "it." I just loved my kids.

Later on, in high school, the boys got to play sports. I was working as a rigger for a contractor at Union Oil. Every Friday afternoon the kids would play baseball. I'd take off. The boss would say, "Hey, you don't be taking off every Friday." I'd say, "What do you mean I don't? I've been raising my kids and waiting all these years to watch them do that. They come first. If you want me here, I take off Fridays. Otherwise, write it out, give me my pay, and I'll work someplace else." That's the way you have to be in this kind of world. Otherwise, they will step all over you.

I done that and I never had no trouble. I would get calls all over to go to different jobs. They all knew all about me. I'd get a job anytime. I'd never starve. They'd say, "That guy, he's all right. Hire him, you'll make money with him. He works and he knows what to do and how to do it." Them things were tough and I had a wife and kids, but nobody steps on me. I had confidence and I knew all I had to do is get a job. Once I got the job, I'm there because I'd work. They were paying us top money, so you got to give them a good job. I always did, and I'd preach that to my kids.

I did box a little bit, too. I had fifteen professional fights. I only lost the first one. I had to fight under a different name. If my dad found out, he'd beat the hell out of me. This was when I was sixteen, seventeen, eighteen years old. My dad didn't want me working on the bridge, either. He said, "That job is for desperate men who don't care. They're ready to go down and get killed any minute. You're crazy to do that kind of work." I said, "I know, Dad, but I love it. I'm going to do it anyhow." Afterwards I would see him. He'd get a few shots under his belt and he'd be bragging about me. My mom always told me, "Be careful, honey." I'd say, "I'm always careful." I got tired hearing about it.

I met the best bridge men in the world on the Golden Gate. Different fellows were from all over the country. I would take them home for dinner because they were away. Pretty soon the job would be over and they would go back home. Some of them got killed. I lost quite a few of them that were damn good friends of mine. The good ones we'd call aces. That was a fellow that can do the work, do it good, do it quick, and do it up in the air all the time with no scaffold, no nothing. I was one of the aces. I was pretty good until I seen some of them. Some of them were as good as me or better. Most of them were older than I was. I was thirty.

At the time, most people didn't think that bridge could be built. Nine out of ten would say, "No way, never could be done." The water was too rough, the tide would go out fast, and waves would come in higher. Earlier I was doing the same thing over on the Oakland side. It wasn't very rough there. It was nice in the bay. The Golden Gate was out in the ocean. When we used to go to work from the San Francisco side, they used to ferry us over on a little passenger boat. It could scare me going to the job and coming back. There were big waves coming back that went from one side to the other. That was the only time we were kind of leery. We weren't leery up there.

Building a bridge, you hope that everything will do well. It works on you a little bit. You say, "Well, I wonder if that's going to hold up? I hope those engineers are right." God bless them, they were right on the Golden Gate. The engineers designed the bridge and checked every piece of steel that went in there. They said, "This one got to do this work, this one got to do that work." They were very good. I'm sure glad they were.

I never met Joseph Strauss, the chief engineer, but I saw him around a lot of times. I never shook hands with him or nothing. I was out there

working. We were busy. We couldn't leave and go shake hands with him. That was for the upper man. See, all the big shots were the ones that were doing all the hand-shaking. In fact, they should of come out and hand-shaked us. We were the ones doing the work.

While working on the Golden Gate Bridge you didn't have much time for lunch. You would have half an hour. So we would bring a brown bag up there. When we were up in the air, we would just bring lunch in our overalls or something and sit it someplace, eat it up there, and then go back to work.

When you are putting up steel, you can't be tied off. We got to be moving around. The riveters and the bucker-ups, they're tied. They had a float, or scaffold, to work on. We didn't have no float. They had a swinging scaffold tied with four lines with six-by-four panel board. It has four lines in each corner tied up. There's no place to stand or nothing. We would use that to connect and just walk the beams. On the beams, the wind would blow. Once it blows, you got to lean toward the wind. It was so windy on the Golden Gate Bridge moving from one place to another that we had a wire that we tied on the suspenders for a handrail. Once in a while we could grab it. The nearby steel cord was, oh, two and a half feet thick, but still it was slick with nothing to get ahold of.

Rain didn't bother us much. If we got too wet, we would knock off. We'd quit if it was too dangerous. Bethlehem Steel and American Bridge were self-insured. So if I had an accident, they had to pay. That's one of the reasons they worked the safest. Now there is no more Bethlehem Steel and no more American Bridge in the erection department anymore [in 1986]. I did try at one time to sue Bethlehem for negligence on the net. But they kept postponing and all the guys who were my witnesses took off. I never got a dime out of it. If it happened now, I'd be a millionaire.

Sometimes during that Depression I'd look down from the Golden Gate towers when I was up there and there'd be 150 people waiting for a job, waiting for us either to fall off or quit. They'd have these five-gallon tins with big fires where they were cooking bacon butts and beans. We were cold up there looking down at that fire. It would warm us up just looking at it.

Once in a while some guy might have enough. He'd have a close call and he would quit. Or maybe some guy got hurt and there'd be room for someone. Sometimes they'd have a little extra work and they'd hire a few

men. They'd ask for their experience and pick them out. They didn't even have to write an application, but somebody always knew them. He'd say, "I know this fellow there. He's okay, he worked with me on this job, he's a good man." A good hand they called them. So that's how a man got hired. If they didn't know you, it was pretty hard. You'd be "best man" [left jobless] if nobody vouched for you. There was no work no place out around the country, and that's one reason they come from all over. But they were also like me: they wanted to work on the Golden Gate Bridge, one of the most famous bridges there is.

The Depression was tough, but not for me because I had a job. Working on the Golden Gate, once in a while we would go to Sausalito by ferry to raise a little hell. When you worked five days a week, Saturdays and Sundays were ours to recuperate. Sausalito was wild in those days. I had a lot of good times there. I would drink mostly. Most bridge men drink like hell anyway. We used to drink and shoot dice and play poker some days. Sometimes we would be there all day. That's another story.

To start with after my back healed, I did safer jobs. I went to work at Mare Island [Naval Shipyard] during World War II. I got to be a first-class shipfitter, so I worked there for about two years. Then a fellow said, "Well, Al, it's time to come on back." I thought, *Might as well.* I was making $9.40 a day at Mare Island, and I went back to bridge and building work and I think we were getting about eighteen dollars a day. I worked mostly railroad bridges, high-rises, and rigging.

We used to go all over for jobs. Then we would come back home. They would either call us or write us to come on up to work: "I got a big job here and there." We'd go chasing rainbows. Wherever they'd pay the most, I went. But then I wanted to stay put. I got tired of going around. So I had to take a lot of heavy rigging and high-rise jobs. You'd work for one company, go to another, and then back to the same company. I remember when there were no buildings out on Market Street in San Francisco. Now you go up there, it's a different city. I practically get lost, but I lived there when I was working on the Golden Gate job.

When my sons wanted to be ironworkers, my wife said, "Why do you want to be an ironworker?" My son said, "Because Dad is home most of the time in between jobs." Both my sons became ironworkers. They had two years at junior college and they were both good football players. Finally they wanted to do the same things I did. I left it up to them. "If

you want to do it," I said, "it's good work. If you want to work with your hands, I don't think you can beat it. You don't have no tools, no nothing, just your ability. Bet you could do it."

My boys went through apprenticeship in the early 1950s. They didn't have to because I was on the Local 378 executive board and helped run the local. I could've got them a union book, but I wouldn't go for that. I thought, *They got to go through the same way as the rest of them*. I was honest all the time, even for my own sons. All I had to do is say, "I want a book for them." That's how easy it was for me to do, but I didn't do it. I wanted them to go through apprenticeship to start off.

About the time they built the second Carquinez Bridge, I guess it was 1958 or 1960, we was working up in Fairfield, California, putting up these hangars.[13] When the American Bridge Company first started the Carquinez, they brought in practically all their old followers. They were allowed to bring in some of their key men from the East after they got a transfer into our local. See, you had to be out of Local 378. Little by little, all them hotshots from back east quit. They wasn't making enough money. It had been raining off and on. They would lose two or three days a week. "Hell with it," they'd say, "we're gone."

Pretty soon the company needed a lot of men. But we were getting the same money for a lot easier jobs. My two sons, Gene and Dick, and Giggs Madden, who was just like one of our sons—they were all raised together—and I were sitting there talking in the union hall. We said, "Why should we go on that bridge? That's hard work and it's dangerous." We wouldn't go unless we had to. Then the union business agent came out and talked to us. He said, "Al, they want fifteen men out there and I can't get anybody to go out on the bridge. God darn, I'm worried."

It was warm, so the boys and I went outside, sat on the grass, and talked some old times. The business agent came out. He said, "You have to go. Otherwise they are going to hire non-union guys from the street." "Well," I said, "if they can do it, let them have it." He said, "No, no, we got to keep the jobs over here. I know damn well that if you and the kids go out, I could get these other guys to go out, too." I said, "Dick, Gene, Giggs, how about it? If you guys want to go, I'll go. You guys say no, I won't go either." They said, "Oh, yeah, Dad, let's go. We'll do it. We live near there anyhow." So we went and sure enough, the next week, here they all start coming. They said, "Well, if it is good enough for Al Zampa

and the kids, it sure got to be good enough for us." So father and two sons helped bring the men over there. One or two ironworkers had one son, but I'm the only one that had two sons.

In 1970, I was sixty-five years old and I was still connecting steel up in the air. I didn't have to retire, but one of my sons was the president of Local 378, the other was the financial secretary, and I was still on the executive board. There was no other place in the United States where two brothers had every local office locked up and their dad was on the e. board. So I said that's the time for me to quit because I could only hurt them. Naturally they would want to give me all the good jobs. The other ironworkers would say, "You give the old man the best jobs." When the next election came, the members wouldn't elect them.[14]

I was never scared for my sons. I knew they could do the work and were good at it. They were chips off the old block. Of course, you had to be good. Otherwise you'd get laid off. Some guys just starting out—this was before the apprenticeship school—could do it. In three weeks they were pretty good men. Some of them could never make it. They were scared. One time, one man fell in the Gate there. He just froze. It took three of us to break him loose and lower him down. We had him tied up and we let him down. He went on and never did come back. That happens to some of them. They just grab everything. I don't know what comes over them. I never had none of that. I could look down. Some said, "Don't look down." It never bothered me.

I figured if I fell, I'll just double up. This was on the Bay Bridge. "If I roll up and hit on my back," I said, "I'll have a chance." I always thought I'd have a chance. I figured I could grab something. You had that in you. It took confidence and courage. You just have to have it inside and know you can do it. If you didn't have it, you couldn't do it. It's according to guts. You have to have about ninety percent guts and ten percent know-how.

You also have to have strength, good hands, and be quick. Your feet count, too. You have to be the athletic type. You got to have balance and you can't be clumsy or you won't hold. But the Golden Gate spoiled a lot of us because we had the safety net. That was the first time they used one. There was nothing on the Bay Bridge. From the Golden Gate on, they all had nets. We had a net on the second Carquinez. There was no net when we put the steel up, but then we put a little net up for the guys coming behind us, like the bucker-ups and all.

All of the bridges are different. The 1936 Bay Bridge is about six or seven kinds of bridges. You got trusses, you got camelback spans, you got cantilever, you got suspension, and you got all the approaches. It is eight and a half miles long. Its suspension section is longer than the Golden Gate span.[15] The Golden Gate is just one type. It's suspension. See the difference? The Bay Bridges are far more beautiful than the Golden Gate.[16] But the Golden Gate is a great bridge. Both of them are beautiful. I think they're the most wonderful bridges there is in the world. That's not because I worked on them, but just if you looked them over.

For about fifty-two years now [in 1986] I have been a union man. I worked for ten years before I joined the ironworkers' union in 1936. But I'd already joined the Pile Drivers for the foundations on the Bay Bridge in 1934. I paid all my dues. I don't know what I would do without the unions, especially Local 378 in the East Bay. I joined the ironworkers' Local 377 of San Francisco first. To be on the Golden Gate, you had to be out of 377. Then I transferred over to Oakland and been there ever since.

I also still remember President Franklin Roosevelt, who helped the unions a whole lot. He was "it." If it wasn't for Roosevelt, we'd still be fighting for unions.[17] Yeah, he was a great man. Now [1986] Ronnie Reagan's there as president. He's against our union. He was a union man himself and president of his local. He was a Democrat, now he's a Republican. I don't know—I can't understand his job and I know he couldn't understand mine.

I've been up on the Golden Gate towers and I've been ninety feet below the water working as a sandhog in Texas. So I've been close to hell and I've been up near heaven. These younger kids read about it now and they come and meet me. They say, "That's Al Zampa. I see him on TV all the time. He's an ironworker. Hell, he's a legend." I feel a little proud, naturally.[18]

Working on bridges, you just got a wonderful proud feeling that comes up to you. Some of us that done the Golden Gate are still very proud to be one of the boys. It was a big thrill to me. I loved it. Hah, you had to love it. Otherwise you couldn't do the work.

9

Mary Zita Felciano and Patricia DeWeese

NURSES

No one really realizes what those men went through. In those days, we only had two or three different kinds of medications. We had morphine, Panafon, and sleeping tablets. There wasn't much else, but the men seemed to get along on not too much medication, although they would be sick to their stomachs and suffering from the shock of having fallen, been injured, and been brought into a hospital.

PATRICIA DEWEESE

Mary Zita Felciano, Sister of Mercy, was the daughter of a Portuguese immigrant father and an American-born mother whose parents were from Italy. She was born in 1909 in Santa Rosa, California, and was raised there. Sister Mary Zita trained as a nurse in San Francisco during the mid-1920s and took her religious vows as a Sister of Mercy in 1930. She supervised the orthopedic floor at St. Mary's Hospital in San Francisco when the Golden Gate Bridge was under construction and helped care for the workers who were injured in the tragic Golden Gate Bridge accident of February 17, 1937. I interviewed her in Burlingame, California, on August 6, 1987.

