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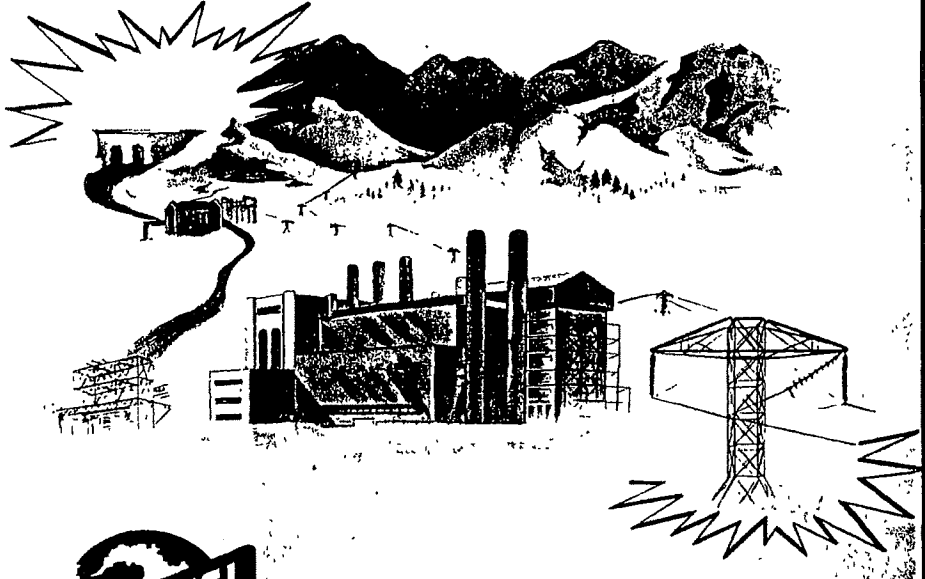
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"Half a million Kilowatts of know how"

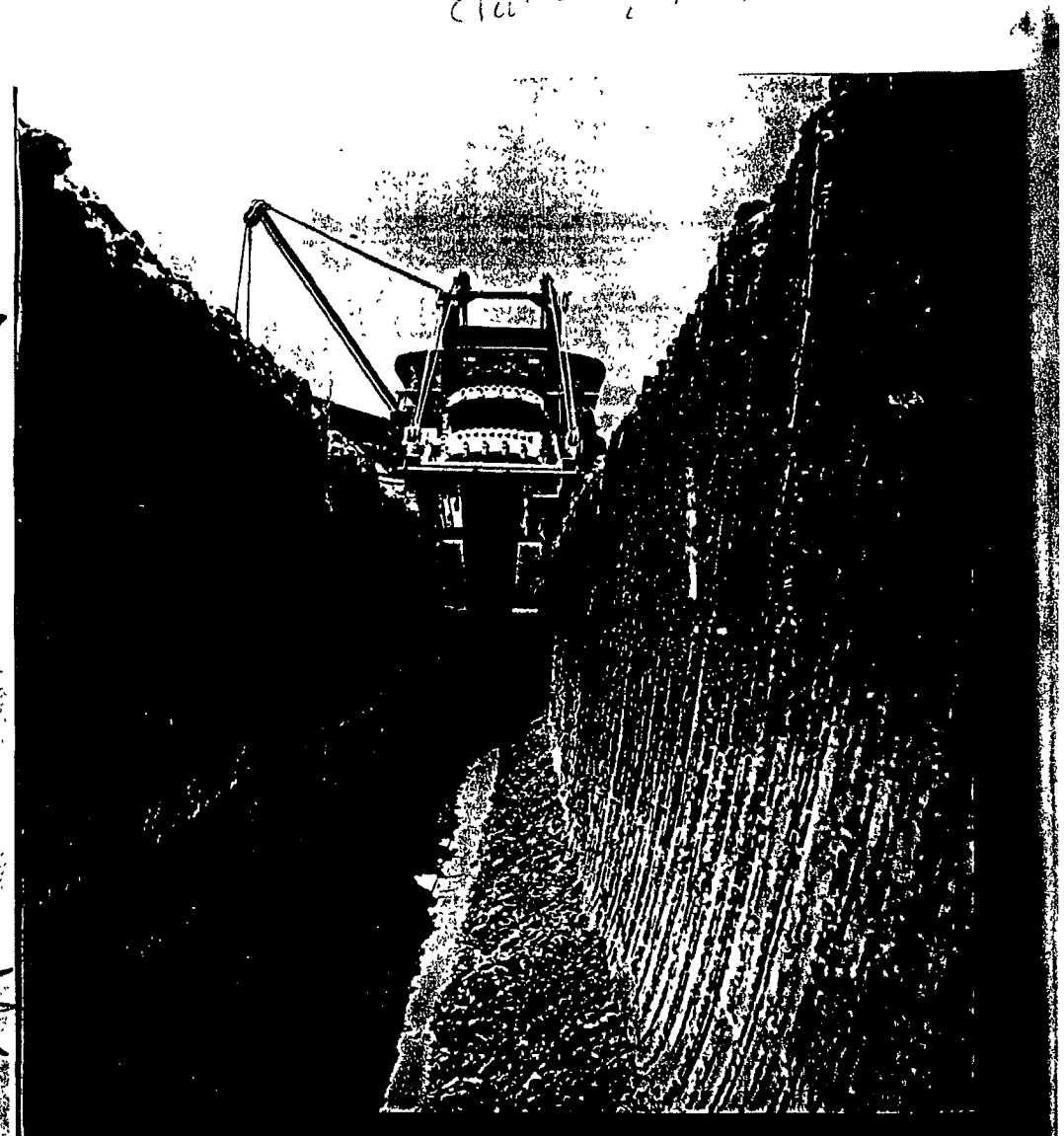
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Bechtel Briefs

