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CORE BOX FOR FORMING GLOBE VALVE CORES.
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973,504.

Patented Oct. 25, 1910.

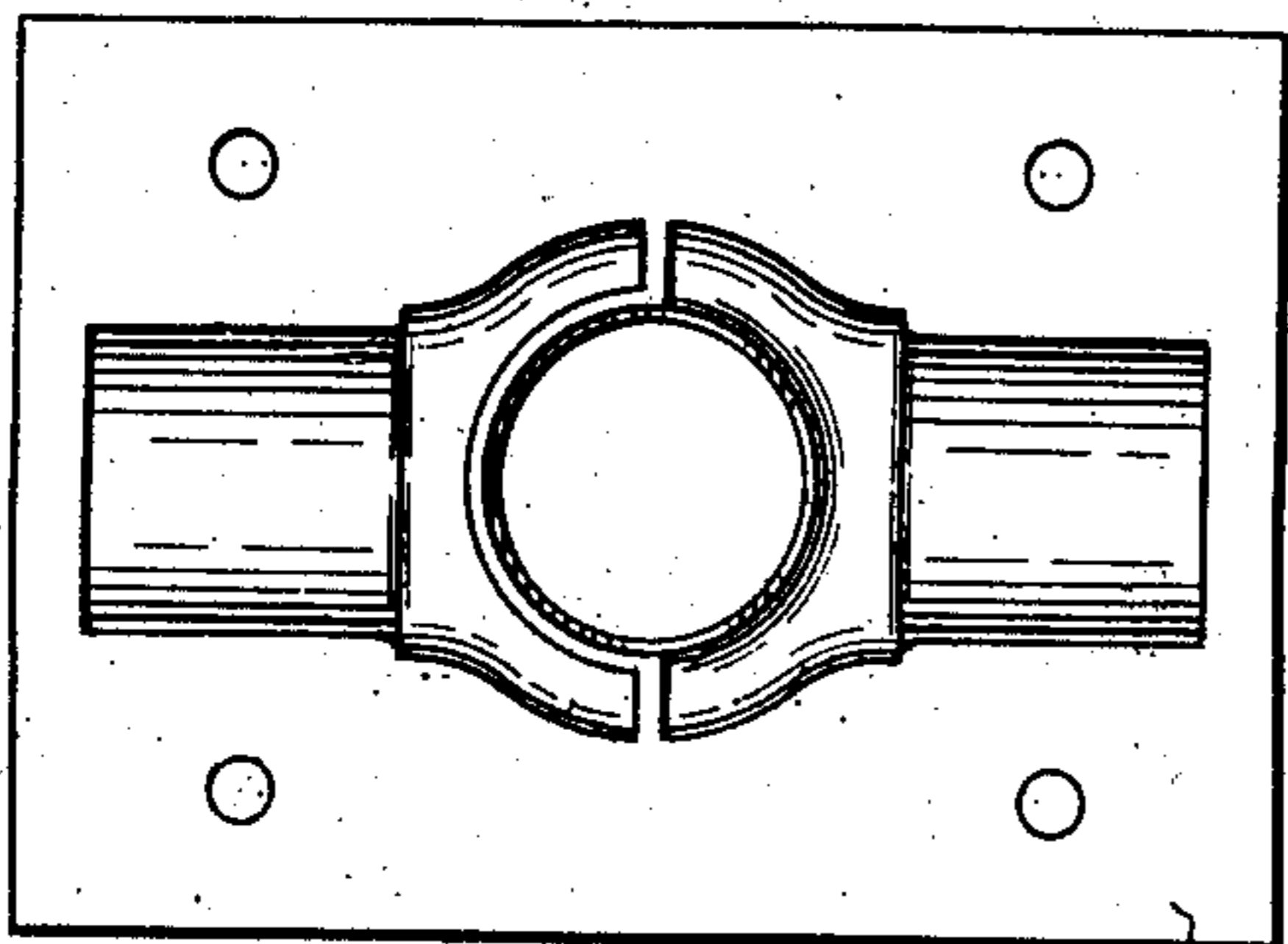


Fig. 1 F

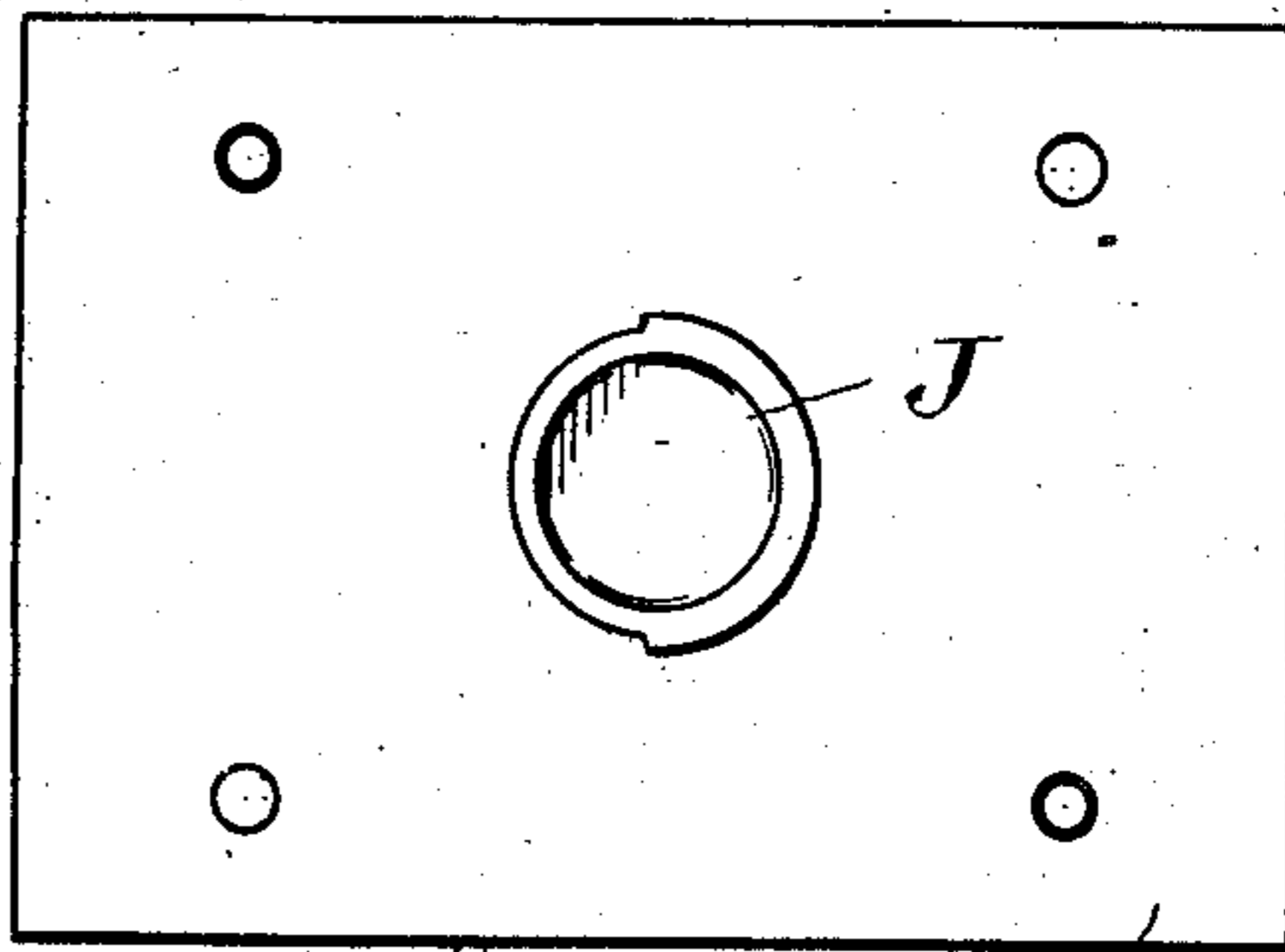


Fig. 3 I

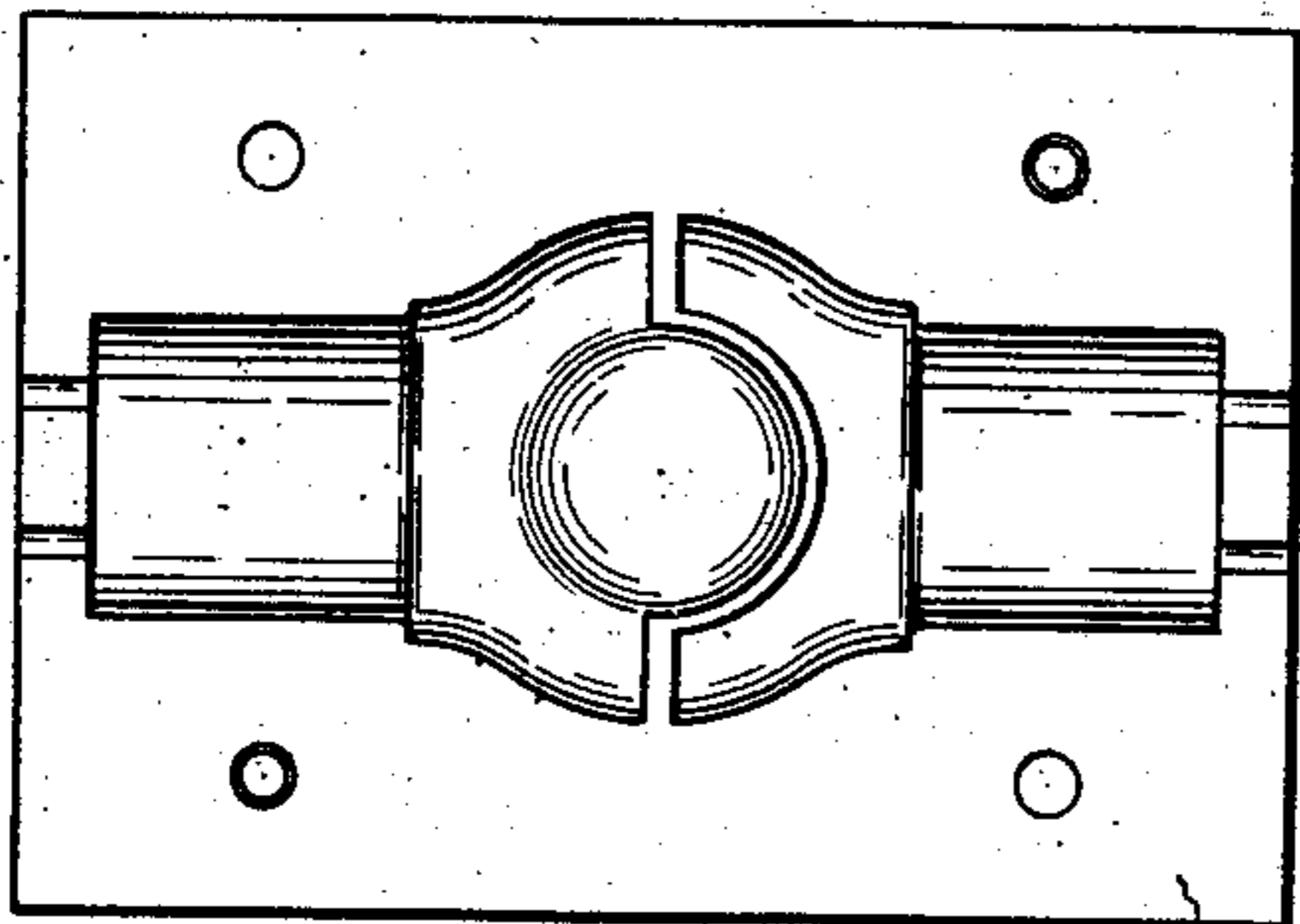


Fig. 2 G

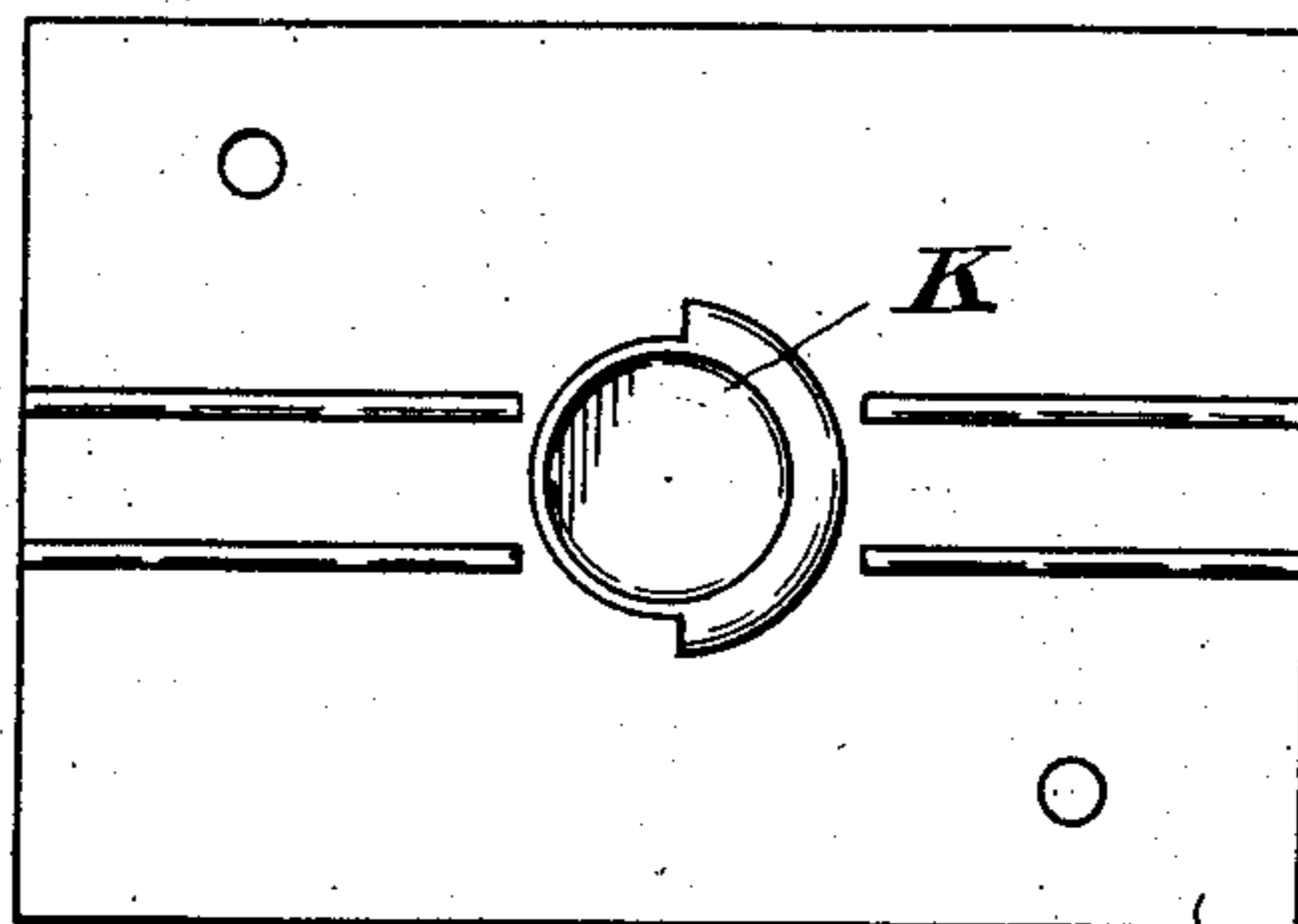


Fig. 4 I

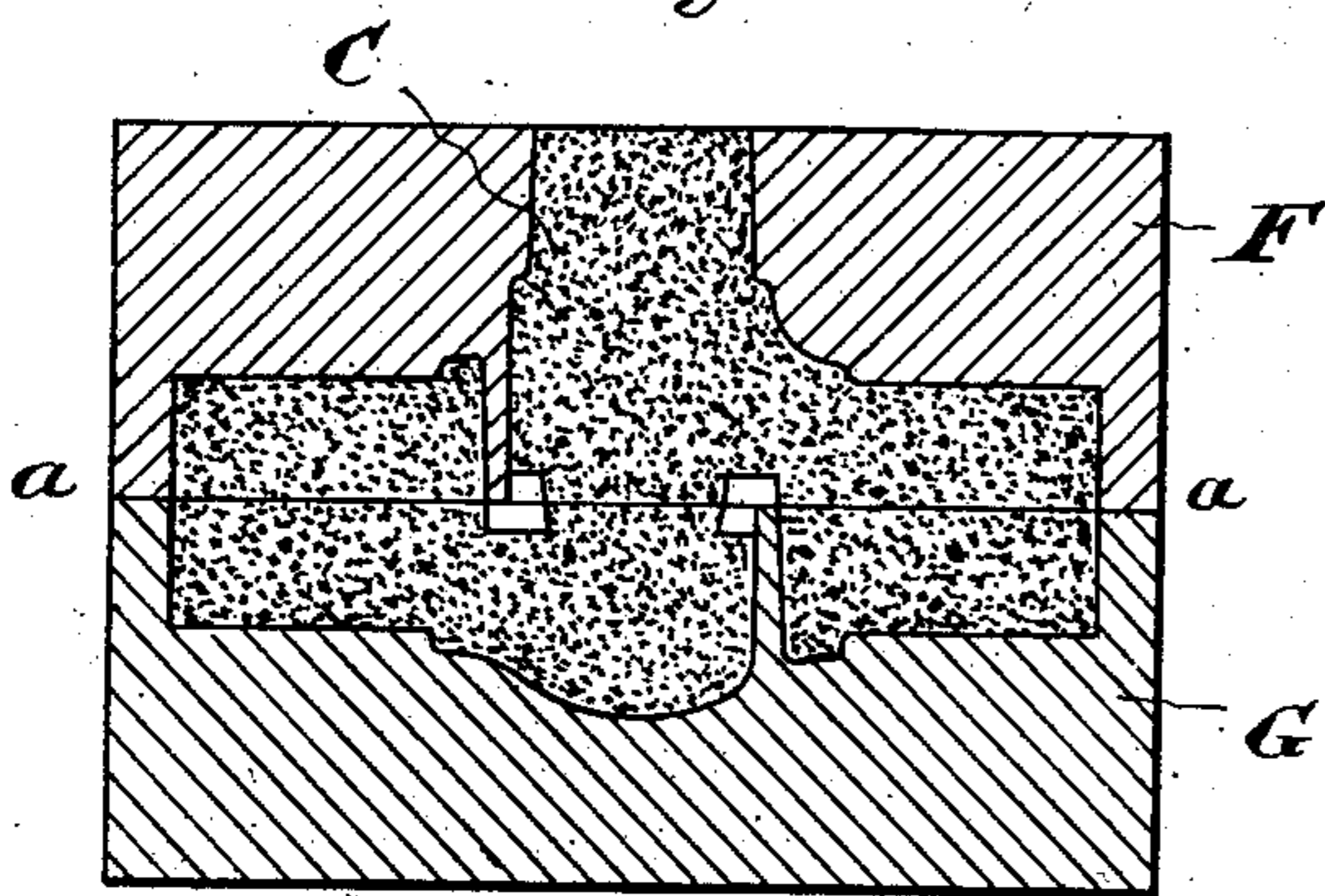


Fig. 5

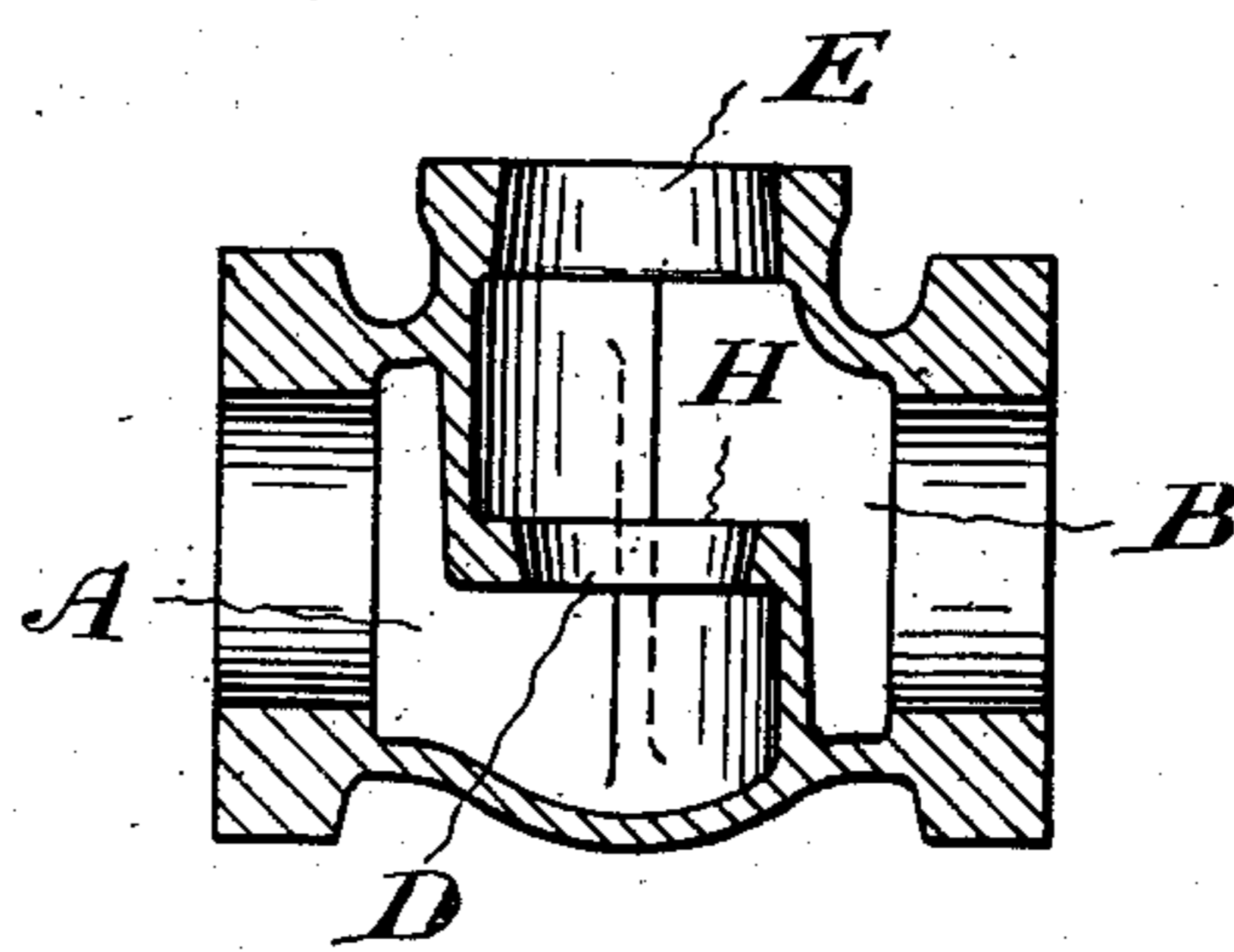


Fig. 7

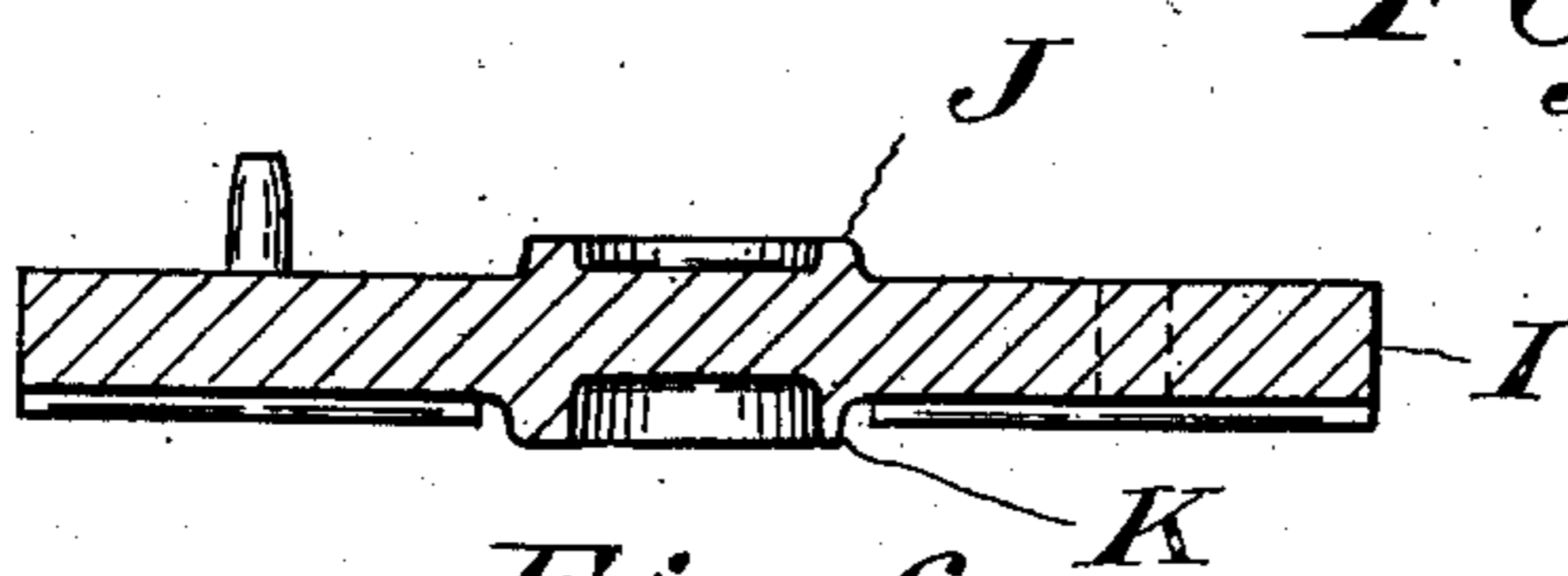


Fig. 6 K

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THOMAS HAWTHORNE, OF LONDON, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF TO