Born circa 1918 and raised in Watsonville, California, Patricia DeWeese entered nurse's training at St. Mary's Hospital in San Francisco in 1936. There she helped care for Golden Gate Bridge workers injured on the job,

including those hurt during the February 1937 accident. She walked across the bridge when it officially opened in 1937 and did so again in 1987, when the iconic structure turned fifty. I interviewed her in Burlingame, California, on August 6, 1987.

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SISTER MARY ZITA FELCIANO

In 1926 or 1927, I came to San Francisco when I went into nursing. I graduated from St. Mary's Hospital in the city, worked for seven or eight months, and went into the novitiate down in Burlingame.[1] Then I went back to St. Mary's.

I was born and raised in Santa Rosa, California. My father was from the Azores off Portugal. He came to America when he was sixteen and started bottling beer in a lager company in Sonoma County, California. He took night extension courses from the University of California and worked his way up from accountant to secretary of the firm. My mother was a Tuscan. She was born in Santa Rosa, but her parents came here from Italy.

When the Golden Gate Bridge was being built, I was in charge of the orthopedic floor at St. Mary's. The insurance company that dealt with the bridge was bringing the injured men to our hospital. They would come up to the orthopedic floor. That's how I happened to meet the boys that built the bridge. I always called them "the boys." I'm sure they were all men, but they acted like boys.

They were rough-looking men, they were big, and some of them were bearded. They looked so manly and yet they were just like little kids. They loved to have attention. I think that poor men didn't get much attention, you see. But I found them to be just softies. They had big hearts and they were particularly thoughtful of each other. It did your heart good.

I can still see myself going into this six-bed ward and seeing this man who had permission to be up. He was over at another man's bed. He was up in his nightshirt and he's over helping the other man by holding a basin for him. The other poor fellow was sick. The first man got up and went out of his room to go over and help the other man instead of getting

a nurse. He thought he could help. They were always helping each other. They were very rough and ready, but they were very thoughtful men.

And they'd tell me such tales. I was sure they were putting elastic in them. One day they told me that when they were pouring concrete one of the men fell into the mixture and so there was a man buried out there in the concrete in the bridge. I kind of believed it at first, but it wasn't true at all. They were just pulling my leg.

But then they couldn't stand shots with this little bitty needle. I gave one fellow an IV in the arm. Oh, he didn't think I could do it. Here were these big burly men building a bridge and going up near the top of these cables and then you want to shoot them with a little needle. They were like children, they were so afraid of it.

I was a fiery little supervisor then. I used to go on the wards to see if the men were misbehaving. One day I went and they were playing cards. All the cards were risqué ones. Oh! You never in your sight! I just put my hand down and collected the whole deck and walked out. They never said a word. Most of the men thought it was very funny when I collected the girlie cards. I'm sure they had another set the next day and saw to it that I wasn't making rounds when they were playing.

Once the patients complained to one of the doctors about my picking up their girlie playing cards. The doctor's response was, "I only wish we had more Sister Zitas around." They never told on me again. Oh, they did have one other thing. They used to have little girlie magazines. They had them underneath the pillows and the sheets. But I didn't go around pulling them out.

One time some women came to see this poor man. That night he was as drunk as he could be. We couldn't manage him. He was a big man and he had a splint on and was in traction. Most of the men had skeletal injuries of their backs, legs, or hips. When a man got wild with traction it was pretty bad business. You had to have a man nurse hold him down in bed. So we had to get special male nurses. Those nurses were never plentiful, but we had some, thank goodness. This man especially had to have a male nurse because he was so strong. I felt like a heel having to call the doctor up and tell him I couldn't manage this man at all.

The next day the man felt terrible and was humiliated. I could understand and wasn't mean to him. I was forgiving. But they made him pay for the special nurses. They took it out of his compensation check. I was so

provoked with those women I could have brained them. I wouldn't care if the men had a little drink. But not enough to get completely drunk.

I remember a group of eight men coming in to the hospital at once. It was a trial and tribulation to see that they were all cared for because in those days we didn't have these big emergency rooms. It could very well have been the day the net broke. They were telling me about this net. They explained it to me and told me where it was hung.[2]

Some of the men were so sick at first that they had to have their backs elevated. But the beds didn't crank in those days. You had to do it with pillows. You had to use maybe sixteen or twenty pillows to get them so they'd be high enough.

We used Thomas splints for broken legs. They were terrible things. I don't think they use them anymore. A Thomas splint was a big ring that fit up around the man's hip. It came up on the bed and then it was suspended. It had two heavy wires that went down the ring. The wires gradually got nearer together until they joined at the bottom. They would put this ring up around the man's hip and then put dressings like moleskin along his leg. There were certain padded foot things down by the man's ankle. They would put a rope through the splint. The rope went on a pulley. Then you had weights hanging down off the bed. The splint had to be suspended from a frame above the bed to keep the leg raised. You had to either take on or put off weights according to the instructions of the physician. Think of the poor man with one of those things on.[3]

In the 1930s, you never thought of your nursing duties as being something that would be written up in history. It never occurred to you. But the bridge itself did have a lot of meaning to me because I lived in Northern California. It was marvelous to think that I could get on the bridge and get home to Santa Rosa. In those days the sisters weren't permitted to go out like we do now, so I didn't see the bridge for a while. I saw pictures of it and I heard a lot about it from the men, but it was some little time before I got to see it. Oh, I just think it's a beautiful bridge. It's exquisite from both sides of the bay.

PATRICIA DEWEESE

I was born at St. Mary's Hospital in San Francisco. My mother brought me to San Francisco to be born, but I was raised in Watsonville, Califor-

nia. Nancy O'Brien, a cousin of mine who was a nurse from St. Mary's, always said to me, "You want to be a nurse." And I always wanted to be one. My dad died when I was six years old. My Irish mother said to me, "You'll never leave the ranch." But I did leave it when I was accepted into nurse training at St. Mary's in 1936. Your heart and throat are all tied up until you get that letter, you know?

Nursing care then was bathing the patients, seeing that they had drinking water, and taking care of their casts. You also accompanied the doctors. When the doctor walked in, you stood up, gave him a patient's chart, and walked to the patient's room with him.

The doctors were nice to the injured workers who constructed that bridge and were very understanding, but no one really realizes what those men went through. In those days, we only had two or three different kinds of medications. We had morphine, Panafon, and sleeping tablets. There wasn't much else, but the men seemed to get along on not too much medication, although they would be sick to their stomachs and suffering from the shock of having fallen, been injured, and been brought into a hospital. I don't remember that we ever had an infection, though. And all we had was mercurochrome, methylate, and soap and water.

The men also didn't have the convenience of having the lovely beds like they have now. If they were in a cast, and there were lots of them in body casts, they were in a cast bed. That meant they just laid out flat. There was no way of getting them up and walking them around. We didn't have the type of care that you have now where you recuperate quickly. They would be allowed to be up and to walk around after a period of time, but there was no such thing as a day in the hospital if you were injured in 1936. They didn't come in for a week or a few days. They were always there for a month or longer.

Yet those injured workers were very patient, wonderful men. Some of 'em were so sick, but they never complained. One man was there for a year. There was so much fuss about the bridge at that time, it's just a shame that there wasn't more done about the men that constructed it. They were the ones that did it or we wouldn't have the bridge. I cared for the hurt ones before there was a net under the bridge, when they would drop and be injured. When they put the net in, we didn't have quite as many injuries. We still had injuries, but some men would fall into the net instead of getting hurt.

Those injured young fellows who were our patients were also very nice men. They protected the nurses from the sisters. They made sure there wouldn't be dust around when the sisters came in. That way we wouldn't get scolded or punished. Dusting was most important in the hospital in those days.

Sometimes the men would say, "Miss Boen, wear your cape tomorrow because my wife is coming." My name then was Madeline Patricia Boen. So we'd wear our capes. Their families would bring along bread, a long thing of salami, and a bottle of red wine. We'd put it underneath our capes and go back to our rooms across the street at ten o'clock when lights were out and the sisters could no longer see into our room. We'd take our spreads off our beds, put them up on the windows, and have a feast. The families brought food to us frequently, like twice a week. And they never stopped bringing food to us. That was the highlight in our life. I guess we looked emaciated.

They didn't have television in the 1930s. That's why the men would play cards to entertain themselves. They would have a radio, though. I remember taking my radio over to one man that didn't bring a radio in. You know, when you are caring for someone, you really don't realize the historic importance of it. In those days we just did our job.

My roommate and I went out in our white shoes on May 27, 1937, the first day that the bridge opened and so many people walked it. We walked right down the middle of the bridge before the cars came across. There were no cars or anything. It was such fun. I can remember my hair was blowing, and it was a lovely day. We wore our white shoes, a gray skirt, a sweater, and a jacket. We took a picture at the beginning of the bridge down by the Palace of Fine Arts and another around the turn where you would go onto the bridge. The sisters had given us five cents to get over there. They always gave you five cents for the streetcar and five cents to be sure to get home.

The day that they closed the bridge for people to walk on it in 1987 was not on the exact birthday of the bridge, which was May 27. On the actual birthday of the bridge, I put on my white shoes and wore my gray skirt, blue sweater, and jacket, had my picture taken that day, and walked the bridge again. People thought that it was so funny that I would be wearing the same skirt fifty years later. I've walked the bridge several times. Of course, we were much younger in 1937. This time I huffed and puffed a little bit, but I love to walk.

Sister Mary Zita Felciano (*left*) and Patricia DeWeese at their 1987 interview for the Labor Archives and Research Center's Golden Gate Bridge Fiftieth Anniversary Celebration. Photo by Harvey Schwartz. Courtesy of Labor Archives and Research Center, San Francisco State University.

That bridge is a wonderful thing. You can go back east and there's no thrill about walking on any of the bridges back there. No matter where you go, it's not as much of a thrill as there is walking on this bridge and looking down when there is a ship coming through underneath. It is a beautiful bridge and from my home now, which is in Berkeley, I can look directly west, right into the middle of it.

10

Walter Vestnys and Joyce "Big J" Harris

MAINTENANCE IRONWORKERS

Short of them building a new Golden Gate, they will always be fixing that one. I went out there to help set up some stuff. They were gonna do some rebracing. I was privileged to go all the way to the top and stand there. I was just amazed at the structure. . . . I thought about my brothers before me who put this thing together. It's a structure that people know all over the world.

JOYCE "BIG J" HARRIS

Born in San Francisco in 1928, Walter Vestnys went to sea toward the end of World War II, when he was sixteen, and sailed for seven years. In 1953 he became an apprentice ironworker. During 1965–66 Vestnys performed maintenance on the Golden Gate Bridge, where he replaced many of the structure's original rivets from the 1930s with more modern fasteners. After leaving the bridge, Vestnys became coordinator for the ironworkers' union apprenticeship program for Northern California. He held this job in San Francisco for many years. I interviewed him in Saratoga, California, on April 4, 1987, and in San Francisco two days later.

Walter Vestnys's father, Bert Vestnys, adds brief but valuable comments to his son's testimony. Born in Seattle, Washington, in 1906, Bert Vestnys spent most of his working life in the San Francisco Bay Area. He labored

as a truck driver hauling cement to the Golden Gate Bridge construction site in San Francisco when building began there. A few years later, in 1936, he delivered machinery and cable materials to the bridge as well. Vestnys retired as a truck driver in 1968. I interviewed him in Saratoga, California, on April 4, 1987.

Joyce "Big J" Harris was born in Fresno, California, in 1957 and raised in Oakland. She is a veteran of the Job Corps and the U.S. Army. Harris labored as a shipyard worker in San Francisco before she became an ironworker. As an African American woman, she overcame numerous challenges in the construction trades. Two generations younger than the workers who built the Golden Gate Bridge, she worked briefly doing maintenance on the bridge in the late 1990s or early 2000s. A few years later, Harris took a job with the California Building and Construction Trades Council, promoting apprenticeship programs to young people. Still later, she became a job developer. Since 2010 she has gone by her maiden name, Joyce Guy. I interviewed her in Alameda, California, on February 8, 2008.

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WALTER VESTNYS

When I got out of the service in 1953 I became a lineman in San Francisco for the Pacific Gas and Electric Company. We used to go to the same bar in town as the ironworkers. This was a Norwegian bar at Nineteenth and Folsom Streets called Old Homesteaders. That's where I found out that an apprentice ironworker made more money than I did as a PG&E lineman. PG&E didn't pay enough, had a terrible accident rate, and didn't cover their people who got injured. So after six months at PG&E I transferred over to the ironworkers.

I'd worked in the woods and I was seven years going to sea. I started sailing with the Sailors' Union of the Pacific in 1944 during World War II. I sailed until 1950, when I got drafted for the Korean War. In the service I was in the Signal Corps. By 1953 I had a lot of rigging experience. I went down to G. W. Thomas Drayage and Rigging Company in San Francisco, and they sent me to the ironworkers' union to get a membership. A Scandinavian guy who was the president of Local 377 at the time suggested that I'd be better off coming into the union as an apprentice ironworker

instead of as a journeyman. He was certainly right. I learned my trade through serving my apprenticeship. Now I've been in the ironworkers for thirty-five years [as of 1987].

I was born in 1928 at San Francisco. I started to work when I was twelve years old and out of school. In the summer of 1941 I went into the sawmills and joined the Lumber and Sawmill Workers Union. We were making eighty-seven cents an hour. Once I got a taste of that man's wages, I didn't want to go back to school. So I just kept working. I've belonged to unions ever since. I grew up around union people, and I guess my father, Bert Vestnys, probably had a lot to do with it.

