

(No Model.)

F. TYERS & O. BARNSDALE.
MOLD FOR MAKING PLUMBERS' JOINTS.

No. 504,005.

Patented Aug. 29, 1893.

Fig. 1.

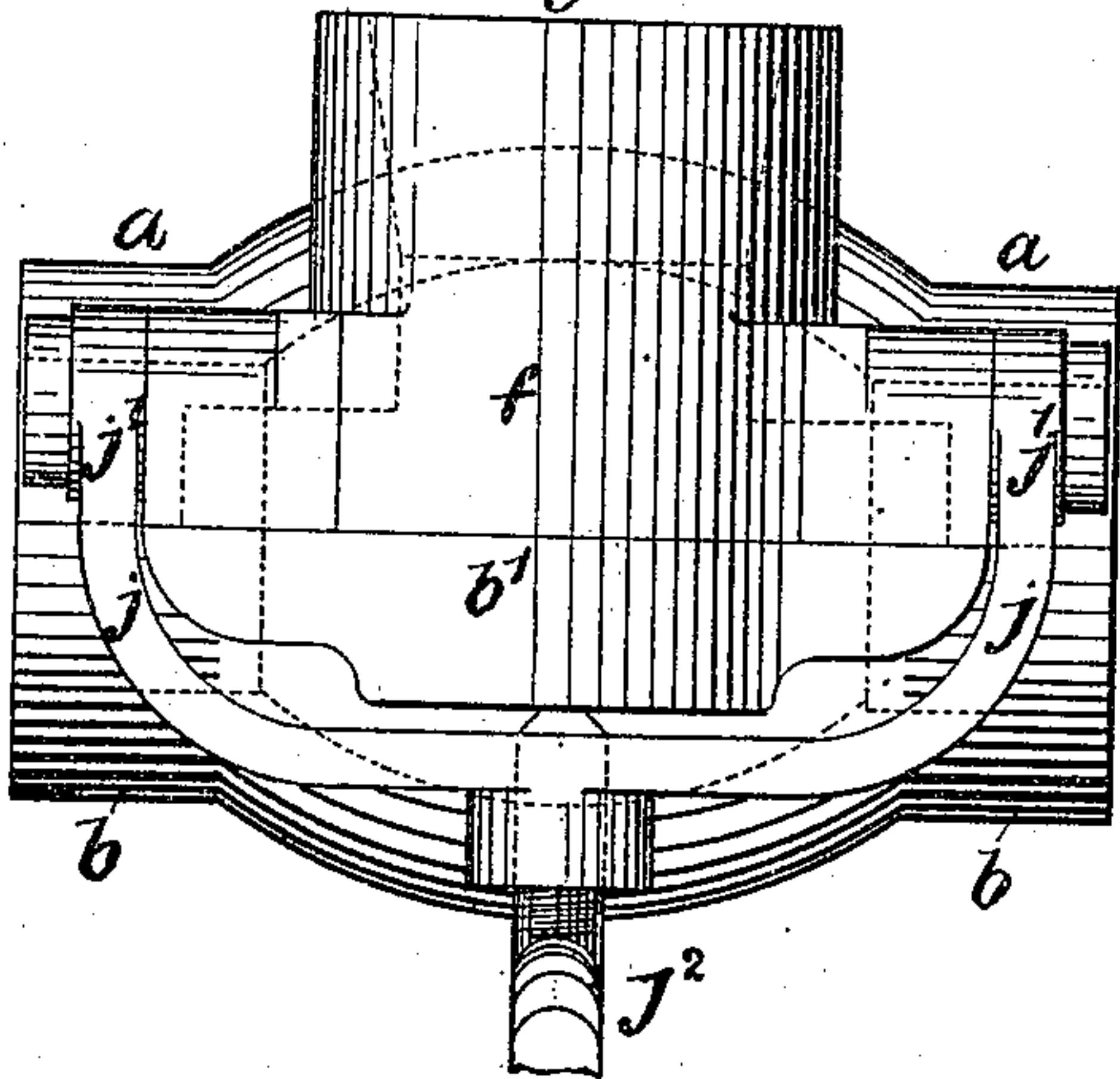


Fig. 2.

