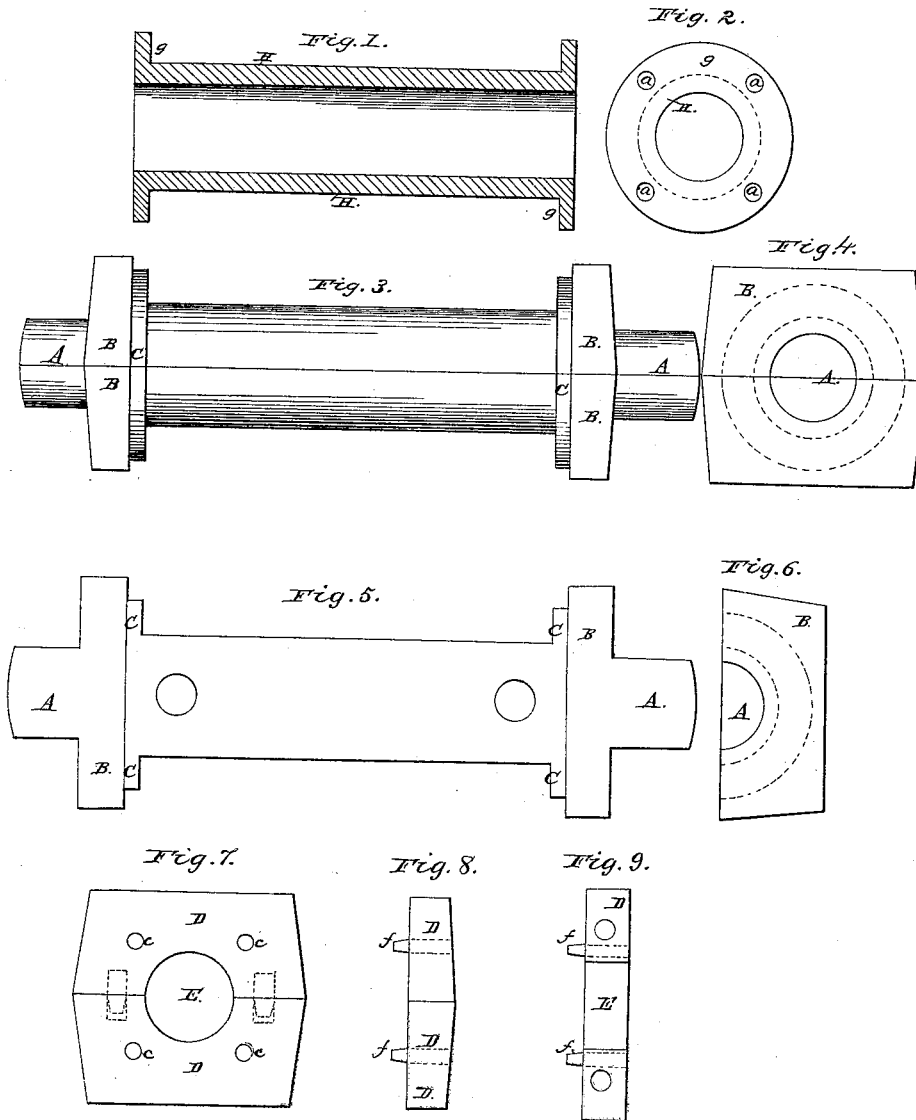


G. T. Sheldon,
Casting Flanged Pipe.

N^o 53,690.

Patented Apr. 3, 1866.



Witnesses:
Samuel A. Waters
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GEORGE T. SHELDON, OF CHELMSFORD, MASSACHUSETTS.

IMPROVEMENT IN MOLDS FOR CASTING FLANGED PIPE.

Specification forming part of Letters Patent No. 53,690, dated April 3, 1866.

To all whom it may concern:

Be it known that I, GEORGE T. SHELDON, of Chelmsford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in the Method of Casting Flanged Pipes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal central section of one joint or length of the common flanged pipe, and Fig. 2 is an end view of the same. Fig. 3 is a side elevation of the pattern required to form the mold in which flanged pipe is cast by my improved method, and Fig. 4 is an end view of Fig. 3. Fig. 5 is a plan of one-half of the pattern, the end of which is shown in Fig. 6. Fig. 7 represents the face side of a pair of the squaring-blocks which are used in connection with the mold to form square ends to the pipe. Fig. 8 is an end view, and Fig. 9 a central edge view, of Fig. 7.

The object of my invention is to avoid the necessity of turning or finishing the ends of flanged pipes or drilling the holes for bolts which hold said pipes together.

I construct my pipe-pattern of any size or length desired, with center prints, A, projecting from each end, by which impressions are made in the mold for the reception of the center core, which forms the interior of the pipe, as usual.

To avoid the necessity of squaring or finishing the ends of the flanged pipe H H or drilling the bolt-holes *a* through the flanges *g* of the same, I have invented the following method of casting said flanged pipes: First, by providing squaring-prints B B, which are fitted onto the center prints, A A, and against the flanged ends C C of the pattern, and secured thereto; second, by providing squaring-blocks D D, Figs. 7, 8, and 9, which are of the same size and form of the prints B B, and by inserting cores *f f* in holes *c*, made through the substance of the blocks D D, to receive them, said cores projecting from the face side of the blocks

D D a sufficient distance to correspond with the thickness of the flanged ends C C of the pattern. The pattern is molded and drawn from the mold in the ordinary way, and the squaring-blocks D D, with cores *f* projecting from their face sides, are set in the mold in cavities formed by the squaring-prints B B. The center core is then set in the mold with its ends resting in cavities formed by the center prints, A A, and in similar openings or bearings E, made in the central edges of the blocks D D. The mold is then closed and filled with melted metal, which flows through the interior of the mold against the squaring-blocks D D around the center core and the cores *f*, and forms a flanged pipe, with the ends squared and finished and the bolt-holes cast, all at the same operation.

The cores *f* may be of sand or metal and fitted to the holes *c* in the blocks D D, said cores being slightly tapering from the face of said blocks to their projecting ends, so as to be easily removed from the casting.

The squaring-blocks D D may be made of metal or of the ordinary sand-core material, and baked to make them sufficiently hard to resist the action of the melted metal and form square ends to the pipe.

The squaring-blocks D D may have the sides of the flask fastened to their ends, and serve the double purpose of squaring-blocks and ends of the flask in which the pattern is molded, in which case the prints B B are dispensed with, and the flanged ends C C of the pattern come in contact with the blocks D D, which form the ends of the flask.

I claim—

The use and application of the squaring-blocks D D and the cores *f*, for the purpose of squaring or finishing the ends of flanged pipes and forming the bolt-holes in the process of casting the same, substantially as specified.

GEORGE T. SHELDON.

In presence of—

SAML. A. WATERS,
JOHN E. CRANE.