

No. 687,832.

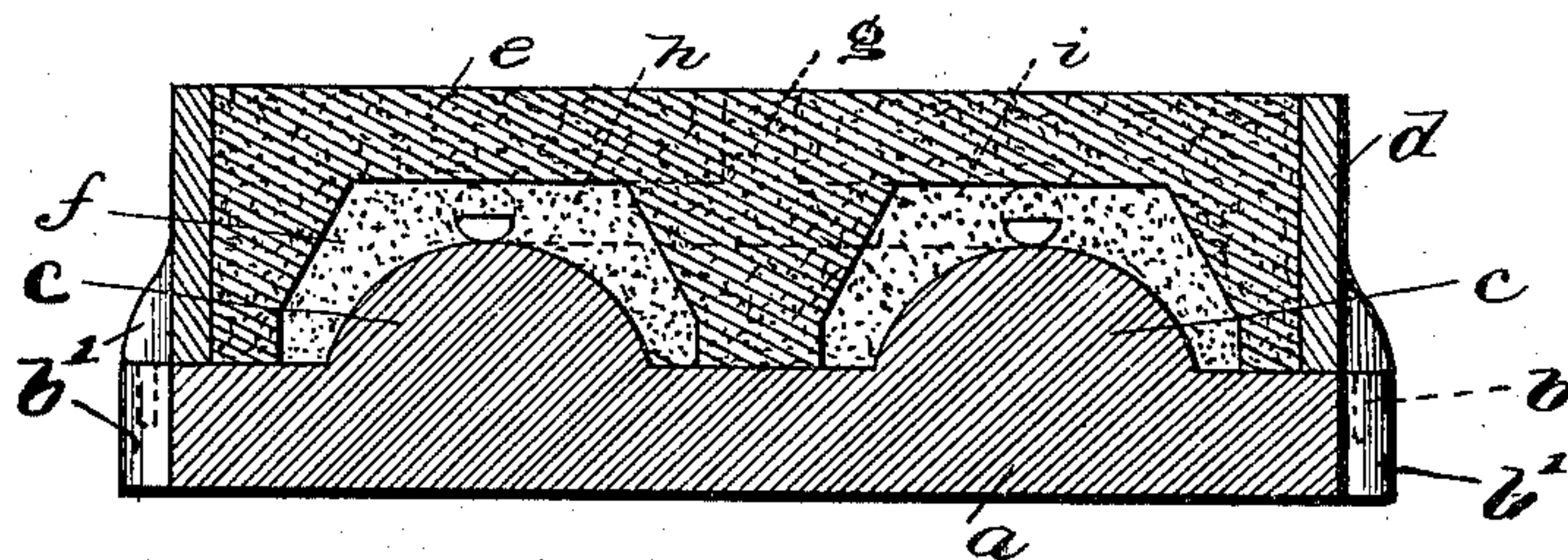
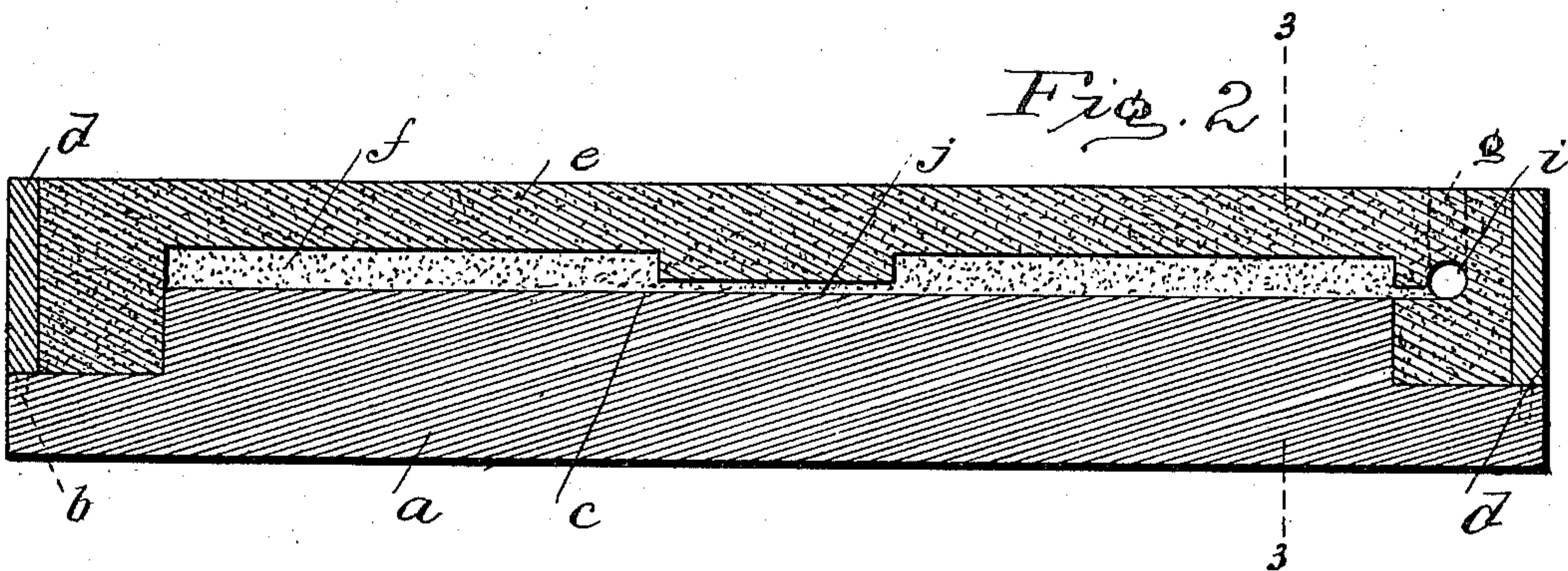
