

HELP WANTED ADS; Santa Cruz Newspaper, October 14, 1905: "laborers \$2/day." "100 Men Needed For Railroad;"

Before 1900, American cement was considered an inferior product, and plants were small operations of 200 to 300 barrels a day. Between 1900 and 1910, the great expansion of the American cement industry occurred. California plants were established in several locations, both

in Northern and Southern California.

In 1903, cement king, William J. Dingee, came to Santa Cruz and attempted to establish a company on the lands from High Street to Laurel in the Majors Tract. After intense political activity, no cement plant was built in downtown Santa Cruz, although there was a large

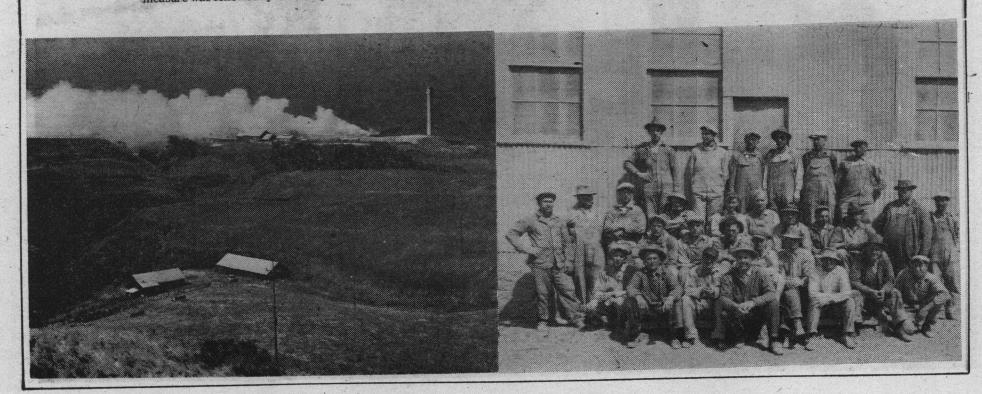
Dingee purchased land in the San Vicente Rancho in the Spring of 1905. By October 1905 work was begun on a new cement plant.

The 1906 San Francisco Earthquake caused a scarcity of mechanics and laborers. It was not until April, 1907, that the "Evening Sentinel" reported that "Cement is being made which is of a superior quality. The company is employing 400 men, and more are on their way

to San Vicente to go to work."

In spite of earlier predictions by enthusiastic promoters stating that the plants capacity would be increased from 6,000 barrels to 10,000 barrels a day, the proposed expansion never took place. The plant shipped 560,000 barrels of cement in 1908. Production rose to 1,400,000 barrels a day, the proposed expansion never took place. The plant shipped 560,000 barrels of cement in 1908. Production rose to 1,400,000 barrels and the proposed expansion never took place. barrels in 1910, a level not exceeded until World War II.

Present production of the plant exceeds 2,000,000 barrels per year, or 6,000 barrels per day. The plant, with its modern technology and specially designed kilns, had a new stack added after World War II. The 235 foot stack is no longer used, but remains a landmark for navigation. The court order decreeing this first air quality control measure was followed by latter day State laws governing control of air pollution and provision for maintenance of ecological standards.



Transportation Played A Vital Role In

Development of Davenport

Captain John Pope Davenport, built a 450 foot wharf at the beach in 1867. Lime, lumber, and whaling grew up around the port, which by 1875, had a hotel, stores and shops, homes and a school. By 1886, the importance of the wharf dimished.

In 1905, the stage road hauled laborers to and from the various railroad and cement plant camps.

Schooners off Davenport Landing brought in cargoes for the construction company.

A coast road became the principle access to Santa Cruz, transporting butter and cheese produced by dairies.

In 1906, the first quarry operation was along newly graded roads in the steep, natural canyon of San Vicente. Hammer-headed tunnels were pushed into the hillside and thousands of pounds of dynamite were detonated to create the first stock piles of raw materials.

The face of the quarry was pushed back into the sides of the ravine, reaching a height of 350 feet. Heavy slides in 1922 closed the quarry. The "glory-hole" method of mining was then established, allowing the rock to cover the bottom of the quarry, and be dropped into holes to train tunnels below.

By 1906, both the Ocean Shore and the Southern Pacific Railroad were constructing planned parallel lines to the plant and settlement. The Southern Pacific survived its competitor and carried three shifts of commuting workers until 1927. The Greyhound Bus took over until after the Second World War.

Cement was shipped at first by the train. When the Santa Cruz Municipal Wharf was completed in 1913, ocean vessels, carrying loads of 400-600 tons, became a primary method of transportation. The Santa Cruz Cement Company built its own 3000 foot wharf in 1934, which operated until 1941 with some difficulties from storm damage. The railroad is still important to the plant.