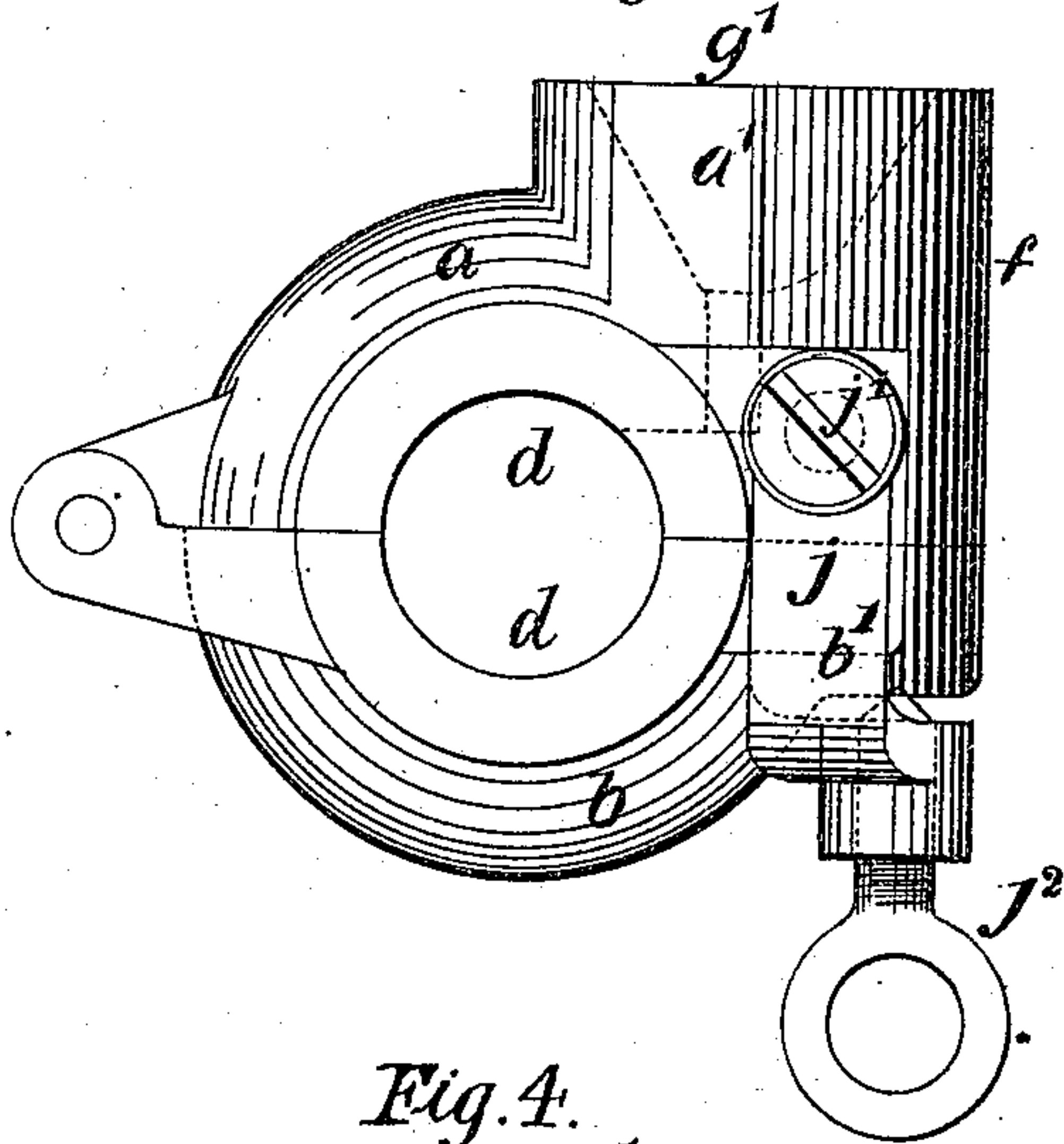


Fig. 3.