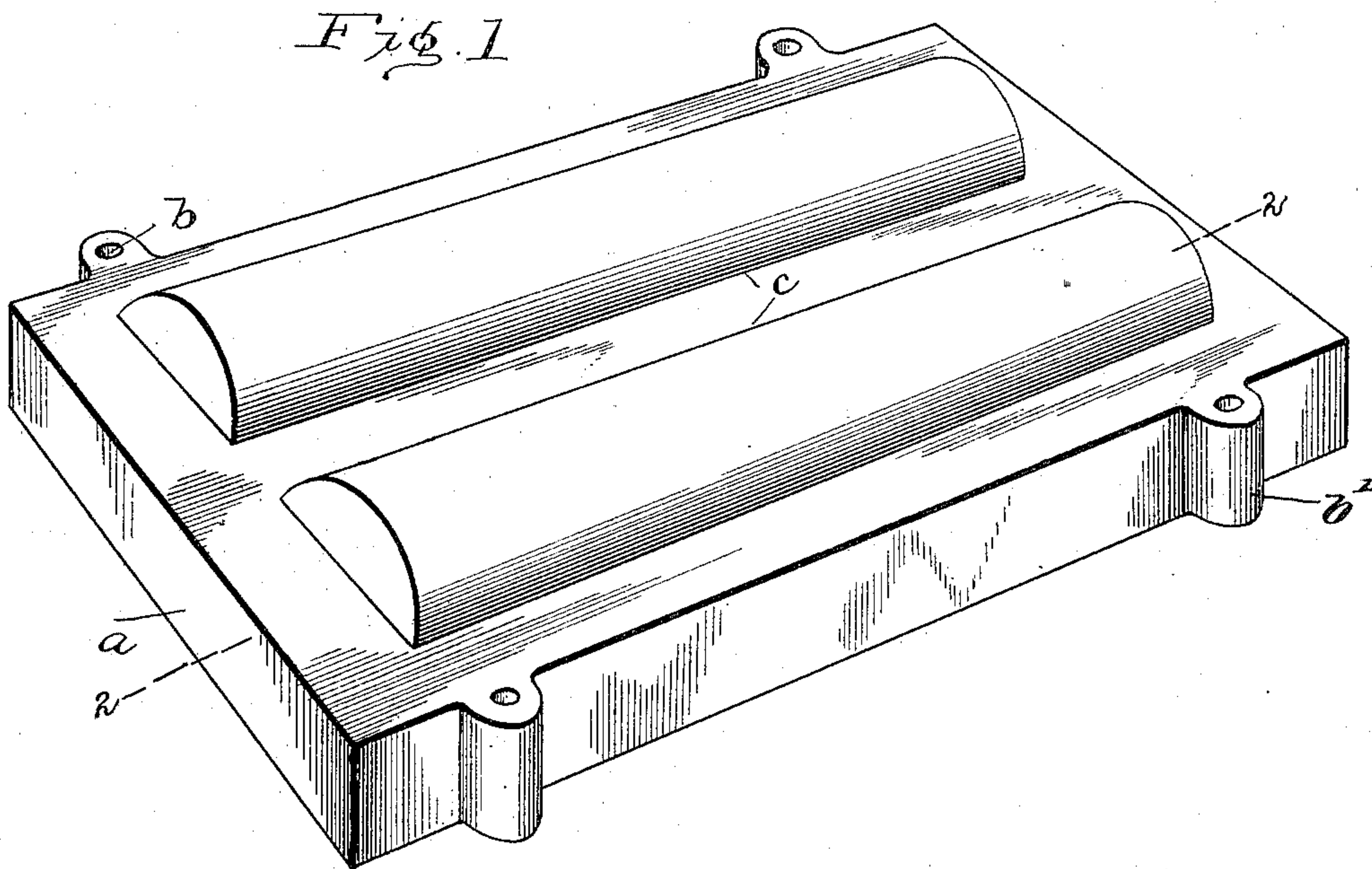
Patented Dec. 3, 1901.