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CORE-BOX FOR FORMING GLOBE-VALVE CORES.

973,504.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed June 13, 1910. Serial No. 566,648.

To all whom it may concern:

Be it known that I, THOMAS HAWTHORNE, of the city of London, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Core-Boxes for Forming Globe-Valve Cores, of which the following is a specification.

The object of my invention is to produce a core for globe valves and the like which will produce a good form of valve, which will when in use be substantially a one piece core and which therefore will not be liable to sag in the mold.

I attain my object by a special construction of core and by the use of a special core box and method of molding the core substantially as hereinafter more specifically described and then definitely claimed.

Figures 1 and 2 are plan views of the two halves of the core box. Figs. 3 and 4 are plan views of the cover. Fig. 5 is a vertical section showing a completed core in position between the halves of the core box. Fig. 6 is a longitudinal section of the cover. Fig. 7 is a vertical section of a valve cast with the use of the improved core.

In the drawings like letters of reference indicate corresponding parts in the different figures.

Referring to Fig. 7 it will be seen that the valve produced by the use of my improved core does not differ in material respects from the shape ordinarily employed. The waterways A and B, however, are semi-annular in form in the body of the valve, and as the core is divided longitudinally, as will hereinafter appear, the walls of the central partition must be shaped to permit of the ready withdrawal of the parts of the core from the core box.

Referring particularly to Fig. 5 the construction of the core C will be seen. Longitudinally the core is divided along the line *a a*. Each half is shaped to form part of each waterway A and B and part of the valve opening D. The upper half of the core is also shaped to provide the opening E for the valve bonnet.