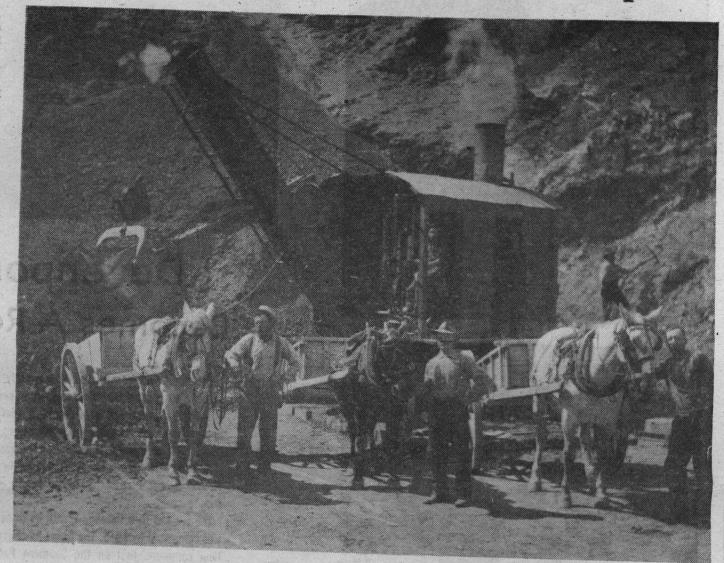
The Coast Highway was built to its present standard starting in 1935. It was rumored that the first section installed in Davenport was where President Hoover's car had gone off the road on one of his visits to Waddell Creek. The final sections of the highway were completed in the early 1950s. Much cement leaves by truck.

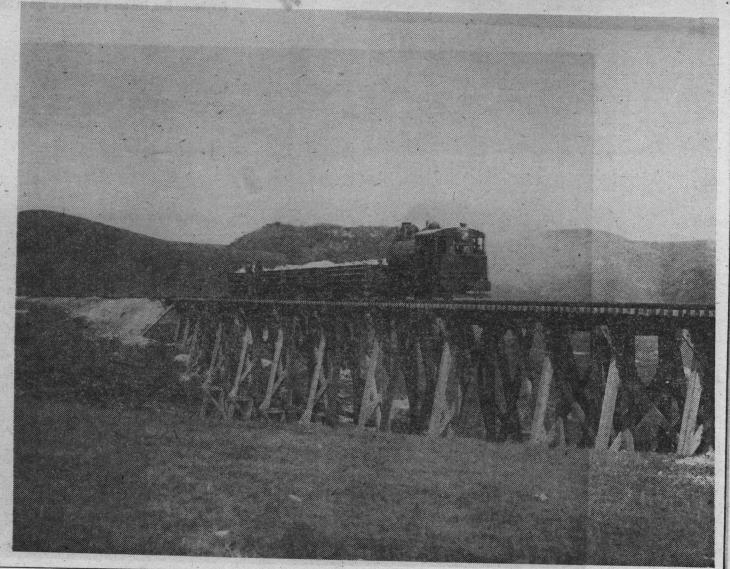
The plant had its own 2½ mile rail line which connected the back of the plant to the quarry.

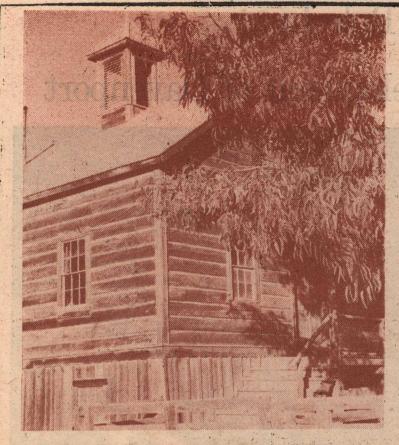
In 1970, the plant shifted its internal transportation from the railroad, to a conveyor system. The 3½ mile conveyor carries rock from both the new limestone and shale quarries and is controlled by one man.

The San Vicente quarry stands hidden — a unique little Grand Canyon. Its now-abandoned face rises nearly 500 feet.

The present Bonny Doon quarry, like the San Vicente quarry, runs up a small canyon and is proposed to twist behind a ridge. This quarry will be rehabilitated. Plantings and sloping faces are designed to return it to nature, blending, rather than contrasting with the surroundings.