A BUILDER & HIS FAMILY

By ROBERT L. INGRAM

CHAPTER TWO

In 1902 and 1903 Silas H Palmer was an inspector for E B and A L Stone an Oakland contracting firm His work took him to Nevada and there, on a siding by the gravel borrow, he met W. A. Bechtel and his family in the box car living quarters Palmer discovered that W. A had figured out how to squeeze the utmost in profitable work from the new steam shovels, using them in combination with his available manpower and transportation facilities. 'His mastery of detail was apparent,' Palmer said, 'and I was attracted at once by his ability I told him that a good job was open with the Stones, and suggested that he look into it'

1904: Superintendent, Oakland, California

Accordingly in 1904 W A. Bechtel moved his family to Oakland, and became a superintendent for the Stone firm. In this capacity he took charge of building the Richmond Belt Railroad and the extension of the Santa Fe into Oakland As an employee of the railroads or their contractors, he was adding to experience on many types of railroad work

Kenneth Bechtel was born on July 4, 1904 while the family lived on Linden Street in Oakland A few blocks away the tracks of the Key System interurban electric line to San Francisco were being laid, and older brothers Warren and Steve remember the excitement when the first Key train came in. At this time, W. A. had charge of filling the swamp at the head of Lake Merritt for Oakland's Lakeshore Park, and of grading Grand Avenue in the Grand Lake District

Shortly afterward the family moved to Placerville, California, where W A ran a slate quarry To a nearby hill, one night in April of 1906, he took the boys. From that place they looked across sixty airline miles and saw a bright red glow in the western sky It was light reflected from flames consuming the city of San Francisco, the great fire following the earthquake

1906: A business was launched

Eight years after his initiation into construction in Indian Territory, W A Bechtel was ready to strike out on his own as a contractor The opportunity came through a subcontract on the Western Pacific main line, then building into Oakland. The site was between Pleasanton and Sunol, and the year, 1906 He hooked up with George S Colley, his friend from Nevada days and a fellow employee at the Stone firm

Thomas L. Phillips, later Chief Engineer of the Western Pacific, recalls that first job "The work consisted of making a cut through hornstone," he says, "and the material thus removed was to be used for adjacent fills There was trouble: the rock broke irregularly, causing a heavy over-break in the yardage excavated Bechtel was hard pressed to make endmeet on the neat yardage of the cut" Right here, he was to demonstrate a necessary quality for the successful contractor, the ability in negotiations to present his case in a convincing manner. "He pointed out that the extra material was being used by the railroad for fills, and appealed for reassessment of the cut. And he got it! As a consequence, instead of losing money Bechtel and Colley made a little on the job."