The core is molded as follows—A core box is formed in two parts F and G. The lower part G is shaped to form the lower part of

the core and the part F the upper part of the core. To form the valve seat H the cover I is provided at opposite sides with the projection J adapted to form the space left in the core for the upper part of the valve seat and with the projection K shaped to form the space in the core for the lower part of the valve seat. The parts of the core box are suitably filled and rammed and the covers applied thereto to form each part of the core complete. Suitable cement material is applied to the exposed surfaces and the two parts of the core box are brought together, as shown in Fig. 5. The core is then complete and may be removed from the core box and suitably dried. The ends of the core are left sufficiently long, of course, to fit the prints in the mold arranged for its support in the ordinary manner. By this method of procedure I produce a core, which when in use is substantially a one piece core though constructed in parts, and which will satisfactorily hold up in the mold in the process of casting the valves.

Of course, various changes may be made in the shape of the core to produce changes in the shape of the waterways and openings and in the shape of the valve seat, which would fall within the scope of my invention.

What I claim as my invention is:—

1. A core box for forming globe valve cores formed in two parts divided longitudinally of the valve through the valve opening and a cover for each half of the box shaped to form in the core the space for the metal of the valve seat.

2. A core box for forming globe valve cores, formed in two parts divided longitudinally of the valve through the valve opening and a combined cover for the halves of the box, having one side shaped to form in the core, part of the space for the metal of the valve seat and the other side shaped to form the remainder of said space.

London, Ontario, this 2nd day of June 1910.

THOMAS HAWTHORNE.

Signed in the presence of—

W. HAWTHORNE,
R. E. WALKER.