BERT VESTNYS

In 1928 I transferred from chauffeurs' Local 265 into Local 85 of the Teamsters union.[1] This was in San Francisco where I'd driven a cab for about four years. I've been in Local 85 ever since, except for some years around World War II when I worked in Seattle. I was born in 1906 and retired in 1968, but I still have a membership in Local 85. During the big 1934 maritime strike, I had a patrol on the San Francisco waterfront. We rode up and down on the front to see if any of our members got in trouble. I was really close to the Battle of Rincon Hill on Bloody Thursday in '34 when the longshoremen and the cops got into a fight. I also saw the cops chasing workers away from the docks.

My father was born at Rock Diamond, California, in 1873. That used to be a coal mine in Contra Costa County. His father was a Norwegian. My father was a plasterer. They called 'em masons then. He done that for about forty-five years. He belonged to several different locals of his union. There was one in San Francisco and one in San Jose. But I can't recall the name of the union now.

When they were building the Golden Gate Bridge, I got dispatched to different employers who had contracts for hauling bridge material. There was no highway out like there is now. We used to go through the Presidio of San Francisco to the delivering spot at Fort Point. I hauled some cement there when they first started to build, but I worked on the bridge mostly for W. R. Ballinger and Son for about six months in 1936 hauling machinery to Fort Point as well as some of the cable that was used for the cable splicing.

There were a lot of skeptics back then that didn't think the bridge would ever be built. They thought it was a big pipe dream. The few Local 85 drivers I talked to occasionally about the bridge just considered it another job. They didn't see anything special about it. Most of those guys didn't even think it would ever be finished.

WALTER VESTNYS

In early 1965, the Local 377 business agent asked another ironworker, Benny Muvillo, and myself to go to work on the Golden Gate Bridge and change the gratings. They already had a regular crew of five ironworkers out there working all the time. We went out as two extra guys. While we were there, they decided to start knocking the old rivets out to see if it was a good idea to replace 'em. I stayed for more than a year and a half doing that. I quit that job in December 1966 to come on to the apprenticeship coordinator's job I've had up to now.

To replace the old rivets, we busted out the old ones and replaced 'em with high-tensile bolts.[2] They used rivet busters, hell dogs they called 'em. That's a pneumatic tool that busted the head off the old rivet. To bust the head off, you sheared it off at a right angle with the buster, which had tremendous power through its air drive. Then you used a B & O to drive the rivet back out of its hole.[3] Next you stuffed the hole with a high-tensile bolt of the proper length and torqued it up to so many pounds per square inch as required by the engineers. We'd test the bolts with a torque wrench to see that they were tight. They were far stronger than a rivet.

But it was a lousy job. You were working in awkward positions. Either that or you were inside the iron, and as soon as you made that machine noise you'd go deaf. You couldn't hear. That's why everybody shouted. Over the years you'd get where you couldn't hear at all.

Besides that, most of the time the weather is terrible on the bridge. It can change in just a couple of minutes, so you had to dress for the worst. The first day I worked out on the bridge I froze 'cause I didn't have thermal underwear on. It was just terrible. That night I stopped at the Sears and Roebuck store and bought my first pair of thermal underwear. Everyone wore thermal underwear every day, tops and bottoms, a heavy pair of pants like Frisco jeans, a good heavy work shirt like a hickory shirt or a blue Levi's one, and an insulated or even a rain-repellent jacket.[4]

When you got to work in the morning, you'd put on your overalls. The three layers kept you pretty warm. I wore two pairs of socks, very much like in the army. One would be like a pair of dress socks. The outer pair would be made of heavy wool. My boots would be a little big to accommodate the two pairs of socks. I wore boots with some kind of fabric sole. They didn't have waffle-type soles yet. You wore anything other than leather soles.

The hard hats the bridge required were called boiled glass. This was a plastic hat with a liner inside. There was a strap on the hat that would go under your chin so when the wind was blowing you didn't lose your hat. White hats was for the pusher [supervisor] and blue hats was for the guys in the work gang.

The ironworkers on the Golden Gate Bridge performed all kinds of different tasks. They did new construction. They hung all the rigging for the painters, which got to be very intricate. It's a big bridge with big areas, and we had fifty or sixty painters out there. It required a lot of rigging for 'em to get around. You did whatever else was necessary. We replaced the fog horns a couple of times 'cause they were blasting over to the mayor's house and he got mad.[5] Then we walked the cables once a month to check them for abrasions, erosion, or breakage. We also tested the airplane lights.

The ironworkers even went after all the jumpers, the people that were suicidal. People jumped off there all the time. We'd fish out all the bodies and turn 'em over to the Coast Guard so they could haul 'em to the coroner. They'd blow the horn in the ironworkers' shop and you'd know there was a jumper. You'd go out to wherever you'd find 'em. We chased one woman around a better part of an afternoon to try to find her. She was pretty fleet-footed. We never caught her, and we never found a body. I don't know what happened to her.[6]

We put up television cameras when I was out there, too, so the policemen there in the shack could see everything going on in the roadway, like wrecks and jumpers and stuff. After the years I was out there, the ironworkers took on jobs for the ferry system. They do all the dockwork for the ferries. They also fix the bus park for the Golden Gate Bridge, Highway, and Transportation District.[7]

From growing up in San Francisco, I imagine that building the Golden Gate Bridge was a means of support for a good percentage of the town.

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We was right in the middle of the Depression, and folks were starving. The bridge was a godsend that paid the rent and paid to raise a lot of families. The two years that I worked there was a learning process that was extremely educational. It was so good that when I got this job as apprenticeship coordinator twenty years ago, the first thing I did was talk to the bridge manager and make a deal that we'd have two rotating apprentices working there all the time. We rotate 'em every six months, so during one year we'll have four apprentices out there. Many of the apprentices that started there went back again as journeymen and are now steady ironworkers for the Bridge District. They all profited from their bridge experience.[8]

JOYCE "BIG J" HARRIS

My dad was a laborer. I was his oldest child. They always teased me that my father wanted his oldest child to be a boy. So, his oldest child being a girl, I learned how to be tough and aggressive. We lived in Oakland, where I grew up, although I was born in 1957 at Fresno, California. I remember me and my dad going to build a fence for somebody. I loved doing that. But back in the day, people assumed that if you were a girl you were going to be a nurse or a schoolteacher.

Mom really had a hard time with how attentive I was to working around my father as opposed to working around her. She did everything she could to change me. She put me in typing classes in high school. But then I actually got kicked out of typing class!

For that my mother put me on punishment. They put me in an automotive class. But I loved it. I'd come home from school and me and my dad would fix the car. We'd change the carburetor and do everything else. It was psychologically hard because I was torn between what I really liked and my mom. She even took me to a psychologist. Now, though, she realizes that's just who I was and that was my gift.

When I was sixteen I went into the Job Corps. A teacher at Tongue Point started a welding class.[9] That's when I really became fascinated with construction. We built things and I got to go to Seattle and work. I loved every

Maintenance workers on the Golden Gate Bridge, 1958. Walter Vestnys performed maintenance jobs on the bridge in the mid-1960s. Courtesy of San Francisco History Center, San Francisco Public Library.

minute of it. I even graduated from high school while in the Job Corps. When I came out of the Job Corps in 1976, I went back to my parents' household. Now I was an adult, but I was stuck in a house with a mom who still said, "No." The reality check there, too, was that as far as construction was concerned, there was nowhere for a female to go. People weren't looking at me as employable, even though I now had welding certifications.

I ended up going into the military. I can play sports really good and made an all-Army basketball, volleyball, and softball team. So I got to see other parts of the world. But I kept being drawn to construction. In 1980 I decided not to reenlist and came back to the Bay Area.

By going through a program called Women in Apprenticeship I got hired in the San Francisco shipyards. I did anything from ventilation to reflooring work. It was heaven. I was working with my hands. The guys I worked with were nice, but the shipyard industry was dying and they knew I was there temporarily. Besides, I was never really part of the clique. I was in the Sheet Metal Workers International Association, which had an apprenticeship program, but no one told me how to get in. When the ships no longer came to the Bay Area, I didn't have connections to know how to get work on the local naval base or any other avenue to keep me busy.

For a short period I got work with PG&E. I dug ditches, whatever it took. The problem was that again I come in on the back end. Everybody was downsizing and PG&E cut a division. I had no seniority and I was out of the loop.

Next I decided to go to the College of Alameda. By now I was a single mom with no job. I'd met a guy and got married, but soon he was gone. I finally got an AA degree in social science. It took me forever to get it. What could I do with it? Nothing. I still wanted to work construction. There were women in apprenticeships now, but information about this was not out there. People were not talking about it. We still had that Stone Age image where if a woman worked construction, she must be some kind of a man. If you weren't a good old boy and your uncle or your dad's not telling you, ain't nobody talking.

I don't know how I figured out how, but finally I got a company to sponsor me and I applied to be an ironworker. I brought my paperwork to Walt Vestnys, the Local 377 apprenticeship coordinator in San Fran-

cisco. He said I couldn't have the job I'd hustled myself since he had apprentices out of work. I got on BART and I was crying. I met a guy there who said he'd take me to his union hall in Oakland. I don't know why I went, but I did. He introduced me to Dick Zampa at Local 378. Zampa drove me to meet his apprenticeship coordinator. The next day I went to work as a decker.

I had no idea what ironworkers did. I only knew they welded. Nobody told me I was going to have to walk a beam in the air. That first day, this guy Jim McDaniels says to me, "Come with me. We're going up on the building and screw." Everybody in the room couldn't believe it. But I said, "Sure, I don't mind if you think you can handle it." From then on there was great rapport. That day I used a screw gun to screw down an existing deck. They were willing to teach me right up until the day they told me to walk out on that iron. I thought, *You gotta be kidding me, right?* But then they even taught me how to do that. It wasn't a bad situation at all.

Some guys were resistant. Several had never worked side by side with an Afro-American woman. One Hispanic guy decided to urinate in my lunch box. That was one of the most humiliating things you could do to a person. I thought of giving up being an ironworker. But in the morning I opened up the door to my son's room and realized, *It ain't about me. I have a kid to take care of.*[10] I cleaned and bleached the lunch pail and went back to work. That day the union business agent, Jerry Balmer, came out to the job site. He said, "Don't tolerate that." He let me know that that's unacceptable to him and to the union.

A guy named Keith also told me, "Joyce, you never know when you're going to be that Hispanic guy's boss." I thought, *I'm a black woman. There's no way in this trade they'll ever let me be anybody's boss.* But over the years I established positive rapport with people. They found I could work just as hard as I could talk. I'm six feet tall, and after a while they didn't call me Joyce, they called me Big J. When they said Big J, they were not thinking of a girl. Over time I got to run quite a few jobs. Guess who, about six years later, got me as his boss? He walked up there and said, "Who's the boss?" He only knew it was this Big J. When he found out it was me, I says, "You're only going to stay here one day. Don't ever try to humiliate anybody again like you did me." I just used my power at work that one day. Then I let that issue go.

When I was still an apprentice I fell twenty-seven feet through a building. I didn't get hurt, but I got out of the trade. But about 1990 I went back to complete my apprenticeship. When I see Dick Zampa, he gives me a big old hug. He realized I'd been in apprenticeship before. He says, "We're going to give you credit for the classes you took." I thought, *How great can that be?*

We still had good old boys in our apprenticeship class. One guy, Dan, had a huge swastika tattoo on his arm. For two years every other word was the *N* word. Finally I said, "Dan, I've had it with you." He walked in front of my desk and said, "You n——s need to row that boat back." So I came across the desk on him. After that he changed his attitude and me and Dan became friends.

In all, I've still had way more great experiences than bad ones. Once I was working with a grinder and a guy from the pipe fitters started yelling at me about grinding sparks. Instead of tapping my shoulder first, he snatched the cord out, which made the grinder jump. If I'd been holding this huge grinder with one hand, there's no telling what could have happened. I looked up and saw this white mob of ironworkers coming. I'm thinking, *Oh, my God.* But they surround this dude and are getting ready to beat him. I'll never forget what Donnie Chilton told me. He said, "Joyce, you were inducted into a sorority. You're family. We can pick on you, but can't nobody else."

I don't work iron no more right now. The State Building and Construction Trades Council hired me to go all over Northern California giving out information about construction apprenticeship programs. So I give presentations at prisons, churches, high schools, whatever. I have passion for recruiting people into the trades 'cause it changes lives economically and culturally.[11] But I miss the iron, because there's no finished product now in what I do.

While I was still working iron, the San Mateo Bridge was the biggest project I was ever foreman on.[12] I was out there fifteen or sixteen months. I loved bridge work because I was working on history. When I retrofitted the Bay Bridge, I was dealing with that.

I got to work on the Golden Gate Bridge for a few days, too. Short of them building a new Golden Gate, they will always be fixing that one. I went out there to help set up some stuff. They were gonna do some rebracing. I was privileged to go all the way to the top and stand there. I

Joyce Guy (earlier known as Joyce Harris) at work in the field, Oakland, California, 2014. Breaking into the male-dominated ironworker world was challenging for an African American woman, but Guy persevered to carry on the work of the Golden Gate Bridge builders who preceded her. Photo by Victoria Hamlin, board member of Tradeswomen, Inc. Courtesy of Joyce Guy and Victoria Hamlin.

was just amazed at the structure. The average person doesn't get to go and see how every brace is there for a reason. I thought about my brothers before me who put this thing together. It's a structure that people know all over the world, and that day we got to get some steel ready to put in there. A lot of people don't get injected into history that way, but we will always be a part of it. It's not always about the money.