When the tables turned

There's another story wrapped up in that first subcontract. The partners rented a steam shovel from the prime contractor, who exacted all the law would allow. Bechtel and Colley proved less than persuasive in attempts to get the rental reduced. And when they asked, the young partners were told off in no uncertain terms. Although this contractor then was one of the largest, some years later he had financial reverses and approached W A. for a five thousand-dollar emergency loan Notwithstanding the earlier incident, and the additional circumstance that subsequent high rentals had paid for the shovel several times over, the loan was granted. The incident bears out another characteristic frequently mentioned by old friends: "W. A. was always a fair fellow."

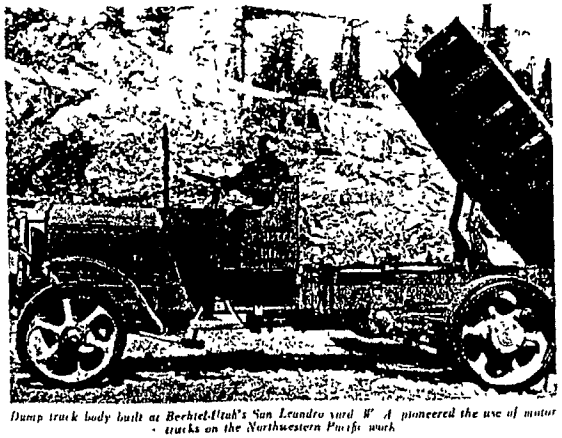
1909: Oroville and the steam shovel

In 1908 he returned briefly to the status of employee, as Project Manager on the construction of the Sutter-Butte Canal, and on levees built near Marysville in the Sacramento Valley During this period the family lived at Biggs, California. More railroad work followed again as a contractor, including some for the Western Pacific, for as Tom Phillips points out: 'I had dealings with W A Bechtel from 1906 on." In 1909, a direct contract was completed for grading the site of the Oroville station. "W. A. had to hustle for funds, Emery Oliver, then WP's Division Engineer, related forty years later. "Apparently, his finances were low at the time as I had to guarantee his account with the wholesale grocer in Marysville." Then as now, the contracting business wasn't always strawberries and cream "However," the veteran railroader concluded "he finished the job and made a little money."

W A now owned the steam shovel he had rented at Sunol and he was proud of this piece of modern equipment It was a Model 20 Marion, a type developed for Panama Canal construction, which had been converted from its former railroad truck mounting to heavy steel traction wheels. Across the cab bold letters proclaimed "W A Bechtel Co — this a full sixteen years before he would incorporate his business! A human touch and indicative of his determination to build a larger organization

1910: Early work on the Natron Cut-Off

Early in 1910 he obtained a subcontract to take out two cuts located fifteen miles below Natron, Oregon, on the Southern Pacific extension from Eugene to Oakridge Here his path crossed that of Hemie Hindmarsh for the second time. Heinie was Resident Engineer on an adjoining section. W. A. ran these jobs himself, using the steam shovel and teams of horses Thirteen years later his sons would be active in the construction program that completed the 270-mile Cascade Line between Oakridge and Black Butte, near Mount Shasta And here they would improve on Dad's livestock by introducing modern power equipment



Dump truck body built at Bechtel-Utah's San Leandro yard W A pioneered the use of motor trucks on the Northwestern Pacific work

EDITOR'S NOTE

Robert Ingram is privileged to present in a series of installments "A Builder and His Family" written and copyrighted by Robert L Ingram



Mulepower—standard energy unit in the early days Mule trains supplied remote jobsites over rough trails summer and winter.