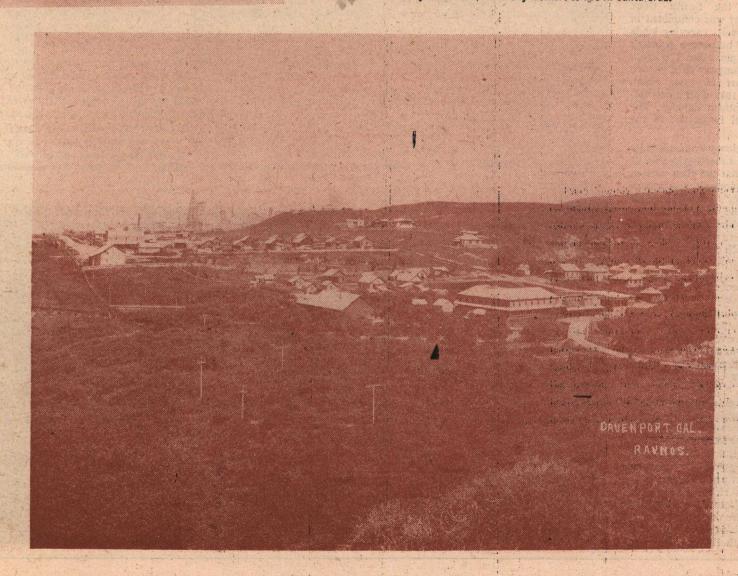


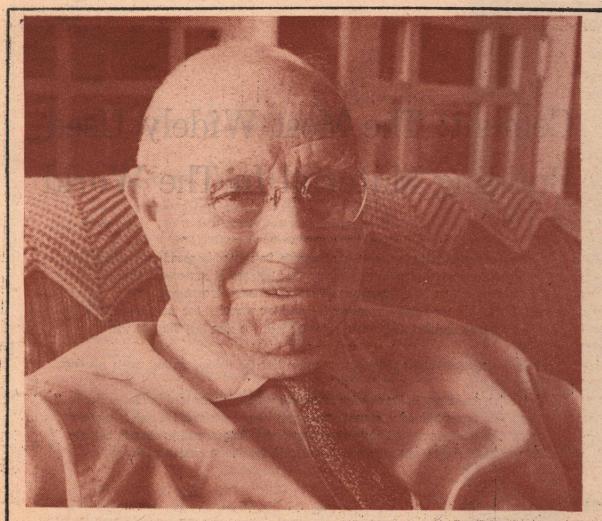
Davenport Becomes A Reality

Davenport was constructed concurrently with the cement plant. Shortly after the plant went into operation, two hotels, the D'Italia and the Oceanview, were operating. There were approximately 60 homes, a jail, retail stores, a school and the concrete Church of St. Vincent De Paul was erected in 1915.

By 1907, there were already 40 children in the new town. The Pacific School District had voted bonds of \$2500 to meet facility costs.

The town of New Davenport, with its three streets of houses, was completed by 1915. The towns never grew larger. The half hour commute, first on the Southern Pacific and then by Greyhound Bus, led many workers to live in Santa Cruz.





Hard Work And Entertainment

Harvey Williams built bridges and transported workers for Shattuck and Desmond. In July 1907, three months after the first barrel of cement was produced, he went to work in the quarry of the Santa Cruz Cement Company. Williams operated the engines which hauled limestone to the plant from the quarry.

Harvey Williams and his wife, Lily, were married in 1913 in Davenport. Their first home was in New Town. In 1918, they rented a home in downtown Santa Cruz until they built their Maple Street home, where they still live.

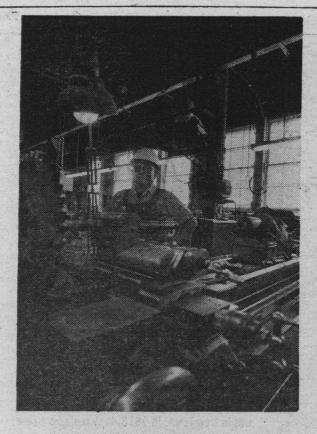
His Uncle Gave Him New Overalls And Took The Young Dry Goods Clerk To Work On The Railroad



Every Sunday a picnic took place on nearby farms and ranches which catered to the cement workers, who had been paid in cash the previous day. The farmer would barbecue the beef which was eaten about 1:00 p.m. following morning games.

After lunch, there was dancing. Late in the afternoons the left-over barbecued meat was made into sandwiches for a final snack. Most of the families went home, leaving a hearty group to carry on with the drinking and dancing.