EPILOGUE

An army cannot consist of officers alone, however talented; and a great bridge—while it owes so much to its designers and construction supervisors—owes an equal, if not superior, debt of gratitude to the workers who built it.

KEVIN STARR

Kevin Starr is a native San Franciscan and the author of an acclaimed eight-volume series called *Americans and the California Dream.* In 2010 he published a brief history of the Golden Gate Bridge (*Golden Gate: The Life and Times of America's Greatest Bridge*) that was uniquely enriched by his admiration for the iconic structure and for those who constructed it. His comment provides a fitting epilogue to this book.

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Writers of history books generally get a great deal of help from colleagues, friends, and relatives along the way to publication. I am no exception. I wish to acknowledge the aid I have been given over time by many people, although a sentence or two cannot begin to repay the debts incurred.

First, I deeply appreciate the invaluable long-term support I have received from Lynn A. Bonfield, founding director of the Labor Archives and Research Center at San Francisco State University, who commissioned me to conduct the 1987 interviews of bridge workers that form the core of this book. In later years, I have benefited tremendously from the backing of Bonfield's successors at LARC, initially Susan Sherwood and later Catherine Powell. Recently, Powell provided much understanding and patience while I worked to complete this project. I must also mention the grant to LARC from the California Council for the Humanities, won by Bonfield in the mid-1980s, that funded LARC's 1987 Golden Gate Bridge Project and most of the oral histories recounted here.

Three retired construction workers with long experience in their trades and as union officers read chapter drafts when this book was in manuscript form. I asked them to vet the technical passages dealing with construction and especially with bridge building. All three responded with insightful comments and suggestions. I have tried to make suitable adjustments wherever they pointed out errors or unclear descriptions; any remaining mistakes or oversights are undoubtedly due to my own shortcomings. For their aid I am deeply grateful.

Dick Zampa, Al Zampa's son, read all of the chapter drafts. He retired in 2006 as national first vice-president of the International Association

of Bridge, Structural, Ornamental, and Reinforcing Iron Workers. He served, too, as president of the Iron Workers California District Council and secretary-treasurer of the California Building and Construction Trades Council. As a young man in the mid-1950s, he worked with his father, Al, and his brother, Gene, on the building of the second Carquinez Bridge between Crockett and Vallejo, California. Early in his career he was also business manager, secretary-treasurer, and president of Ironworkers Local 378, based in Oakland, California.

Bob Mettacola, who worked as a union carpenter for thirty-six years, reviewed all of the chapter drafts as well. He spent most of his union career, spanning 1977 to 2013, as a member of San Francisco Local 22 of the United Brotherhood of Carpenters and Joiners of America. Mettacola has been a delegate to the UBCJA regional council, to a national convention, and to the San Francisco Building and Construction Trades Council. He has served as Local 22 recording secretary for the past decade.

Derek Green, who retired after many years as business manager for San Francisco Local 6 of the International Brotherhood of Electrical Workers, carefully read the chapter draft containing the recollections of Golden Gate Bridge electrician Fred Brusati. Green is secretary-treasurer of the San Francisco–based Archie Green Fund for Labor Culture and History, named for his father, the renowned labor folklorist.

I owe a special debt to veteran ironworker, author, and photographer John V. Robinson, who has written extensively about Al Zampa. He graciously shared the research field he has long cultivated so I could utilize Isabelle Maynard's 1986 interview with Zampa, without which this book would not feel complete. Robinson also obliged when I needed a technically sharp image of Al Zampa at work—valuable assistance in the demanding task of collecting suitable historical photographs for book publication.

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I have benefited tremendously from the ongoing love of my family. My son, David Schwartz, who brings a serious historian's perspective to every discussion, has been an inspiration. To my wife, Marilyn M. Schwartz, who retired at the end of 2011 as managing editor at the University of California Press, I owe a very special debt for many things, including her great forbearance and her extraordinary editorial aid while I was working on this manuscript.

NOTES

INTRODUCTION

1 Studs Terkel, opening day comments, StoryCorps facility, Grand Central Terminal, New York, October 23, 2003. For similar sentiments in a pioneering book about bridge workers, see Gary Talese, *The Bridge: The Building of the Verrazano-Narrows Bridge* (New York: Harper & Row, 1964).

2 The writings of Charles F. Adams, John van der Zee, and Stephen Cassady come immediately to mind. Adams and van der Zee describe notable workers, and Cassady quotes some to good effect. Cassady's book includes numerous photos of the construction process, as does a volume issued a few years earlier by Richard Dillon, Donald DeNevi, and Thomas Moulin. See Charles F. Adams, *Heroes of the Golden Gate* (Palo Alto, CA: Pacific Books, 1987); John van der Zee, *The Gate: The True Story of the Design and Construction of the Golden Gate Bridge* (New York: Simon and Schuster, 1986); Stephen Cassady, *Spanning the Gate: The Golden Gate Bridge,* rev. ed. (Santa Rosa, CA: Squarebooks, 1986); Richard Dillon, Donald DeNevi, and Thomas Moulin, *High Steel: Building the Bridges across San Francisco Bay* (Berkeley, CA: Celestial Arts, 1979). Tom Horton, *Superspan: The Golden Gate Bridge* (San Francisco: Chronicle Books, 1983) also contains brief quotes from workers.

3 Adams does describe individual workers' backgrounds at some length. In his final chapter he also summarizes their later careers. See Adams, *Heroes,* 339–351.

4 Richard B. Morris, ed., *Encyclopedia of American History* (New York: Harper, 1953), 446–450.

5 The Golden Gate Bridge job was 100 percent union over most of its construction, whereas the unionization record on the concurrent Bay Bridge project was more spotty. See Cassady, *Spanning the Gate,* 40; John V. Robinson, *Spanning the Strait: Building the Alfred Zampa Memorial Bridge* (Crockett, CA: Carquinez Press, 2004), 19–20; van der Zee, *The Gate,* 231.

6 Lynn A. Bonfield and Karen R. Lewis, *Building the Golden Gate Bridge: An Exhibition at the Labor Archives and Research Center of San Francisco State University and the Sutro Library Branch of the California State Library, May 17–August 31, 1987* (San Francisco: Labor Archives and Research Center, San Francisco State University, 1987).

7 However, Adams, *Heroes,* 103–113, 319–324, profiles engineer Joseph Strauss's

secretary and a model who reigned as Fiesta Queen for the bridge's opening ceremonies.

8 Lynn Bonfield identified the two nurses as potential interview subjects in 1987.

9 Adams, *Heroes,* 182–186, discusses one male African American worker, William D. Smith Jr., a truck driver who made deliveries to the bridge during its construction.

10 As Kevin Starr observed about the Golden Gate Bridge during a 2009 radio interview, "It dawned on everybody that the minute you finish building it, you have to continue to build it for the next fifty to sixty years. We know that about complex works of engineering. It's the same thing [as] in your home." Kevin Starr, interview by Scott Shafer, *Forum,* KQED radio, San Francisco, July 1, 2009.

11 Sherna Berger Gluck, *Rosie the Riveter Revisited: Women, the War, and Social Change* (New York: Meridian, 1988), 227.

12 Donald A. Ritchie, *Doing Oral History* (New York: Twayne Publishers, 1995), 102. In 2010, in a book cowritten with Molly Beer, the prominent oral historian David Dunaway commented, "The procedure of oral history is well documented, notably in Donald Ritchie's *Doing Oral History*." See David King Dunaway and Molly Beer, *Singing Out: An Oral History of America's Folk Music Revivals* (New York: Oxford University Press, 2010), 200. Another helpful classic focusing on methodology is Valerie Yow, *Recording Oral History: A Guide for the Humanities and Social Sciences,* 2nd ed. (Walnut Creek, CA: Altamira Press, 2005). See also Robert Perks and Alistair Thomson, eds., *The Oral History Reader,* 2nd ed. (London: Routledge, 2006), a collection of seminal articles on the theory, method, and practice of oral history, including many written from an international perspective. Over the years, a suprising number of additional books have been published that offer especially outstanding insights into the utility and craftsmanship of oral history. Paul Thompson's *The Voice of the Past: Oral History* (Oxford: Oxford University Press, 1978) and Alessandro Portelli's *The Death of Luigi Transtulli and Other Stories: Form and Meaning in Oral History* (Albany: State University of New York Press, 1991), *The Order Has Been Carried Out: Memory and Meaning of a Nazi Masssacre in Rome* (New York: Palgrave Macmillan, 2003), and *They Say in Harlan County: An Oral History* (New York: Oxford University Press, 2011) are prime examples.

13 A cantilever bridge consists of two strong structures built out horizontally toward each other and then joined in the center. Many large twentieth-century cantilever bridges have cantilevers made of structural steel trusses. In a suspension bridge, the roadway is supported by vertical suspenders attached to sturdy cables.

14 The contractors engaged to build the Golden Gate Bridge included Barrett and Hilp, the two anchorages and the approach span piers; Pacific Bridge Company, sea-based San Francisco pier and fender and land-based Marin County pier; J. H. Pomeroy Company and Raymond Concrete Pile Company, San Francisco and Marin County approaches; Eaton and Smith Construction Company, Presidio of San Francisco approach road; Alta Electric and Mechanical Company, electrical work; McClintic-Marshall Corporation, a Bethlehem Steel Corporation subsidiary, building steel superstructure; Bethlehem Steel, fabricated steel, a little produced locally in South San Francisco, most built and shipped from Bethlehem's heavy steel manufacturing facilities in the eastern United States; John A. Roebling's Sons Company of New Jersey, main cable spinning and vertical suspension cable system. Mary C. Currie, *Highlights, Facts, and Figures of the Golden Gate Bridge, Highway, and Transportation District* (San Francisco: Golden Gate Bridge, Highway, and Transportation District, 2009), 16; Kevin Starr, *Golden Gate: The Life and*

Times of America's Greatest Bridge (New York: Bloomsbury Press, 2010), 115–118; Adams, *Heroes,* 151.

15 The Ellis story was broached and explored in depth by van der Zee in *The Gate.* See also Cassady, *Spanning the Gate,* 134, and John van der Zee, "Bridging the Gate," *Image* magazine, *San Francisco Examiner*, February 8, 1987, p. 24.

16 A cofferdam is a container that is sunk in water and pumped dry to allow construction on the bottom of the body of water in question. See Adams, *Heroes,* 163; Cassady, *Spanning the Gate,* 50.

17 The caisson designed to serve as a footing for the bridge's south tower was a massive, custom-built, watertight steel structure. Cassady, *Spanning the Gate,* 51–54, 60.

18 This brief overview of the bridge's political background, planning, and construction is based on several of the books listed in the Further Reading section of this volume. Among these, Cassady, *Spanning the Gate;* Adams, *Heroes;* Dillon, DeNevi, and Moulin, *High Steel;* van der Zee, *The Gate;* Starr, *Golden Gate;* Donald MacDonald and Ira Nadel, *Golden Gate Bridge: History and Design of an Icon* (San Francisco: Chronicle Books, 2008); and Currie, *Highlights, Facts, and Figures* were especially helpful.

1. FRED DIVITA: FIELD ENGINEER

1 The Golden Gate Bridge and the San Francisco–Oakland Bay Bridge were both under construction when Divita was attending "Cal," as the University of California, Berkeley, has been nicknamed regionally for decades.

2 The Golden Gate Bridge roadway is suspended from two huge towers. Divita is talking about the north, or Marin County, tower, erected between August 1933 and May 1934. Workers completed the south, or San Francisco, tower between January and June 1935. Cassady, *Spanning the Gate,* 70, 74, 79; Dillon, DeNevi, and Moulin, *High Steel,* 100–101.

3 Fairfax is in Marin County, twenty-five miles northwest of San Francisco across the Golden Gate strait. The Golden Gate Bridge was built to connect Marin and other northern counties to the city.

4 Between 1901 and 1910, more than two million Italians relocated to the United States as part of the "new immigration" from eastern and southern Europe. Most came to escape economic or other difficulties at home. Many ended up working in American industry. Morris, *Encyclopedia of American History,* 447–448; U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D.C.: U.S. Government Printing Office, 1960), 56. For classic works on the nationwide implications of immigration, see Oscar Handlin, *The Uprooted: The Epic Story of the Great Migrations That Made the American People* (Boston: Little, Brown, 1951; 2nd ed., Philadelphia: University of Pennsylvania Press, 2002); David Brody, *Steelworkers in America: The Nonunion Era* (Cambridge, MA: Harvard University Press, 1960; rev. ed., Urbana: University of Illinois Press, 1998). A helpful, wide-ranging overview of immigration throughout American history is provided in Roger Daniels, *Coming to America: A History of Immigration and Ethnicity in American Life,* 2nd ed. (New York: HarperCollins, 2002). See also Alan M. Kraut and David G. Gerber, eds., *Ethnic Historians and the Mainstream: Shaping America's Story* (New Brunswick, NJ: Rutgers University Press, 2013).

5 On Italian immigration to San Francisco, see William Issel and Robert W. Cherny, *San Francisco, 1865–1932: Politics, Power, and Urban Development* (Berkeley: University of California Press, 1986), 73–74; Robert W. Cherny and William Issel, *San Francisco: Presidio, Port and Pacific Metropolis* (San Francisco: Boyd and Fraser, 1981), 42. For the long-term influence of immigration and the Catholic Church on San Francisco politics, see William Issel, *Church and State in the City: Catholics and Politics in Twentieth-Century San Francisco* (Philadelphia: Temple University Press, 2013).

6 Fairfax was a small, rural community in the 1920s. In addition to there being no bridge connecting Marin to San Francisco in the south, the nearby Richmond–San Rafael Bridge from Marin to the East Bay did not exist until the mid-1950s.