G. H. CLAMER.

MOLD FOR CASTING JOURNAL BRASSES.

(Application filed Nov. 7, 1900.)

(No Model.)



Witnesses
Wm. Jackson
R. M. Kilgus

Inventor
William S. Clamer

By
Augustus B. Strong
Attorney

UNITED STATES PATENT OFFICE.

GUILLIAM H. CLAMER, OF PHILADELPHIA, PENNSYLVANIA.

MOLD FOR CASTING JOURNAL-BRASSES.

SPECIFICATION forming part of Letters Patent No. 687,832, dated December 3, 1901.

Application filed November 7, 1900. Serial No. 35,758. (No model.)

To all whom it may concern:

Be it known that I, GUILLIAM H. CLAMER, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Mold for Casting Journal-Brasses, of which the following is a specification.

The object of the invention is to provide for the economical and better production of brasses or bearings such as are used in railway service and to make the grain of the metal of the brasses or bearings closer and finer and more uniform, whereby they wear longer and do not heat.

To these and other ends hereinafter set forth the invention comprises the improvements hereinafter described and claimed.

The nature, characteristic features, and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a perspective view illustrating the drag or lower portion of the two-part flask or mold. Fig. 2 is a sectional view taken on the line 2 2 of Fig. 1, showing the cope or case and the drag assembled along with the sand; and Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 2.

In the drawings the drag *a* consists of metal, as iron, and it is provided with means—for example, as shown at *b*—for alining it with the cope or case. As shown, these means comprise ears *b'* on both drag and top, which are fitted coöperative with dowel pins and holes. The drag *a* is also provided with projections *c* or cores, which conform in curvature to the axle or axles with which the finished brasses or bearings are intended to coöperate, so that these cores are of the form of parts of cylinders, and they are, like the drag *a*, of metal.

d is the cope or case, and it contains sand *e*, within which is molded, by means of a suitable pattern, the half of the matrix *f* which conforms to the back of the finished bearing or brass. The other part of the matrix is bounded by the core *c* and by a part of the face of the drag. The journal-faces of bearings conform to comparatively few standards, so that it is necessary to provide compara-

tively few drags having cores *c* of appropriate size. However, the forms of the backs of bearings are very numerous, and since the backs of the bearings are formed in the sand it follows that by the use of appropriate patterns they may be changed and produced in any required number of forms. Moreover, the provision of the described drag and its cores abbreviates materially the time that would be required to prepare the cores in sand. It will be understood that suitable gates and channels are provided for introducing the molten metal into the matrices. These are, for convenience, shown as formed in the sand.

g is the gate, which communicates with two channels *h* and *i*. Each of these channels leads to one of the matrices formed upon one of the cores *c*, and from this matrix there is a channel *j*, which leads to the other matrix, which is formed on the same core.

As shown, two brasses are cast on each core; but the number may obviously be increased and diminished.

A journal bearing or brass cast in the mold described is better than one cast wholly in sand, because the grain of its metal is closer and finer and more uniform, which qualities increase its durability and render it unliable to overheating. The sand, which is contained in the cope or case *d*, not only is susceptible of convenient molding for the production of bearing-backs of various shapes, but also affords means for the escape of gas, which must occur in order to produce satisfactory castings.

It will be obvious to those skilled in the art to which my invention appertains that modifications may be made in details without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set forth and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A mold for casting journal-brasses, comprising a base block or drag having spaced semicylindrical metal cores *c*, a cope fitted to said drag and containing sand, the intercommunicating matrices *f*, formed in the sand,

one at either end of each of said cores, and suitable inlet-gates for controlling the flow of molten metal to the matrices, substantially as specified.

- 5 2. A mold for casting journal-brasses, comprising a base block or drag having semicylindrical metal projections or cores, a cope fitted to said drag and containing sand, matrices formed one at either end of each of said
10 cores, a common inlet-passage communicat-

ing with one matrix of each core, and passages connecting the matrices in pairs, substantially as described.

In testimony whereof I have hereunto signed my name.

GUILLIAM H. CLAMER.

In presence of—

R. M. GILLIGAN,

W. J. JACKSON.