

## ★ LARGE INGOT MOLD CASE

*Iron Age 4/12/17*  
It Will Be Used in Making Great Guns for the  
Government

The Bethlehem Steel Company, South Bethlehem, Pa., announces that the largest octagonal corrugated ingot mold ever cast in the United States, and probably in the world, was successfully made in the steel foundry of the company at South Bethlehem March 30. The dimensions of the mold are 15 ft. 7 in. in height, having a mean diameter of 91½ in. At the thinnest section, or point of the corrugation, the thickness of metal is 15 in., while the heaviest section is 20¾ in.

Owing to the necessity of pouring this casting very quickly, it was decided to make it in the steel foundry, rather than in the iron foundry. Standard Bessemer iron, melted in three large open-hearth furnaces, was suspended in ladles over the mold at one time. A continuous runner from these ladles was made, so that the iron was thoroughly mixed before entering the mold. Three hundred and forty thousand pounds of metal was charged into the furnaces, and after the mold had been filled, 10,000 lb. more iron was brought from the iron foundry, which is situated three-fourths of a mile away, to pour into the sinkhead to feed up the shrinkage of metal. This added metal was filled in about a ton at a time for 3 hr., when the shrinkage stopped; the metal, however, being liquid 5 hr. after the mold was poured.

The making of this large ingot mold, which took four weeks' time, was necessary that a steel ingot of 300,000 lb. could be made for the tubes and jackets for 16-in. and 18-in. guns. Before the mold can be used, large steel bands, 12 in. wide and 8 in. thick, must be shrunk around each end of the casting.

The mold will be left covered in the sand for some time, after which the sand and brick will be removed from it, and two large 100-ton cranes will be used to lift it from the pit to prepare it for shipment to the open-hearth department, where it will be used.