7 Simi Winery was headquartered north of Fairfax in Healdsburg, California, for many years. It can trace its origins back to the late nineteenth century. During the 1970s and 1980s it became a major, high-profile California wine producer.

8 Bethlehem Steel, based in Pennsylvania, served as contractor for the fabrication of the steel for the bridge's towers and superstructure. Bethlehem Steel shipped tons of parts to California in railcars while the bridge was under construction. Adams, *Heroes,* 188; Janet Fireman and Shelly Kale, "Bridging the Golden Gate: A Photo Essay," *California History* 89, no. 4 (2012): 28–29; Starr, *Golden Gate,* 117.

9 It was necessary to scrape damaged, rusty paint and repaint after red lead paint inside the Marin (north) tower failed. Adams, *Heroes,* 269.

10 *Stifflegs* refers to the stiffleg derricks that helped equip the north tower traveler. In raising the north tower steel, the traveler sat between shafts. A stiffleg derrick and a ninety-foot boom serviced each shaft. Cassady, *Spanning the Gate,* 68, 72.

11 The construction cells consisted of plates of carbon seven-eighths of an inch thick and even stronger silicon steel. Dillon, DeNevi, and Moulin, *High Steel,* 83–84. These authors note that the towers were composed of 3.5-foot square cells. See also Starr, *Golden Gate,* 121.

12 A diaphragm in steel bridge engineering is a deck designed to mitigate the potentially dangerous impact of lateral motion caused by wind, earthquakes, or other pressures. Such a deck can provide something for a worker to stand on.

13 Made of groups of hollow cells, the towers had two legs, each with ninety-seven cells at the bottom. The number of cells tapered off to twenty-one at the top. Horton, *Superspan,* 83.

14 A Golden Gate Bridge steel rivet had a cylindrical shaft with a rounded head at one end. The opposite, narrow end was called a buck-tail. A heated rivet was quickly fitted into a hole in large steel pieces scheduled for final attachment and the tail "bucked," or jammed with an air jack, so that it flattened out, making the rivet a strong fastener when it cooled. A rivet catcher would secure a hot rivet thrown his way by a rivet heater or, inside tower cells, sent his way by a tube and immediately make it available to a bucker-up. The bucker-up would steady the rivet in place using a steel backing, while the rivet driver secured the piece using an air jack. This method of joining bridge steel was superseded by the employment of high-tensile bolts shortly after World War II.

15 The ten-thousand-ton floating caisson in question was scheduled to be sunk in place as a foundation base, but was damaged during a storm in October 1934. It was towed fifty miles out to sea and sunk. Dillon, Moulin, and DeNevi, *High Steel,* 81–83.

16 Workers built one of the anchorages for the San Francisco–Oakland Bay Bridge on Yerba Buena Island east of San Francisco.

17 The original Bay Bridge consisted of a suspension section on its San Francisco side and a cantilever span anchored on its East Bay side. Dillon, DeNevi, and Moulin, *High Steel,* 15. The East Bay section was replaced by a suspension span in 2013. For background, see "The Bay Bridge at 75—Looking Forward to 2013," *Panorama: Newsletter of the San Francisco Museum and Historical Society* 23, no. 4 (October–December 2011): 4–5.

18 Chief Engineer Strauss's safety net, which ultimately saved nineteen lives, was installed under the truss work as it advanced from the bridge's towers. Dillon, DeNevi, and Moulin, *High Steel,* 125; Adams, *Heroes,* 265–267; Cassady, *Spanning the Gate,* 104–105; Starr, *Golden Gate*, 133–134.

19 A construction rigger specializes in the lifting, moving, and placing of large and heavy loads. Riggers carefully calculate how to proceed and then typically use cranes, pulleys, and jacks to complete their work.

20 "In the Joe" could mean having extra money for coffee during the Depression, when many went without necessities, much less luxuries. The boxing historian Louis M. Isaacs suggested that it could mean making good money like heavyweight champion Joe Louis earned during the 1930s and 1940s. In later years, New Yorkers used the expression to refer to the Joe Louis Arena in Manhattan. Louis M. Isaacs, telephone interview with author, February 3, 2013.

21 In bridge building, there are top and bottom chords, which are the top and bottom horizontal steel members of a truss. See MacDonald and Nadel, *Golden Gate Bridge,* 106.

22 A stringer is a longitudinal beam installed to help support a bridge deck.

23 Tragically, a pin in the traveling crane had pulled loose. The boom of the crane fell into the water, missing the net. Moore's death was the first fatality during the bridge's construction. Traditionally, bridge builders ceased work when a major accident or a death occurred. Adams, *Heroes,* 273, 278; Cassady, *Spanning the Gate,* 107–108; van der Zee, *The Gate*, 267.

24 Turnipseed was a construction foreman on the bridge. He was also Kermit Moore's brother-in-law. Moore was working on Turnipseed's crew when he was killed. Adams, *Heroes,* 278; van der Zee, *The Gate,* 267.

25 Mohawk tribesmen from Quebec started working on bridges in the late nineteenth century. They became legendary as high-steel men while erecting New York City skyscrapers during the 1920s. See Edmund Wilson, *Apologies to the Iroquois, with a Study of the Mohawks in High Steel by Joseph Mitchell* (Syracuse, NY: Syracuse University Press, 1959), 3–38.

26 Corte Madera is about fifteen miles north of San Francisco.

27 The reference is to the highly publicized April 28, 1937, ceremonial driving of a gold rivet to commemorate the completion of the bridge. Adams, *Heroes,* 313–314; Cassady, *Spanning the Gate,* 122–123; van der Zee, *The Gate,* 293.

28 This was the large, rounded head side of the rivet.

29 In construction, falsework is temporary work that is often made of wood. It is generally removed when building has been completed.

30 The full name of the union is the International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers.

31 Originally called the Lake Washington Floating Bridge, this Seattle-area structure was heavily used until 1990, when it sank in a storm.

32 During World War II, the U.S. Army Corps of Engineers built the Alcan Highway connecting the contiguous United States to Alaska via Canada as a military exigency.

33 Shortly after his inauguration in early 1933, President Franklin D. Roosevelt declared a four-day "bank holiday." Dating from the same year, the Works Progress Administration (WPA) provided jobs for millions of unemployed Americans and became one of the long-term mainstays of FDR's New Deal.

2. JOHN NOREN: ELEVATOR MAN

1 Between 1896 and 1921, San Francisco was widely known as "a union town," largely thanks to the power of the city's Building and Construction Trades Council, which controlled jobs through a strict union card check system. San Francisco's construction employers and other business leaders broke this power when they mounted a successful open-shop campaign between 1916 and the early 1920s. Michael Kazin, *Barons of Labor: The San Francisco Building Trades and Union Power in the Progressive Era* (Urbana: University of Illinois Press, 1987), chaps. 2–4, 8–9; Issel and Cherny, *San Francisco, 1865–1932*, chap. 4; Cherny and Issel, *San Francisco,* 33, 47–48; Harvey Schwartz, *Labor's Stronghold: 120 Years of Local 22, United Brotherhood of Carpenters and Joiners of America, in San Francisco, California, 1882–2002* (San Francisco: Local 22, UBCJA, 2002), 16–27; Stanley M. Smith, "History of the San Francisco Building and Construction Trades Council," in San Francisco Building and Construction Trades Council, *Commemorating 100 Years of Excellence in Craftsmanship, 1896–1996* (Oakland, CA: Union Publications, 1996), 6–8.

2 Local 8 can trace its origins in San Francisco back to 1902. Hector E. Rueda, "Excerpts from the Story of the International Union of Elevator Constructors No. 8," in San Francisco Building Trades Council, *Commemorating 100 Years of Excellence,* 62.

3 Thousands of "earthquake carpenters" and other craftsmen came to San Francisco to work during the city's 1906–7 rebuilding boom. Kazin, *Barons of Labor,* 124; Schwartz, *Labor's Stronghold,* 20.

4 The great Pacific Coast maritime strike of 1934 began that May. Ultimately, the National Guard did deploy on the San Francisco waterfront during the strike. David F. Selvin, *A Terrible Anger: The 1934 Waterfront and General Strikes in San Francisco* (Detroit, MI: Wayne State University Press, 1996), 152–153; Charles P. Larrowe, *Harry Bridges: The Rise and Fall of Radical Labor in the U.S.* (New York: Lawrence Hill, 1972), 70–71; Irving Bernstein, *Turbulent Years: A History of the American Worker, 1933–1941* (Boston: Houghton Mifflin, 1970), 279.

5 When Noren met Rickey, the latter was the general manager of the Saint Louis Cardinals. As president and general manager of the Brooklyn Dodgers in 1947, Rickey made baseball and U.S. history by sponsoring Jackie Robinson's successful effort to break the color barrier in Major League Baseball. See Jules Tygiel, *Baseball's Great Experiment: Jackie Robinson and His Legacy* (New York: Oxford University Press, 1983).

6 By the late twentieth century, the Mission District of San Francisco was a heavily Latino neighborhood. In the 1930s it was largely Irish and Italian.

7 Like Fred Divita, Noren was fortunate to get a job on the bridge in the way that he did. Many workers during the Great Depression waited in large groups outside bridge construction sites for days in the hope of landing a job. Adams, *Heroes,* 186.

8 These facilities consisted of open-air buckets with seats affixed. See Fireman and Kale, "Bridging the Golden Gate," 34.

9 The Occupational Safety and Health Act created OSHA in 1970. Nelson Lichtenstein, Susan Strasser, and Roy Rosenzweig, *Who Built America? Working People and the Nation's Economy, Politics, Culture, and Society,* vol. 2: *Since 1877* (New York: Worth Publishers, 2000), 659.

10 The Bank of America was a vibrant, relatively new organization in the mid-1930s. San Franciscan Amadero Pietro Giannini founded it in 1930 when he merged his older Bank of Italy with his newer banking interests. Issel and Cherny, *San Francisco 1865–1932,* 74–75; Cherny and Issel, *San Francisco,* 42–43.

11 Local 8 struck in 1967. The National Elevator Industry, Inc., the elevator employers' association, locked the union out in 1972. Rueda, "Excerpts," 64–67.

3. GLENN MCINTYRE: IRONWORKER

1 *Gandy dancer* is an old expression for a semiskilled railroad worker. In the late nineteenth and early twentieth centuries, most railroaders knew the term. Gandy dancers performed hard physical labor building and maintaining rail tracks. Mechanization eliminated most of their jobs during the late twentieth century.

2 A speeder is a small moving vehicle for traveling quickly along railroad tracks.

3 The Western Clock company's popular "Westclox" Pocket Ben pocket watches were widely sold for many years following their introduction in 1915.

4 Foster's Lunch System was a cafeteria restaurant chain with a number of San Francisco outlets. Foster's, as it was popularly known, was a high-profile institution in that city before the company closed its last San Francisco cafeteria in the early 1970s.

5 "Hustling sheets" meant selling newspapers, in this case for publisher William Randolph Hearst's *San Francisco Examiner.*

6 In the 1930s, Florsheim and Company of Chicago produced and distributed some of America's best-quality men's leather dress shoes.

7 The Embarcadero is a lengthy boulevard that runs for several miles along San Francisco's bayside waterfront. McIntyre would have been looking down two hundred feet in the scene he describes here. Dillon, DeNevi, and Moulin, *High Steel,* 28–29, 37.

8 A dinkey is a small locomotive.

9 A settling tank is a piece of equipment used to separate solids from liquids.

10 The cross-bay section of the Bay Area Rapid Transit system, known as BART, was completed in the late 1960s. BART runs underground where it travels beneath San Francisco Bay.

11 Turnipseed, mentioned in Fred Divita's recollections, was the highly regarded foreman of the crew that built the steel deck on the Marin side of the Golden Gate Bridge in 1936. Adams, *Heroes,* 78.

12 Heaters, or forges, were used to heat rivets for the bridge.

13 Only an extremely small number of African American men managed to secure work during the Golden Gate Bridge's construction. Charles F. Adams describes William D. Smith, who was one, in his volume on the bridge. See Adams, *Heroes,* 182–186.

14 Twenty-four workers lost their lives building the Bay Bridge. Dillon, DeNevi, and Moulin, *High Steel*, 24.

15 Editors Susan P. Sherwood and Catherine Powell included a passage on the Golden Gate Bridge in their 2008 San Francisco labor landmarks guidebook that

describes the sequence of this work: "After a traveling derrick hoisted units of steel into position, 'raising gangs' aligned and hooked up the plates, and 'connecting gangs' pounded the section into place. The 'bolt up crew' then inserted temporary bolts into about half of the holes, followed by the riveting crew. Crews worked from both ends of the bridge and met in the middle." Susan P. Sherwood and Catherine Powell, eds., *The San Francisco Labor Landmarks Guide Book: A Register of Sites and Walking Tours* (San Francisco: Labor Archives and Research Center, San Francisco State University, 2008), 41.

16 A headache ball is the large ball at the end of a crane's lifting cable. McIntyre is here describing the tragic death of Kermit Moore, who died on October 21, 1936. Moore was climbing off a girder the crane had been picking up when he was fatally hit. Miles Green, another worker, was hit by the cable as it whipped around. He fell into the safety net and survived. Cassady, *Spanning the Gate,* 107–108; Adams, *Heroes,* 278; van der Zee, *The Gate,* 267.

17 It was a tradition among bridge workers to quit work for the day following a tragic accident.

18 An impact wrench is a power-driven socket wrench.

19 Ultimately this problem was confronted when respirators were provided for men working inside the bridge's cells. Many of these workers had become sick from toxic fumes emitted when hot rivets touched red-lead-treated steel. Cassady, *Spanning the Gate,* 72; Currie, *Highlights, Facts, and Figures,* 16, 19.

