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Their "Tool Box Talks" expose peril where it prowls and set up safety measures to meet on-the-job needs.

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Bechtel Briefs

A BUILDER & HIS FAMILY

By ROBERT L. INGHAM

CHAPTER FOUR

After completion of the Northwestern Pacific contract, Dad kept crews and equipment on the line for a year or so, clearing out slides and doing general maintenance work. But from 1916 until the end of World War I he was not as active in construction as theretofore. Two mining ventures, a manufacturing experiment, some land transactions and a brief return to farming occupied his energies.

During the summer of 1915 Warren and Steve went up to Eureka on a lumber schooner. There they met their father there and drove into Oregon. He had invested in a placer gold mine together with one of the Brownings of Ogden, a family having an interest in the Utah Construction Co. but better known as the inventors and manufacturers of the Browning machine gun. The mine was located on the Sixes River near Port Orford, and into its development the partners poured over two hundred thousand dollars. But two months after operations began, like the California placers fifty years earlier, disaster struck. The local dairymen down river went to court, got a permanent injunction to prohibit debris damage to their farming pursuits, and the Sixes River mining venture was over. Dad tenaciously held on to the property and it remained in his estate until eventually bought by a Chinese who converted it into a seed farm.

The vest-pocket tooth brush

During this period W. A. invested in an Arizona copper mine and bought land rights along the Mexican border. Earle Lloyd went to New York for him on another deal, the Sanifold Manufacturing Company. This was a not too happy experiment in manufacturing and distribution. The product was novel, but born of a concept that overestimated the American urge to cleanliness. The Sanifold tooth brush was, as its name implies, both sanitary and folding. It collapsed neatly to slip into a vest pocket, and the sanitary feature was provided by a built-in cup that completely covered the bristles in the folded position. To own a Sanifold was to be assured clean teeth at any time, no matter how far from the comforts of one's own bathroom. Travelers and campers, however, failed to react in the numbers expected. This experiment in consumer goods cost him a sizable chunk of money. He charged it off to experience, wryly observing that shoemakers should stick to their lasts. And it showed another human side—that the same vision and enthusiasm which made him a great builder could be a liability in an alien type of business. Of course the Sanifold incident has been paralleled times without number when other successful men have stepped out of business character. With Dad it didn't happen twice.

The mines and Sanifold were offset by profitable land investments which included downtown property in Los Angeles and Oakland. Youthful training in horse trading stood him in good stead on transactions of this sort, as did his knowledge of farming on several agricultural projects he tried. The largest was a bean growing operation on leased land in the Central California delta region, not far from Stockton. Dad's return to the soil was in response to the national plea for increased food production during the first World War.

1917: For the boys—school and war

The "post-Northwestern Pacific" period brought along high school days for the Bechtel boys. Warren attended Fremont High, Steve and Kenneth went to Technical High, both Oakland Schools. Later, when Piedmont High opened, Kenneth transferred and received his diploma there. All three boys went on to the University of California. Warren before the United States entered the war, and the others after the Armistice. Kenneth was much too young for war service, no recruiting sergeant could have winked him in. Wishing he were older, he dug into the war program of the Boy Scouts of America with a will, and as a member of Oakland Troop 1 went ahead to become an Eagle Scout. From that day on, his lively interest in the Scout movement never flagged. The two older boys joined the United States Army soon after hostilities commenced. Both saw service in France, Warren with the 18th Engineers and Steve with the 20th Engineers.

Construction during World War I did not approach the volume or scope it assumed in the recent conflict. Consequently, whereas the Bechtel contribution to success in the second war was organizational, in 1917 and 1918 it was personal, made by two young soldiers overseas, by Dad in food production and by the helpful home front jobs a young fellow could do in the wartime Scout program.

When 1919 brought the return to peace, W. A. Bechtel and Henry P. Hoey obtained a contract for highway construction along the Klamath River in the extreme northern portion of California. W. A. had worked with Henry Hoey on Southern Pacific jobs, notably at Natron, where Hoey was the railroad's engineer in charge of construction. Highway building headquarters were established at Happy Camp in Del Norte County. The road traverses the Siskiyou Mountains through some of the most primitive country in the State. Bechtel and Hoey's part of it went south down the canyon from Happy Camp to a point north of Somesbar. The job was completed after surmounting a number of unexpected difficulties, and now forms a link between U. S. 99 in the Central Valley and the Coast Highway, U. S. 101, via State 96 and U. S. 299.

The Klamath Highway contract is another milestone because it marks a departure from specialization to railroad construction. Dad had graded county roads in Kansas and streets in Oakland—he had worked in quarries and on levees and canals, but as an employee, not a contractor. Nine years before, the Oakdale water tunnel had been a change from railroad work but merely an isolated case, whereas the Klamath River Highway was the first of an orderly series of moves made outward toward new horizons. Of additional interest—this was the first California contract let by the United States Bureau of Public Roads.

1919: NWP again

In the same year—1919—W. A. went back to the Northwestern Pacific, to recondition the line after it returned to private control following wartime operation by the Federal Government. Railroad work continued to dominate Bechtel volume for another decade, but from this time on it never again occupied the organization's capacity to the exclusion of other kinds of construction.

