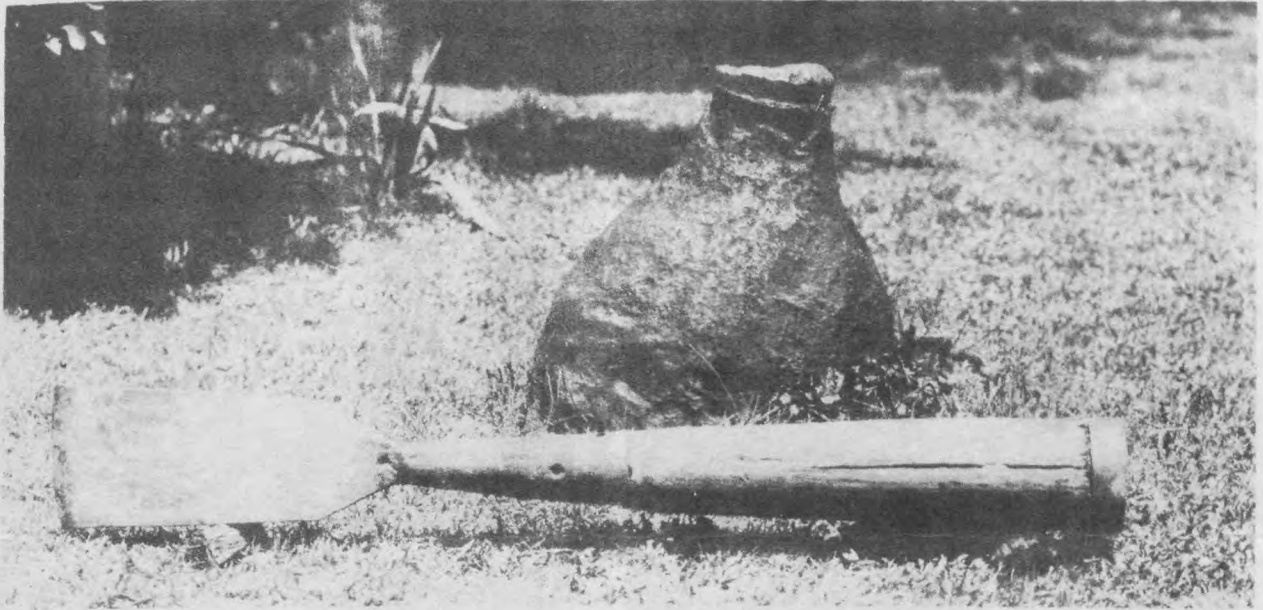


STORIES of New Jersey

sible, the furnace was built against a rise in the land to permit the construction of an incline, or ramp, up which the tons of material used in charging the furnace had to be wheeled.

The furnace was charged with charcoal, ore and lime in alternate layers. The fire was started and forced draft turned on, the blast being furnished by "tub bellows," operated by water power from a nearby dammed stream. As the ore heated, the vegetable matter was burned away and the lime reacted on the hot iron salts to form molten iron.



Ingot and Digger From Taunton Furnace

The impurities rose to the surface in what was termed "slag" and were drawn off through a tap hole at the top metal line. The molten metal was drawn off at the bottom of the furnace. It was led through runners to the "sows" and "pigs," all cut in the sandy floor. When the metal cooled the pigs were broken off to be used in making cast- and wrought-iron products.

Near the furnace was the forge, where the pigs were heated and hammered into bar iron by a giant hammer weighing between 400 and 600 pounds. One end of the hammer was attached to a beam that was alternately lifted and dropped by a cam on the water wheel. Day and night the work went on, as the glare from the fire flamed in the sky above the dark tree tops. From about the middle of April, when the furnace was put in blast, there was no let-up in the work until January, when ice formed in the stream and stopped the water wheel. Then the furnace was blown out and there was a celebration.

The blacksmith who operated the heavy hammer was required to produce a specified amount of bar iron from the pig. From 2,800 pounds of pig iron he had to produce one ton of bar iron. For anything in excess of that amount he received extra pay; for any less he had to make up the deficit.

From the bar iron, by the same primitive, slow methods, were hammered out the pots, pans, kettles, fire irons and nails for the homes of the settlers,