20 The hard hats typically seen in photos of Bay Bridge workers appear to have broader bills than the Golden Gate Bridge hats McIntyre is describing. Dillon, DeNevi, and Moulin, *High Steel,* 37–42, 58, 115–122, 134.

21 While the bridge was in the planning stages, its potential color, which ultimately became its famous international orange, was a major political issue. See, for example, MacDonald and Nadel, *Golden Gate Bridge,* 49–57; Starr, *Golden Gate,* 106–108. For workers like McIntyre and others quoted in this volume, though, employment and job conditions were what mattered. The color of the bridge might preoccupy boosters, government officials, newspaper reporters, radio commentators, and "the public," but was insignificant to many working-class people struggling to survive during the Great Depression.

22 The Depression remained a serious problem in 1937. Unemployment spiked disturbingly that year when President Roosevelt drastically cut federal relief expenditures. The downturn, which lasted into 1938 before the president increased federal spending, was called the Roosevelt Recession. World War II's full employment was still four years away. Nelson Lichtenstein, Susan Strasser, and Roy Rosenzweig, *Who Built America?* 473–474.

23 Engineers and workers built the original Pitt River Bridge in 1942.

24 Construction of the Bay Area Rapid Transit system spanned 1964–72. The tube section that crosses underneath San Francisco Bay is not quite as far down as McIntyre noted, but at 135 feet it is still impressively deep.

4. JOHN URBAN: CABLE SPINNER

1 The Russian Empire controlled Lithuania between 1793 and World War I. Thousands of people left Lithuania for the United States between the mid-1860s and 1914 to escape famine, Russian rule, or military conscription. By 1930 nearly 250,000 children of Lithuanian parents lived in the United States. U.S. Bureau

of the Census, *Historical Statistics of the United States,* 65. For background, see Nicholas V. Riasanovsky, *A History of Russia* (New York: Oxford University Press, 1963), 298–299, 369, 421.

2 A bucker cut up felled trees into logs. A whistle punk worked in the woods sending messages by wire to the steam donkey (small locomotive) driver or as a safety lookout.

3 Compton's was a local cafeteria chain. Its restaurants were typical of the urban cafeteria diners of the mid-twentieth century. The company closed its last Northern California restaurants in the 1970s.

4 The New Deal's National Recovery Administration came into existence under the National Industrial Recovery Act of 1933. The NIRA's section 7A said that workers had the right to join unions of their own choosing, although there was no machinery to enforce compliance with the statute, and many employers fought unionization fiercely by firing activists and sometimes employing less-peaceful tactics. Some installed "company unions" to get around the intent of the law by blocking out worker-controlled organizations. But firms that signed up with the NRA program received certain benefits, including NRA "blue eagle" display emblems. The Supreme Court declared the NIRA unconstitutional in 1935. It was replaced that year by the stronger National Labor Relations Act, popularly known as the Wagner Act. Bernstein, *Turbulent Years,* 30–35, 172–173, 318–330, 639; David Brody, *Labor in Crisis: The Steel Strike of 1919* (Philadelphia: J. B. Lippincott Company, 1965), 181–184, and "The Emergence of Mass Production Unionism," in *Change and Continuity in Twentieth-Century America,* ed. John Braeman, Robert H. Bremner, and Everett Walters (New York: Harper and Row, 1966), 238–253; Robert H. Zieger, *The CIO: 1935–1955* (Chapel Hill: University of North Carolina Press, 1995), 16–17. For background on the Cooks' and Waiters' Union, see Edward Paul Eaves, "A History of the Cooks' and Waiters' Unions of San Francisco," M.A. thesis, University of California, Berkeley, 1931; for a book of wide vision that traces important developments in food-service unionism over time, see Dorothy Sue Cobble, *Dishing It Out: Waitresses and Their Union in the Twentieth Century* (Urbana: University of Illinois Press, 1991).

5 The San Francisco general strike of July 16–19, 1934, followed a massive worker funeral procession up Market Street on July 9 in protest of the police killing of two waterfront pickets four days earlier on "Bloody Thursday." One of the two men killed, Nick Bordoise, was a member of Cooks' Union Local 44. In the aftermath of their victory in 1934, the longshoremen led, sponsored, or inspired the unionization of thousands of men and women along the West Coast. Selvin, *A Terrible Anger,* 11–17, 149–150, 182–222; Harvey Schwartz, *The March Inland: Origins of the ILWU Warehouse Division, 1934–1938* (Los Angeles: Institute of Industrial Relations, University of California, 1978; reprint San Francisco: ILWU, 2000); Schwartz, *Solidarity Stories: An Oral History of the ILWU* (Seattle: University of Washington Press, 2009), 30–31, 168–198.

6 San Francisco's Tenderloin District did not have a very respectable reputation when I interviewed Urban in 1987.

7 To ease local unemployment, applicants were supposed to have resided in the Northern California counties of the Golden Gate Bridge District for one year to qualify for bridge work. James Reed, "Notice to Applicants for Employment, Golden Gate Bridge," Golden Gate Bridge and Highway District, 1932, Labor Archives and Research Center, San Francisco State University.

8 Armistice Day, commemorating the end of World War I on November 11, 1918, became a legal holiday in 1938. Congress changed the name to Veterans Day in 1954.

9 The bridge's two main suspension cables were each made of twenty-seven thousand rows of the thin but extremely strong galvanized steel wire Urban is describing. Themselves made of strands of banded wire, the cables were 36.5 inches in diameter. The strands that made up the cables were anchored on both sides of the bridge in eyebars sunk into huge cement foundations or anchor blocks. The strands for the cables were spun on-site by the contractor, John A. Roebling's Sons Company, between November 1935 and May 1936. Urban was there for the entire process. The technical on-site spinning procedure, which the Roebling Company had pioneered, is described in detail in Cassady, *Spanning the Gate,* 84–101, and Adams, *Heroes,* 250–258.

For the evolution of American bridge building in the nineteenth century and the Roebling Company's historic role in that process, see Daniel Calhoun, "A Case in the Analytic: Bridge-Building," *The Intelligence of a People* (Princeton, NJ: Princeton University Press, 1973), 291–304. On the Roebling Company, which gained lasting fame by constructing the Brooklyn Bridge, see David McCullough, *The Great Bridge: The Epic Story of the Building of the Brooklyn Bridge* (New York: Simon and Schuster, 1982), and Donald Sayenga, ed., *Washington Roebling's Father: A Memoir of John A. Roebling* (Reston, VA: American Society of Engineers, 2009).

10 Urban is here referring to the San Francisco–side tower top, located 746 feet above the water.

11 Long-handled underwear, often called a union suit, was popular between the 1890s and the 1930s. The garment consisted of a long-sleeved shirt and ankle-length drawers combined in one piece.

12 Roebling completed the bridge's main cables in six months. The job ended on May 20, 1936. The company beat its contractual time limit on the cable job by employing extra spinning wheels. This was an innovation at the time. Roebling still had to hang the suspenders to hold the bridge's roadway, but its hardest job was done. Cassady, *Spanning the Gate,* 89–90.

13 Fifty years after that party, Urban still retained his invitation, which he showed to me when I interviewed him. It read, in part, "Roebling Party. Golden Gate Bridge Employees. May 23, 1936, Paradise Cove, Marin County. This is your invitation and pass for transportation. . . . Celebrating completion of cable spinning. Please bring this card with you."

14 Urban is describing a block-and-tackle lift system.

15 Tag lining is managing a rope or cable to control weight being lifted.

16 In the late 1930s, activists associated with the West Coast–based International Longshoremen's and Warehousemen's Union frequently boycotted scrap-iron shipments bound for Imperial Japan. Larrowe, *Harry Bridges,* 131–133; Schwartz, *Solidarity Stories,* 115, 181–182.

17 Urban is referring to the February 17, 1937, tragedy when Strauss's safety net broke and ten workers died. Al Maillioux was the district safety engineer who had recently inspected the platform. Cassady, *Spanning the Gate,* 109–110.

18 The CIO split from the AFL over organizing strategy, which emerged nationally in 1935, reached the West Coast in force during 1937. The new CIO sponsored the unionization of America's semiskilled mass-production workers. Urban, whose union was affiliated with the craft-oriented AFL, was hardly the only worker who

was upset by the threatening prospect of the country's labor organizations battling each other. In 1955, the AFL and the CIO rejoined under the name AFL-CIO.

19 Buttner was injured in April 1937, just weeks before the bridge was finished. He was knocked unconscious and broke ribs and an arm when a metal cable fell on him. Adams, *Heroes,* 306.

20 The reference here is probably to the Sheet Metal Workers International Association.

21 Samuel I. Hayakawa was a semanticist and an English professor who served as president of San Francisco State University during a turbulent, high-profile 1968–69 student and faculty strike, which he vehemently opposed. He became a public symbol of some citizens' negative reaction to unions and to the countercultural movement of the 1960s. In 1976, running as a Republican, he was elected to represent California in the United States Senate. While he was in office, media people frequently reported that he often slept through legislative deliberations. He did not run for a second term.

In the wake of the late twentieth- and early twenty-first-century U.S. political "culture wars," various analysts and writers questioned why numerous workers like Urban sometimes appeared to vote against their own economic self-interests. For one popular example, see Thomas Frank, *What's the Matter with Kansas? How Conservatives Won the Heart of America* (New York: Henry Holt, 2004).

5. FRED BRUSATI: ELECTRICIAN

1 Angelo Brusati's operation, Brusati Brothers Scavenger Service, was the predecessor of Marin Sanitary Service. "Fred A. Brusati worked on the Golden Gate Bridge," *Marin Independent Journal,* San Rafael, CA, July 31, 1989.

2 In 1933, Roebling built a "reeling plant" at California City that used steam cleaning to remove shipping wax from strong steel wire sent from its New Jersey home facility. Workers in the California City plant then spooled the wire for use in spinning the bridge's cables. Adams, *Heroes,* 251–252.

3 Workers erected the north, or Marin, tower between August 1933 and May 1934, although it was not fully ready for cable spinning until that November. The south or San Francisco–side tower was built between January and June 1935. Cassady, *Spanning the Gate,* 70, 74; Adams, *Heroes,* 202, 240–242.

4 The whirley crane got its name not for speed, but because it could rotate 360 degrees in picking up and depositing loads.

5 For more on this episode, see Dillon, DeNevi, and Moulin, *High Steel,* 84; Adams, *Heroes,* 250.

6 The catwalks providing access for cable spinning were completed in late September 1935. Adams, *Heroes,* 251–253.

7 The anchor blocks on the Marin and the San Francisco sides of the bridge were huge concrete edifices with giant eyebars to hold the cables. The spinning process began in earnest in November 1935 and lasted for seven months. Cassady, *Spanning the Gate,* 49; Adams, *Heroes,* 251–258.

8 A bridge's backspan is a section that is located beyond or outside the bridge's middle or main span.

9 A 1936 photo by *San Francisco Chronicle* staff photographer Clem Albers reveals how steep and exposed the catwalk looked during construction. Many good photos were taken showing the catwalk, but this one, which filled a whole page at 22

inches by 16.5 inches, is especially big and dramatic. It also suggests how interested members of the media were in the progress of the bridge's construction. See *San Francisco Chronicle,* Rotogravure Pictorial Section, July 19, 1936, p. 1.

10 One writer argues that there was a slight delay in the arrival of rescue vessels from the Coast Guard station just inside the Golden Gate. A fishing boat skippered by Mario Marybella, not the Coast Guard, picked up Evan C. "Slim" Lambert and Oscar Osberg, the two men who were saved. See van der Zee, *The Gate,* 279–281.

11 News reporters called Casey "the thirteenth man." He told his story, including the part about the pipe, to the press immediately after the accident. See *San Francisco Examiner,* February 18, 1937, pp. 1, 5.

12 Workers completed the last major structural job on the bridge, the paving of the roadway, in April 1937. Cassady, *Spanning the Gate,* 118–120; van der Zee, *The Gate,* 292.

13 This incident occurred before the February 17, 1937, torn net disaster that killed ten workers. Van der Zee, *The Gate,* 268.

14 Inexpensive color photography was not widely available to amateur photographers until the 1950s.

15 In addition to its early patented "hard-boiled" industrial hats, which were made of steamed canvas and came with leather brims, the Bullard Company pioneered sandblasting air respirators for the Golden Gate Bridge project. When I interviewed him in 1987, Brusati still retained his woven canvas safety belt from the bridge job as well as his black Bullard hard hat.

16 In support of the war effort, between 1942 and 1945 Marinship Corporation hastily built ninety-three vessels to transport cargo and fuel overseas. The plant was just three miles north of the Golden Gate Bridge. "Marinship: 1942–1945," U.S. Army Corps of Engineers' Bay Model Visitors Center, Sausalito, CA, no date. For in-depth coverage of the twenty thousand men and women shipyard workers employed at Marinship during World War II, see Charles Wollenberg, *Marinship at War: Shipbuilding and Social Change in Wartime Sausalito* (Berkeley, CA: Western Heritage Press, 1990).

17 When Brusati passed away in 1989 his obituary acknowledged that he had been a member of Local 551 for "more than 50 years." *Marin Independent Journal,* July 31, 1989.

18 After fifteen years of open-shop, or non-union hegemony, unionism in the West expanded dramatically in the wake of the longshoremen's and seamen's victory in the 1934 Pacific Coast maritime strike. Even Local 614 of San Rafael became strong enough to be prominently listed in the *Marin County Directory* for 1939–40, with Harvey E. Smith identified as secretary.

19 There were experiments with television before the 1930s, but no nationwide commercial TV broadcasting until after World War II.

20 The Tacoma Narrows Bridge in Washington State, built between 1938 and 1940, had a suspension system that somewhat resembled the one used on the Golden Gate. In late 1940, a few months after it opened, the Tacoma Narrows Bridge collapsed during a major storm.