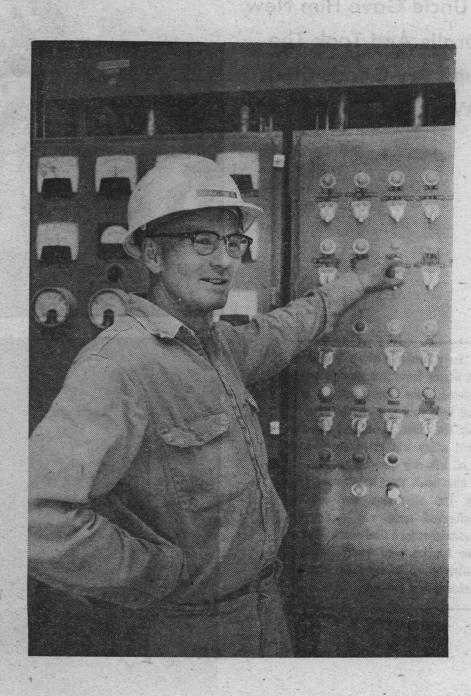
Cement: The Most Widely Used Building Material In The World

Portland cement is the key ingredient of concrete. On a pound-for pound basis, almost twice as much concrete is used in the United States in a single year as all the wood, structural steel, brick, tile, aluminum, building glass and other structural materials combined.

Limestone, the raw material for cement is ground to a powder so fine that nearly all of it will pass through a sieve with 40,000 openings to the inch — a sieve that will hold water.

Tests at different stages of the process ensure that the finished product meets exacting specifications.

The fine, grayish powder-like chemical compound, cement, is never used for construction by itself. When mixed with water, cement forms a paste which binds materials such as sand and gravel tightly together. As the paste ages, it grows even harder, until its strength becomes greater than that of the rock or other "aggregates" mixed with it to make concrete.



The Essential Raw Materials

At the Davenport plant, the raw materials, limestone and shale, which come from the Bonny Doon quarry, are combined and carefully blended to obtain the final chemical proportions required in cement. A conveyor belt transports the raw materials from the quarry to the plant where the second stage of cement making — grinding — proceeds. The limestone and shale are pulverized.

After grinding, the raw materials are combined in the right proportions so that cement made from them will be proper in composition and of uniform quality.

The processing up to this point has had only one purpose: to prepare and combine the raw materials for burning in the kiln—the key process in making cement.

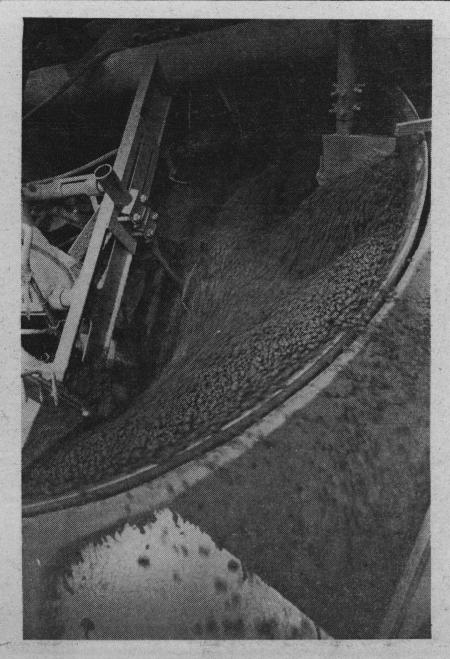
The kiln itself, rotating at an average rate of one turn a minute is the largest piece of moving machinery used in any industry. Made of steel and lined with firebrick, the kiln revolves on huge roller bearings. During the four-hour passage through the kiln, the materials are first dried, then heated, and finally calcined. As the heat increases, the carbon dioxide and other gases are driven from the raw materials, and the original limestone and shale are changed into new minerals.

The heated material emerges at the end of the kiln as round, marble-size, glass-hard balls called "clinker". The clinker is even harder than the rock from which it was produced.

In the final stage of finish grinding, the clinker is first mixed with a small amount of gypsum — not over 3 per cent by weight. The gypsum regulates the time required for the cement to set when it is mixed with other materials and made into concrete or mortar. The first stage of grinding leaves the clinker ground to the fineness of sand. The final grinding process produces a powder finer than flour or face powder.

Cement produced in Davenport today travels by rail and truck to all parts of Central and Northern California.

In the United States one bag of cement weighs 94 pounds; a "barrel" weighs four times that amount, or 376 pounds. The measurement dates back to the time when cement was shipped in wooden barrels of those weights. Now, a ton—2000 pounds—is becoming the standard shipping measure.







LIME...used to build ancient cities...developed into Portland cement, and with new chemical confidence, Americans began to create

And in 1905, near a limestone canyon, built the biggest cement plant in the world...And a town next to it, Davenport...And brought a railroad, highway...power lines, and ships...

Hired immigrants and young men from Santa Cruz...And for seventy years mined limestone and made cement...modernized to meet environmental needs for cleaner air and water...

And for a hundred years the hillsides will provide limestone...the plant will provide jobs...

Cement will be shipped...an improved plant will remain part of the North Coast.

Lone Star Industries

Davenport Cement Plant Operator