1919: From rails to highways, the start of diversification

Dad had made the Natron cuts and built the third section of Northwestern Pacific line as an individual, but the short-lived arrangement with Ray Wattis and the Bechtel and Hoey job on the Klamath were forerunners of later partnerships into which he entered. His opinion was that since two capable men had more experience than one, they could team up and accomplish more than either one separately.

Dad's views on partnerships

He held positive convictions on the subject of partnerships. First, he confined such arrangements to men he knew to be reliable, on the theory that "when you can't trust a man's word you can't trust his signature." This view led to verbal understandings sealed by a handshake involving many thousands of dollars.

EDITOR'S NOTE

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His other principals concerned equality of interest. It has been expressed by a former partner in these words: "Dad had no patience with 51-49 arrangements. He used to say 'no man with a sense of self-respect wants to be controlled on that kind of percentage.'"

During 1920 Bechtel and Hoey built another highway for the Bureau of Public Roads, running north through San Gabriel Canyon from Azusa in Los Angeles County. Steve and Art Bechtel were down there that summer. A subcontractor named Leone had the portion of the work where a bluff was to be taken down by blasting. Picric powder had been obtained for the purpose; although similar in appearance to common black powder it was several times more powerful. Leone's men, with the approval of the Bureau of Public Roads field engineer, loaded their shots on the generous basis used for black powder. Dad Bechtel had gone back to camp for lunch. Just as he got there the shot was fired. The ground shook, heaven and earth opened up and rock peppered the landscape for miles around. Of course, the mighty explosion moved several times the amount of material required, but because Leone's subcontract was based on the yardage actually excavated, his "mistake" earned him a substantial profit. Dad never made up his mind how accidental the big blast was, but he saw to it that Leone learned how to handle picric powder.

1920: The Hutchinson Lumber Company logging railroad

One day in 1920, W. A. received a phone call from his old friend with Western Pacific, Tom Phillips. The Hutchinson Lumber Company wanted a logging railroad built up the middle and south forks of the Feather River into the woods, to connect with the WP at Bidwell. Phillips, who was laying it out, thought Dad was the man to build it. He mentioned that a certain day, several months ahead, on which bids would be called, and after some additional conversation, hung up the phone and was soon back at the jobsite, one hundred miles away. But surveys and other preliminary work went slower than anticipated, and the specifications were not ready on time. On the appointed day, having given no further thought to the phone conversation, Tom Phillips came around a bend in the canyon trail and ran smack into Dad, also on foot. "He had that date firmly fixed in mind," Phillips says, "and he was Johnny-on-the-spot at the right moment to look the ground over." When the bids went in, Dad got the job. "Warren Bechtel was up all through the work," Phillips adds, "it was one of his early experiences, and he did a good job, too." The Hutchinson Feather road was a complete self-contained railroad system on a small scale, with everything from its own "main line," to yards and structures.

Second generation railroaders

Between 1920 and 1925 railroad contracts took the Bechtels into Sonoma County to build access roads and tunnels for the Northwestern Pacific, to Stockton on a yard and round-house for Western Pacific, into Arizona for Union Pacific and to various parts of California on Southern Pacific work. From the early twenties on, the three boys began to occupy positions of increasing responsibility. Warren and Steve alternated as project managers on the Stockton contracts, and thereafter headed up the field work on all principal contracts. Kenneth came out from time to time to lend them a hand, but his primary concern lay in preparing himself for the financial and administrative responsibilities already apparent in the family's growing interests.



The Bechtel family about 1915—Mother, Warren, Steve (seated), Ken, Alice and Dad.

Steve he from Dad at Coram

On one of the railroad jobs, clearance of the SP's Coram Tunnel near Redding, California, after a fire, Steve Bechtel ran the crew. While his men were shooting in the tunnel he spotted some cars out on the main line and tied up traffic in the whole Sacramento River Canyon for a time. Word went down to the railroad's main office in San Francisco, someone in authority called Dad, and in a matter of minutes he was on his way to Redding. When he got there Steve caught "what for"—on an occasion like this W. A. was in a class by himself—and Steve remembers the set to as vividly as though it had happened yesterday. Dad was a kindly man but he would not tolerate poor headwork, least of all from his own three sons.

1921: Caribou Water Tunnel, first job for a power utility

While these jobs were in progress the Bechtels chalked up another "first," their first job for a big power utility. This was the Caribou Water Tunnel built for the Great Western Power Company, now part of the Pacific Gas and Electric system. It was completed in 1921 in Plumas County, California, and with W. R. Fontaine as Dad's partner. The water tunnel was two miles long, twelve feet in diameter, and concrete lined. It extended from Butt Valley to a hill above the Caribou Power House. Three hundred men were employed.

Otto W. Peterson, the present Chief Construction Engineer of Pacific Gas and Electric Company, remembers that Great Western Power welcomed Dad's bid. He points out that Bechtel's work on railroad tunnels was well known to utility officials. The Caribou Tunnel construction was accomplished smoothly, he says, "without incident of any kind."