Freight wagons and ten-horse teams were in use when W . A. started in the construction business.



An early contract—grading for Western Pacific's Oroville station with W. A.'s first steam shovel

The partnership with Wattis

For some time W A. Bechtel's activities had attracted the attention of William H and E O Wattis, brothers, who headed up the powerful Utah Construction Co. of Salt Lake City, one of the largest western railroad builders The Wattis brothers were impressed with W A Bechtel's work in Oregon, where the Utah concern held the prime contract E O Wattis had a son, Ray who was anxious to get a subcontract from his father's company, and the story is that the senior Wattis agreed providing his son would take a steady and experienced man for a running mate. As a result, W. A. Bechtel and Ray Wattis became partners on a subcontract under the Utah firm during construction of irrigation district facilities at Oakdale, California Their particular job was to drive a water tunnel and build ditches. The new partners looked the ground over, and the material seemed favorable. W A was familiar with tunneling from his railroad work, there was reason to believe the new partnership would prosper

1911: Hard rock at Oakdale

But, like Sunol, all was not as serene as indicated by surface appearances Hardly had the tunnel portal been opened when the subcontractors ran into a solid ledge of blue diorite Hand drills were helpless against the hard rock, to buck it they had to buy a Water Feeder Denver drill and drill sharpener In the light of today's operations this would scarcely merit mention At the time, however, the event was a milestone, for it marked one more piece of modern equipment W. A. was able to acquire, and another swing away from hand labor, although by necessity

From Oakdale, Wattis and Bechtel moved north into Mendocino County to take the first of three subcontracts under Utah Construction on the Northwestern Pacific Railroad, which was being extended from Ukiah to Willits. The first two contracts were each for building approximately five miles of line, and the third called for a ten-mile grade north to the King Rock Crossing Bridge

The family's shovel runner

W. A Bechtel's brother, Arthur, was a familiar figure on this and earlier work There was an eleven year difference in ages, but even as a youngster of fifteen he had gone out with his brother to work on the midwestern railroad jobs Heinie Hindmarsh recalls him on the Southern Pacific in Nevada, back in 1902.

'Art was just a big kid then, a swamper," Hindmarsh said "He rode out on the end of the boom, tripping the dump gate of a clamshell. There were no bucket controls in the cab so a man had to straddle the 'big stick.' Believe me, it took guts to be a crane jockey." The actual combat of man and machine against the forces of nature were always to Arthur Bechtel's liking. Of later days on the Natron Cut-Off, Art enjoyed remembering: 'The first Marion shovel we bought was my own baby—and there wasn't another shovel runner along the whole line I had to take my hat off to when it came to pitching dirt"

1912: California and Utah went separate ways

Before the third Northwestern Pacific job got under way Wattis and Bechtel obtained another subcontract for a branch running from the main line of the Denver, Rio Grande & Western to a coal mine located near Helper in central Utah. Ray Wattis took charge of the work He assembled several locomotives, trains of dump cars, and two steam shovels Wattis enjoyed looking at this prosperous display of equipment It may have caused him to foresee bright prospects ahead for an operation he could control alone In any event he and W A formed divergent opinions about their future activities and decided to go separate ways The partnership was terminated, Wattis thereupon took over the Utah work and W A. the Northwestern Pacific job in California

NWP: The first real team was put together

As crews moved in to start NWP subcontract number three, W. A. Bechtel returned to doing business as an individual But he was not alone as far as assistance was concerned. He had some good men at his elbow. Earle G. Lloyd who had joined at Oakdale, old standby George S Colley who came back to superintend the NWP work, and of course, brother Art Lloyd handled administrative matters and purchasing, Colley knew men and construction, and Art Bechtel, in addition to his winning ways with a steam shovel, proved the best man on employee relations the enterprise could have found Not that then any of them even had heard the term "employee relations." Rather, that Art was blessed with that open heart and friendly spirit characteristic of the outdoor westerner, and men liked him on sight