21 Use of the dated term *colored people* for African Americans was common before the civil rights and identity politics movements of the 1960s–70s.

22 Although many women worked in industry to support the war effort, old condescending attitudes often persisted. Many African American workers migrated to the Bay Area, too, because of the era's war-induced labor shortage. But scarcely

a decade earlier there were very few African American men and virtually no women in the skilled and semiskilled trades on local jobs like the Golden Gate Bridge project.

6. MARTIN ADAMS: LABORER

1 By way of comparison, in 1934 probably the majority of non-union San Francisco warehouse workers made about forty-eight cents an hour. This was three-quarters of what was then a "living wage" in that city. Even considering the relatively higher cost of living in San Francisco compared to rural Arkansas, forty-eight cents was far better than ten cents an hour. See Schwartz, *The March Inland,* 2, 179.

2 Batching refers to mixing ingredients.

3 Work on the Bay Bridge was finished in October 1936. Officials declared the bridge completed and open for use the following month. Dillon, DeNevi, and Moulin, *High Steel,* 24.

4 Falsework provides temporary support for spanning or arched structures under construction. Between Roman times and about 1900 almost all bridge falsework was made of wood.

5 A derrick barge is a flat floating structure fitted with a crane.

6 Sea diving has always been a demanding and dangerous occupation. The dreaded illness called the bends was only the best-known of the many problems that a 1930s bridge diver could encounter while handicapped by heavy and cumbersome equipment and little or no visibility. The currents under the Golden Gate were especially challenging. Divers performed a variety of underwater tasks in bridge building, including guiding piles into place. Adams, *Heroes,* 224–229.

7 The organization's official name is Laborers' International Union of North America. It has existed in San Francisco since 1916. Bill Talbitzer, "Laborers Local No. 261, Excerpts from *The Laborer in the West,*" San Francisco Building Trades Council, *Commemorating 100 Years of Excellence,* 74.

8 Immediately following the union victory in the great 1934 West Coast maritime and San Francisco general strikes, many Bay Area employers accepted organization peacefully instead of risking another major confrontation. See Schwartz, *Solidarity Stories,* 175–176.

9 In late October 1936, the West Coast maritime unions struck for the second time in a little more than two years. Largely because of the growth of union power since 1934, the employers did not try to break this strike by force as they had unsuccessfully attempted to do two years earlier. Consequently, the 1936–37 Pacific Coast maritime strike was peaceful. Larrowe, *Harry Bridges,* 114; Bruce Nelson, *Workers on the Waterfront: Seamen, Longshoremen, and Unions in the 1930s* (Urbana: University of Illinois Press, 1988), 214.

10 In the mid-1930s, bridge construction workers frequently called the Golden Gate Bridge the "Gate" or the "Gate Bridge."

11 Each sliding scaffold or platform was sixty feet long. Adams, *Heroes,* 304.

12 Contemporary news writers reported on this equipment failure extensively in illustrated stories. See, for example, *San Francisco Examiner,* February 17, 1937, p. 12; February 18, p. 36; February 20, p. 36.

13 The other survivor of the twelve who fell was the carpenter Oscar Osberg. Like Osberg, Lambert was badly injured. Adams, *Heroes,* 295–299; van der Zee, *The Gate,* 280–281.

14 The day after the tragedy the State Industrial Accident Commission blamed the contractor for what had happened. See *San Francisco Examiner,* February 18, 1937, p. 1. Official investigations followed shortly. Concerned authorities, including Joseph Strauss, the Golden Gate Bridge District's chief engineer, and Philip Hart, the Pacific Bridge Company's president and the district's contractor, blamed each other. Local 261's attorney, Elmer P. Delany, spoke on behalf of the deceased laborers. Several workers, including Adams, testified about missing bolts, but in the end no one was held legally liable. The last official body to come to this conclusion was the State Industrial Accident Commission. Cassady, *Spanning the Gate,* 110; Adams, *Heroes,* 303–305; van der Zee, *The Gate,* 283–286.

15 The bridge deck's center, where the accident occurred, is 220 feet above the water. MacDonald and Nadel, *Golden Gate Bridge,* 120.

16 T. H. Chambers, the president of the Building Trades Council, spoke on behalf of worker concerns just after the tragedy. *San Francisco Examiner,* February 21, 1937, p. 3. In late April 1937, about two months after the accident, the State of California consolidated older labor statutes into a new California Labor Code.

17 The dinkey and its load smashed into the bridge's Marin-side anchor block. See van der Zee, *The Gate,* 268. Brusati also described this incident in his oral history.

18 Since the bridge proper is 1.7 miles long, this could be quite a lengthy walk. MacDonald and Nadel, *Golden Gate Bridge,* 119.

19 Hoover served as president between 1929 and 1933. Like Joseph Strauss, the Golden Gate Bridge's political crusader who got most of the public credit for that project, Hoover was an engineer with experience in large-scale construction. He did back both bridge projects in various ways while president. In 1932 he supported a $72 million Reconstruction Finance Corporation federal loan for the Bay Bridge's construction. The Golden Gate Bridge, though, was financed by a regional $35 million bond, not through federal funding. Starr, *Golden Gate,* 56–57, 73–78.

20 The members of Pile Drivers, Divers, Bridge, Wharf and Dock Builders Local Union No. 34 are highly skilled in what has historically been specialized, physically demanding work. The local can trace its origins in the Bay Area back to 1877. Since 1920 it has been affiliated with the United Brotherhood of Carpenters and Joiners of America as a local of that organization. Ira B. Cross, *A History of the Labor Movement in California* (Berkeley: University of California Press, 1935), 321; Michael S. Munoz, *"Pilebutt": Stories and Photographs about Pile Driving* (San Leandro, CA: Pilebutt Press, 1986), 20–38, and "Short Early History of Pile Drivers Local No. 34," in San Francisco Building and Construction Trades Council, *Commemorating 100 Years of Excellence,* 278–279; Archie Green, *Wobblies, Pile Butts, and Other Heroes: Laborlore Explorations* (Urbana: University of Illinois Press, 1993), 365–441.

7. EVAN C. "SLIM" LAMBERT: SURVIVOR

1 Ron Chew, *Remembering Silme Domingo and Gene Viernes: The Legacy of Filipino American Labor Activism* (Seattle: University of Washington Press, 2012), contains much useful historical information on conditions in the seasonal Alaska salmon canning industry.

2 Lambert broke his ankle in this early 1932 accident. Adams, *Heroes,* 291.

3 Construction work for the Bay Bridge began in May 1933. This incident would have occurred sometime subsequent to that date, especially considering that the

bridge's towers were apparently already up. Dillon, Moulin, and DeNevi, *High Steel,* 15; Adams, *Heroes,* 291.

4 With its Bay Bridge work nearing completion in 1935, the Pacific Bridge Company sent Lambert to the Golden Gate Bridge job as a labor foreman. Adams, *Heroes,* 292–293.

5 Pacific Bridge paved the Golden Gate Bridge's roadway with concrete between January 19 and April 19, 1937. Cassady, *Spanning the Gate,* 108, 122.

6 These panels would likely have been flat, rectangular pieces of construction material employed to form part of a surface. The train ran off the end of the tracks, fell 150 feet, and smashed on the ground, but no one was badly hurt. Adams, *Heroes,* 293.

7 Estimates of the weight of the staging board vary somewhat, but it probably weighed at least five tons. Van der Zee, *The Gate,* 277; Adams, *Heroes,* 294.

8 This was the crab fisherman Mario Maryella. *San Francisco Examiner,* February 18, 1937, p. 1; van der Zee, *The Gate,* 281.

9 Lambert's neck injury only became known twenty years after the accident, when he went for a physical examination. Adams, *Heroes,* 349–351.

10 Accounts of Lambert's physical condition immediately following the accident and his valiant bid to save Dummatzen's life have varied a good deal over the years. See, for example, *San Francisco Examiner,* February 18, 1937, pp. 1–2; Dillon, Moulin, and DeNevi, *High Steel,* 90–93; Adams, *Heroes,* 295–297; van der Zee, *The Gate,* 277–281; Cassady, *Spanning the Gate,* 109; Horton, *Superspan,* 45; Starr, *Golden Gate,* 135. Amy Standen used brief excerpts from my interview with Lambert to recount his tragic experience of February 17, 1937, on her radio program, "Life on the Gate: Working on the Golden Gate Bridge, 1933–1937," aired on Quest Northern California, station KQED, San Francisco, April 27, 2012. The program text was immediately posted online. It was later printed as Amy Standen, "Life on the Gate," *SF State Magazine* 12, no. 12 (Spring–Summer 2012): 16–17.

11 The ambulance ultimately delivered Lambert to St. Mary's Hospital in San Francisco. *San Francisco Examiner,* February 18, 1937, p. 1; Adams, *Heroes,* 296.

12 Lambert returned to work on the bridge just a month after the accident. Adams, *Heroes,* 349.

13 Lambert's reference here is to the May 24, 1987, Bridge Walk '87 event that celebrated the fiftieth anniversary of the bridge's opening. Bridge Walk '87 attempted to re-create the 1937 opening ceremony walk. It was held on the bridge the day before Lambert's interview with me.

14 Approximately two hundred thousand people walked across the bridge on May 27, 1937. The estimates for the May 1987 event ran to eight hundred thousand. Starr, *Golden Gate,* 143–144; Cassady, *Spanning the Gate,* 122–129; Horton, *Superspan,* 48–53; Currie, *Highlights, Facts, and Figures,* 21, 40–42; *San Francisco Chronicle,* May 25, 1987, p. 1.

The weekend the bridge opened in May 1937 there was a Grand Labor Ball at the Civic Auditorium in San Francisco. The proceeds went to the families of the men killed building the span. There was also a memorial service on the bridge for the total of eleven men who had perished during construction. Children from every school in the city cast flowers into the water. With the children were representatives from all the unions that had worked on the bridge and family members of those who had died. *Labor Clarion,* June 4, 1937, pp. 1–2. A plaque dedicated to the memory of the eleven fallen workers was erected on the bridge as well. It was blessed by religious leaders in July. *San Francisco Chronicle,* July 16, 1937, p. 1.

15 By 1987 Lambert operated seven sightseeing boats out of Pearl Harbor and was invested in fishing and hotel businesses. Adams, *Heroes,* 349. Lambert was visiting San Francisco from Hawaii for the fiftieth anniversary of the opening of the Golden Gate Bridge when I interviewed him.

16 Lambert's ideas about politics and unions run counter to those of many labor activists, as does the thinking about changing voting patterns that Fred Divita and John Urban attested to. But such sentiments were often shared by other workers over the decades following the 1930s, a political shift that has continued to vex dedicated laborites for years.

8. AL ZAMPA: LEGEND

1 The union's full name now is International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers. Local 377 can trace its Bay Area origins back to the 1890s. In the period Zampa was describing, the union experienced a resurgence as part of the labor movement's Depression Decade recovery from its decline in the 1920s. "Structural and Ornamental Iron Workers Local No. 377," in San Francisco Building and Construction Trades Council, *Commemorating 100 Years of Excellence,* 70. Two Northern California locals of the ironworkers' union had roles in the 1930s Bay Bridge and Golden Gate Bridge construction projects: Local 377 of San Francisco and Local 378 in Oakland. The dispatching of ironworkers to jobs on the Golden Gate Bridge went through the Local 377 union hall. Thanks to Dick Zampa, Al Zampa's son, for helping to clarify and reorder this paragraph, which is hard to follow in the transcript of Isabelle Maynard's 1986 interview with Zampa on which this chapter is based.

2 The original Bay Bridge's foundations were deeper than any previously built. Dillon, DeNevi, and Moulin, *High Steel,* 16.

3 The first Carquinez Bridge across the Carquinez Strait connected the California towns of Crockett and Vallejo. Located thirty miles northeast of San Francisco, it was constructed by the American Toll Bridge Company between 1923 and 1927. Zampa got his start as an ironworker on that job in 1925 when he was twenty. He passed away in 2000 after a long life as a celebrated bridge builder. When the third of three Carquinez bridges opened in 2003, it was named the Alfred Zampa Memorial Bridge in his honor. It is the only American bridge named for a construction trades worker. John V. Robinson, *Al Zampa and the Bay Area Bridges* (Charleston, SC: Arcadia Publishing, 2005), 7–9, 33, 125–126, and *Spanning the Strait,* 1–21. Both of Robinson's books contain numerous stunning and informative bridge construction photos, many taken by him. For supplementary photos of the 1927 Carquinez Bridge under construction, see Harvey Schwartz, *Union Carpenters, Navy Town: The First 100 Years of Local 180, United Brotherhood of Carpenters and Joiners of America, in Vallejo, California, 1899–1999* (Vallejo, CA: UBCJA, 1999), 8–10.

4 *Camelback* refers to the side-view image of bridge structures like the five built on the eastern crossing of the original Bay Bridge. The shape of these spans is reminiscent of a camel's back.

5 By this time, in mid-1936, Zampa had worked on the Bay Bridge for at least two and a half years. Robinson, *Al Zampa,* 53; Adams, *Heroes,* 279. On Zampa's life and career, in addition to Robinson's work, see Misha Berson, "Fingerprints on Steel: Bridge Working Ace Al Zampa's Life above Water," *Image,* May 10, 1987, reprinted

in Napa-Solano Building and Construction Trades Council, *Celebrating 100 Years of Union History, 1899–1999* (Benicia, CA: Napa-Solano Building and Construction Trades Council, 1999), 24–26; Joseph A. Blum, "Building Bridges," *New Labor Forum* 12 (2003): 49–57.

