



(Right) After the tile are made and carefully dried they are placed in the kiln where temperature of 1800 to 2500 degrees F. "bakes" them for seventy hours. This is a scene at the Needy Factory.

(Below) Fresh tile are taken from the machine at the Hubbard Clay Works. Samuel Hostetter is removing the tile.

Soon after Dan had taken over, it was necessary to replace the old kiln. In 1911 the new kiln was built. It is still being used, although during 1947 it was necessary to put a new crown, or dome, in it. In 1941 another kiln was built. Demand for brick and tile made it necessary. Somewhere along the line sawdust was introduced as a fuel to burn the tile. It was a cheaper fuel but it did not prove altogether satisfactory. Oil

for the mill. Efficient power the factory ever had. It is still the main power miles around the countryside. This has proved to be the most inch stroke. Its steady "push-push" explosion can be heard for power engine has a bore of seventeen inches and a twenty-eight (bulk) Diesel was used in running the factory. This 100 horse they went back to steam again. Finally in 1939 a giant (in steam was again installed. Then gasoline was tried and later electricity came along. Because of the expense of electricity Steam power operated the mill from the beginning until very rugged service of the clay pit.

Dan used several different methods of mining and handling the clay. Slip scrapers and teams were used. But for the most part men and spades were used. In 1941 a power shovel was installed to the relief of the "spade men." As the years moved along the claybank moved farther and farther away from the factory. The horse and cart were replaced with a small rail track and a gasoline powered dumper. This rail system eventually gave way to "Model T" dump trucks, then to "Model A's." Today the Model A is a little outclassed by late model dump trucks. Many a "tough" truck has served its last in the hard work mined the clay in those early days. Isaac was expert, according to old-timers, in mining and tempering the clay before it was molded by the auger machinery. The tile was hand cut to specified lengths. Then it was stacked on pallets or racks to dry. After it was dried it was placed into the kiln. Slabwood from Isaac's sawmill was used to "burn" the tile.

The business was handed down to O. I. Miller, son of Isaac. It grew slowly and continued to be hard work. Very little change in principle or method took place. O. I. Miller ran the factory until D. D. Hostetter purchased the operation in 1911. One day in the spring of 1914, after the drying shed was about one-third full of tile, the old timbers gave way. The shed simply lay down across the tile much as a hen would die on her chicks. "Dan" as D. D. Hostetter is known, was forced to build a new drying shed. The new shed was a three-story building. It was a great improvement over the old one-story 110-foot-long building. This "new" building stands today after years of steady use. In 1936 the business had grown until it was necessary to double the size of the drying shed. As it now stands there is a drying shed 80' x 100' with three floors.

The brick and tile manufacturing industry of the Hubbard, Oregon, community had its beginnings about seventy years ago. Isaac Miller, a man with a sawmill that ran with water power, operated the first tile factory. The slabwood, a by-product of the sawmill, was used for the burning of the brick and tile. This first brick and tile plant was little more than a family operation. Only a few months of the year were used in the making of the brick and tile. Deposits of clay were within a few hundred feet of the factory site. A two-wheeled cart, a team of horses, a spade, and muscle power of men not afraid of hard work mined the clay in those early days. Isaac was expert, according to old-timers, in mining and tempering the clay before it was molded by the auger machinery. The tile was hand cut to specified lengths. Then it was stacked on pallets or racks to dry. After it was dried it was placed into the kiln. Slabwood from Isaac's sawmill was used to "burn" the tile.

Power Machines Appar

by Edward Kenagy

THE BRICK AND TILE INDUSTRY



Clay is loaded by power shovel on a truck that will take it to the Needy Brick and Tile Factory of the Hubbard community. Frank Lais is operating the shovel.

was then tried which was cheap and easier to handle than either sawdust or wood. Oil is still the "burning" fuel at this brick yard.

In bygone years in the summer time the tile were made and stacked on the yard. In the winter time farmers for miles around used to drive their teams and wagons to the tile mill for much-needed holes to let off the extra Oregon moisture. There are still remnants of a tying and feeding rack for horses under the oak trees at the factory. Farmers would come from such great distances that it would take all day to make the trip. The horses were fed and cared for at the factory. It is said that as high as thirty wagons would be lined up at one time waiting their turn. With good roads and machines the old-timers that

Thousands of finished tile are stacked in the yard ready to be hauled away by farmers' trucks. More and more farmers are using tile to drain their land.

Ditch digging is an industry in itself. Needy Brick and Tile have dug over 400,000 feet of ditch in one year. In this picture Ed Hooley is operating the machine and Roy Hooley is laying the tile. Edward Kenagy is standing at the right.

now come to the factory laugh and joke at the memories of the deep ruts and slow rides and small loads.

In August of 1945 Dan Hostetler sold the Needy Brick and Tile Factory with some fifty acres of land to Kenneth Berkey and Edward Kenagy. The four main processes are still the same. They are mining, molding, drying, and burning. At present the mining is done with a power shovel. Moving the clay from pit to storage is done with dump truck. From storage to the granulator (mixer and feeder) a shovel-loader tractor

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