

STORIES of New Jersey

huge, slanted hockey sticks, following the slope of the hill. Near the surface a vein may be a few feet wide, but several hundred feet down it may broaden to 130 feet or more. Elevators plunge men down the inclined shafts to a depth of 1,100 feet. At various levels miners break down the walls of zinc-bearing ore with air drills and dynamite.

The ore from the working places is loaded into small rail cars which are hauled to the shaft by electric motors. These cars dump their contents into pockets at the shaft. From here the ore is loaded into "skips," small scoops on an endless chain, and carried to the surface. The zinc minerals are separated from the waste rock, with which they are mixed, in the mill situated next to the mine shaft.

The ore in pieces of all sizes is dumped through the roof of the mill and conveyed to a large circular "picking table" which rotates slowly. Men sitting on high stools skillfully remove all waste rock and pieces of wood and steel that may have become mixed with the ore. From the picking tables the lumps of ore pass through a series of great crushers where they are broken into smaller pieces. This broken ore is then carried by belts to storage bins and from there to other machines that crush the ore fine enough to break the mineral free from the waste rock.

The Franklin ores contain three main types of zinc-bearing minerals: green Willemite, red Zincite and black Franklinite. Because it is magnetic, Franklinite can be separated from the others by machines equipped with electric magnets. The Willemite and Zincite are separated from the remaining waste material by mixing them with water which is kept in constant motion. The zinc minerals, being heavier, sink to the bottom, where they are collected.

Safety first is strictly observed in mining. The miners wear safety hats and shoes with protective metal coverings to protect them from falling rock, tools or timber. Squads are always on the alert to fight fires or to give first aid in the event of cave-ins. The safety squads are trained in a unique building called the "smoke house," where the structure of the underground workings is duplicated in a huge two-story room. Stout timbers support each floor level; steep inclined walks, made of logs, lead to the upper levels.

During fire-fighting practice the men move with all the speed and purpose of a real emergency. The room is filled with smoke. Up through the different levels of the make-believe mine the men carry heavy logs which take the place of wounded comrades. On their backs are oxygen tanks, weighing 36 pounds, with sufficient oxygen for two hours.

Franklin, with a population of 5,000, and Ogdensburg, with 1,000, depend on the zinc mines for their existence. The zinc company, which employs approximately 1,200 men, provides the only industrial work in the area. Most of the social and business life of the region is centered in Franklin. The company has built and operates a small modern hospital and a completely equipped community center for the workers, their families and other townspeople. The company also furnishes water for the town and has built houses where its workers live. The homes are gradually purchased by the employees, who, for the most part, have been working in the mines for many years.

The mines have yielded more than 3,000,000 tons of zinc ore, with an average of 500,000 tons each year or one-sixth of all the zinc produced in the United States. The people living in or near Franklin and Ogdensburg know that eventually the mines will peter out. Perhaps one day the two communities will be added to older ghost towns of the State, remnants of the day when New Jersey was one of the leading producers of another metallic ore--iron.