6 The top and bottom chords are the top and bottom horizontal steel members of a truss. A stringer is a longitudinal beam installed to ultimately help support a bridge deck. See MacDonald and Nadel, *Golden Gate Bridge,* 106.

7 Zampa's fall occurred in October 1936. At this point in the construction process, there was no deck surface beneath him. That would not be completed until early the next year. Cassady, *Spanning the Gate,* 38–39, 107.

8 Zampa's back was broken in four places. He had fallen into a section of the safety net that was above hard ground and had not yet been properly tightened. Adams, *Heroes,* 279; van der Zee, *The Gate,* 164.

9 By the end of construction, nineteen men had fallen into the net and survived. Dillon, DeNevi, and Moulin, *High Steel,* 132; Starr, *Golden Gate,* 134.

10 As part of the fiftieth anniversary of the completion of the Golden Gate Bridge's construction, in 1987 Steve Zeltzer and the Bay Area Labor Video Project produced a film about the bridge's workers and their unions. As a tribute to those who died building the span and to those who survived falls, the Video Project titled the movie *Half Way to Hell.* Robinson, *Spanning the Strait,* 19–20.

11 John V. Robinson, an experienced ironworker himself, wrote of Zampa: "His near fatal fall from the Golden Gate Bridge in 1936 and membership in the 'Halfway to Hell Club' made him newsworthy. His recovery and return to work on other Bay Area bridges made him legendary." Robinson, *Al Zampa,* 9. In 1987, Isabelle Maynard's interview with Zampa became the basis for a successful play based on the ironworker's life and work. Titled *The Ace,* it was performed that year in San Francisco. Stacey Palevsky, "China-Born Author Isabelle Maynard Dies at 78," *The Jewish News Weekly of Northern California,* July 27, 2007; Robinson, *Spanning the Strait,* 18–19.

12 A sandhog is a construction worker who labors in underground excavation. Since the late nineteenth century, for an example, New York's sandhogs have become famous for working on dangerous and demanding projects like the Brooklyn Bridge, the city's many major tunnels, and New York City's subways. Local 147 of the Laborers' International Union of North America, which has represented New York City tunnel diggers for years, is widely known as NYC Sandhogs 147.

13 Workers constructed the second Carquinez Strait Bridge between 1955 and 1958. Robinson, *Al Zampa,* 83; Robinson, *Spanning the Strait,* 15.

14 Dick Zampa went on to become general organizer and then vice-president of the Iron Workers International, which serves as the union's national-level umbrella organization. Robinson, *Spanning the Strait,* 15. By 2013 four generations of Zampa family members had become ironworkers.

15 The Bay Bridge's west-side span is actually made up of two suspension bridges joined at a common anchorage. At 4,200 feet, the Golden Gate Bridge's suspension bridge main span is longer than each of the Bay Bridge structure's two 1936 suspension parts. See Dillon, DeNevi, and Moulin, *High Steel,* 16, 77.

16 Zampa's interesting take here, of course, is from the technical perspective of a veteran bridge builder, not a non-construction person who might primarily appreciate the Golden Gate Bridge's geographical setting, apt color, and graceful suspension system.

17 In 1986, when this interview was done, it understandably might not have been clear to Zampa that American unions were in the early stages of a long-term decline.
18 As the fiftieth anniversary of the opening of the Golden Gate Bridge approached in the mid-1980s, Zampa was lionized by an assortment of journalists, television producers, and other media people as the unofficial ambassador to the Bay and Golden Gate bridges. Robinson, *Spanning the Strait,* 16–17.

9. MARY ZITA FELCIANO AND PATRICIA DEWEESE: NURSES

1 The reference here is to the motherhouse of the Sisters of Mercy for California and Arizona. The motherhouse was founded twenty miles south of San Francisco at Burlingame, California, in the mid-1920s to serve as the Catholic order's West Coast administrative center. St. Mary's Hospital of San Francisco itself dates from 1857. Sister Mary Zita Felciano took her vows as a Sister of Mercy in 1930. Telephone interview, Sister Marilyn Gouailhardou, archivist, Sisters of Mercy, Burlingame, CA, May 30, 2014.
2 Slim Lambert, who is the subject of chapter 7, and Oscar Osberg, the two injured survivors of the net accident of February 17, 1937, were both treated at St. Mary's Hospital. The eight men might have been brought to St. Mary's another day. Adams, *Heroes,* 296; van der Zee, *The Gate,* 281.
3 The nineteenth-century Welsh surgeon and orthopedic medicine pioneer Hugh Owen Thomas invented the splint named after him. Its introduction into common use during the early twentieth century was credited with dramatically reducing the mortality rate of patients with femur fractures. Modified and improved over time, the Thomas splint's basic design was still in use during the early years of the twenty-first century.

10. WALTER VESTNYS AND JOYCE "BIG J" HARRIS: MAINTENANCE IRONWORKERS

1 The Teamster-affiliated Chauffeurs' Union Local 265 received its charter in 1909. It was quite active in San Francisco through the 1970s. Teamsters Local 85 dates back to 1901 and the important City Front Federation strike in San Francisco of that year. Robert Edward Lee Knight, *Industrial Relations in the San Francisco Bay Area, 1900–1918* (Berkeley: University of California Press, 1960), 212; David F. Selvin, *Sky Full of Storm: A Brief History of California Labor* (Berkeley: Institute of Industrial Relations, University of California, 1966), 21–26; Issel and Cherny, *San Francisco, 1865–1932,* 86–88. See also Robert McClure Robinson, "A History of the Teamsters in the San Francisco Bay Area, 1850–1950," unpublished PhD dissertation, University of California, Berkeley, 1951.
2 On high-tensile bolts superseding rivets in bridge construction during the 1950s and 1960s, see John Reincke, "The Turn of the Nut," *Mates: Materials and Technology Engineering and Science* 36 (October 1989): 1–2.
3 The designation B & O refers to an ironworker's backing-out punch. It resembles a hammer but features a round eye on one side of its head that fits around the end of the rivet.
4 A hickory-stripe shirt is a black-and-white vertically striped garment made of heavy material. Frisco jeans were sturdy black denim pants that withstood hard

use well. Both items were favored by Bay Area industrial workers between the 1930s and the 1960s.

5 John Francis "Jack" Shelly was then the mayor of San Francisco. Cherny and Issel, *San Francisco,* 76–78.

6 Unfortunately, over time the bridge has become known for the large number of people using it to commit suicide. During the 1960s, there were about thirty suicides a year. As of 2009, more than thirteen hundred Golden Gate Bridge suicides had been recorded, but the actual total was probably higher. MacDonald and Nadel, *Golden Gate Bridge,* 105–117; Starr, *Golden Gate,* 165–176.

7 The district, founded in 1928 as the Golden Gate Bridge and Highway District, changed its name slightly in 1969 to reflect added obligations. To ease traffic on the bridge, in 1970 the district began offering ferry service through a special division. Currie, *Highlights, Facts, and Figures,* 3–4, 59, 85.

8 Vestnys held his post as head of the ironworkers' apprenticeship program in San Francisco for more than thirty years. "Walter Vestnys Death Notice," *San Francisco Chronicle,* September 18, 2011.

9 Tongue Point in Astoria, Oregon, is the location of the Job Corps vocational training center.

10 Harris's son, Dontrelle Willis, grew up to become a standout Major League Baseball pitcher. He was National League Rookie of the Year in 2003 while playing for the World Series champion Florida Marlins. Two seasons later he won a Major League high twenty-two games, was the runner up for the National League Cy Young Award, and took home the Warren Spahn trophy as the best left-handed pitcher in baseball. Harris, who remarried, also has a second son, Walter. Robert Andrew Powell, "Dontrelle Willis, Please Phone Home," *New York Times,* May 11, 2005; Gwen Knapp, "Willis's Mother Is a Kick: Former Ironworker Inspires, Captivates," *San Francisco Chronicle,* July 22, 2005; Mike Berard, "Belated Meeting: Willis Has Cordial Reunion with Father after 19-Year Absence," *Sun Sentinel* (Denver, CO), August 22, 2003.

11 Harris was encouraging women to enter the trades even before she took this job. See Dave Donelson, "It's Dirty Work, and These Women Gotta Do It," *Christian Science Monitor,* January 6, 2003. In 2014, using her maiden name, Joyce Guy, she served as a staff member at the West Oakland Job Resource Center, an organization dedicated to helping local residents train for and find employment in the building and construction trades.

12 The Bay Area's 1967 San Mateo to Hayward Bridge underwent seismic retrofitting in 2000 and lane expansion in 2003.

FURTHER READING

Several good books have been written about various aspects of the Golden Gate Bridge. Those who want to read more will find the list below helpful in locating some of the best and most available volumes in libraries, bookstores, or online. Many of the books noted are ones I found to be especially useful in preparing this text.

Adams, Charles F. *Heroes of the Golden Gate.* Palo Alto, CA: Pacific Books, 1987. A history focused on the leading personalities and politics behind the bridge construction project, with useful descriptions of workers interspersed throughout.

Brown, Allen. *Golden Gate: Biography of a Bridge.* Garden City, NY: Doubleday, 1965. An early classic about the bridge's construction, including discussions of its political history and its record of suicides committed from its heights.

Bunting, Eve. *Pop's Bridge.* Orlando, FL: Harcourt, 2006. A short, illustration-driven children's book that looks at the Golden Gate Bridge's construction through the eyes of a high-steel worker's adolescent son.

Cassady, Stephen. *Spanning the Gate: The Golden Gate Bridge.* Rev. ed. Santa Rosa, CA: Squarebooks, 1986. A history of the bridge's construction with emphasis on its technical aspects, this book includes instructive photographs and quotes from workers.

Chester, Michael. *Joseph Strauss: Builder of the Golden Gate Bridge.* New York: G. P. Putnam's Sons, 1965. Written for young readers, this brief biography describes Strauss's early life and his long career as a bridge engineer.

Currie, Mary C. *Highlights, Facts, and Figures of the Golden Gate Bridge, Highway, and Transportation District.* 6th ed. San Francisco: Golden Gate Bridge, Highway, and Transportation District, 2009. A compilation of recent information on the bridge, this volume includes photographs and informative historical material.

Dillon, Richard, Donald DeNevi, and Thomas Moulin. *High Steel: Building the Bridges across San Francisco Bay.* Berkeley, CA: Celestial Arts, 1979. A history of the construction of the San Francisco–Oakland Bay Bridge and the Golden Gate Bridge, driven largely by historical photographs.

Dyble, Louise Nelson. *Paying the Toll: Local Power, Regional Politics, and the Golden Gate Bridge.* Philadelphia: University of Pennsylvania Press, 2009. A sobering scholarly analysis of how since the 1930s the managers of the Golden Gate Bridge, Highway, and Transportation District have often pursued their own personal agendas at the public's expense through cultivating political alliances and influencing policy decisions.

Fireman, Janet, and Shelly Kale. "Bridging the Golden Gate: A Photo Essay." *California History* 89, no. 4 (2012): 3–40. The only article-length publication cited on the list, this lavishly illustrated portrayal of the bridge's history and construction appeared in a major journal and should be readily available in libraries.

Golden Gate National Parks Conservacy. *Building the Golden Gate Bridge: Courage, Ingenuity, Vision* (San Francisco: Golden Gate National Parks Conservacy and Golden Gate Bridge, Highway, and Transportation District, 2012). A collection of photos from the district's archives.

Horton, Tom. *Superspan: The Golden Gate Bridge.* San Francisco: Chronicle Books, 1983. A brief yet helpful summary of the bridge's historical origins, the politics that predated its construction, and its building process.

Lewis, Karen R. *Building the Golden Gate Bridge: A Directory to Historical Sources.* San Francisco: Labor Archives and Research Center, San Francisco State University, 1989. An annotated guide to primary source material on the bridge that will help any researcher, this bound 76-page catalog is available at LARC and other libraries.

MacDonald, Donald, and Ira Nadel. *Golden Gate Bridge: History and Design of an Icon.* San Francisco: Chronicle Books, 2008. The building of the bridge from the perspective of an architect who redesigned parts of the span in later years, this publication includes unique hand-drawn illustrations.

Merritt, Anne. *Historic Photos of the Golden Gate Bridge.* Nashville, TN: Turner Publishing, 2008. A photo essay featuring the construction of the bridge and the May 1937 celebration of the official opening of the span to traffic.

Robinson, John V. *Al Zampa and the Bay Area Bridges.* Charleston, SC: Arcadia Publishing, 2005. Al Zampa's wide-ranging career as a high-steel bridge builder depicted through text and photos.

———. *Spanning the Strait: Building the Alfred Zampa Memorial Bridge.* Crockett, CA: Carquinez Press, 2004. A photo-driven chronicle of the building of the third bridge connecting Crockett and Vallejo, California, with valuable information on Al Zampa's life and career.

Schock, James W. *The Bridge: A Celebration—The Golden Gate Bridge at Sixty, 1937–1997.* Mill Valley, CA: Golden Gate International, 1997. A history of the bridge's construction in large format accompanied by photos, this volume includes highlights from the annual reports of the Golden Gate Bridge, Highway, and Transportation District covering 1937 through 1996.

Starr, Kevin. *Golden Gate: The Life and Times of America's Greatest Bridge.* New York: Bloomsbury Press, 2010. A helpful overview of the politics and building of the bridge by the dean of California historians, who emphasizes his personal admiration for the span's architectural achievement and beauty. The epilogue quotation is from page 126.

van der Zee, John. *The Gate: The True Story of the Design and Construction of the Golden Gate Bridge.* New York: Simon and Schuster, 1986. An in-depth history of the bridge's history, politics, and construction, this book brought to light the often overlooked contributions of the engineer Charles A. Ellis to the span's spectacular success.

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