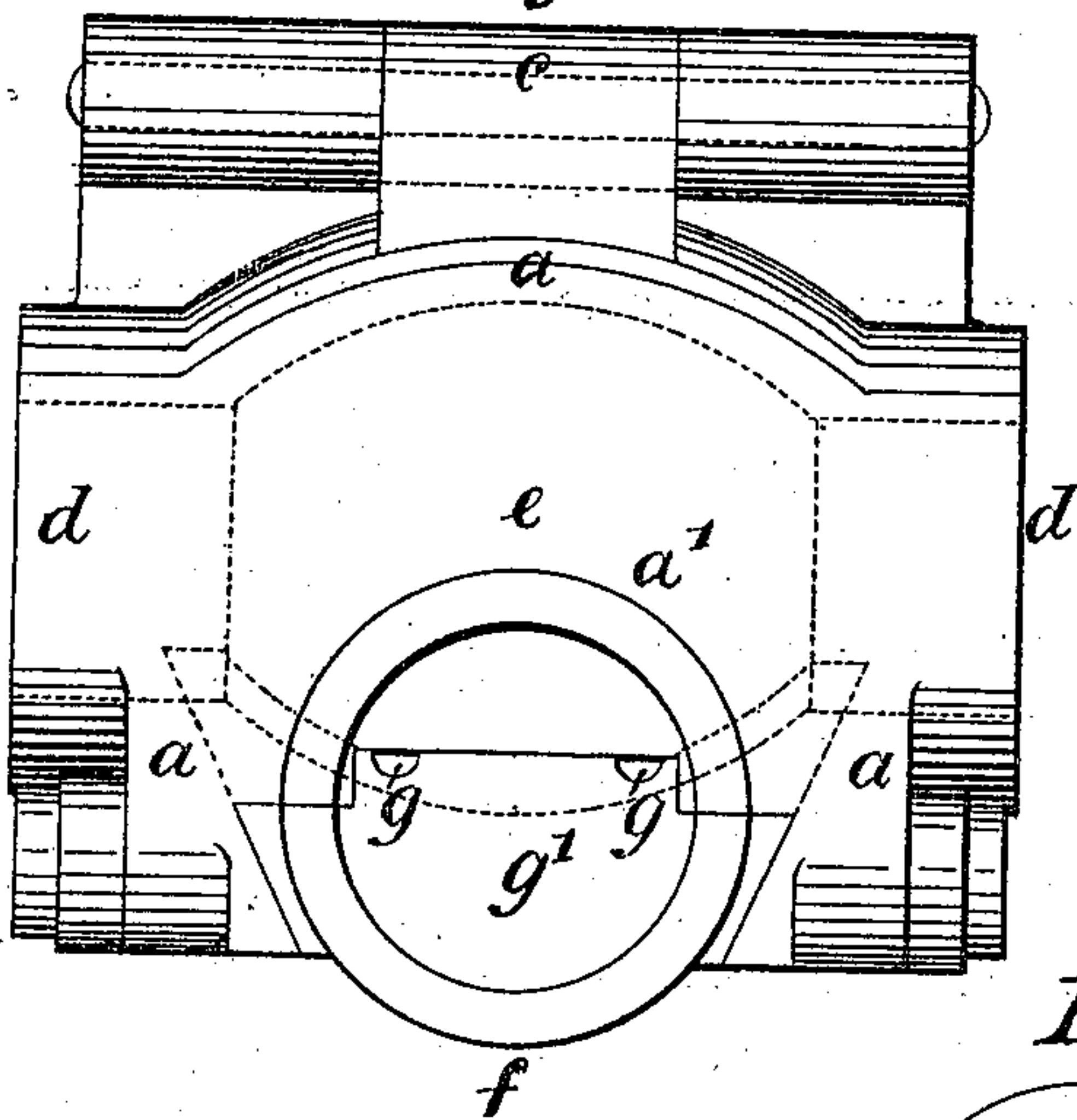


Fig. 4.

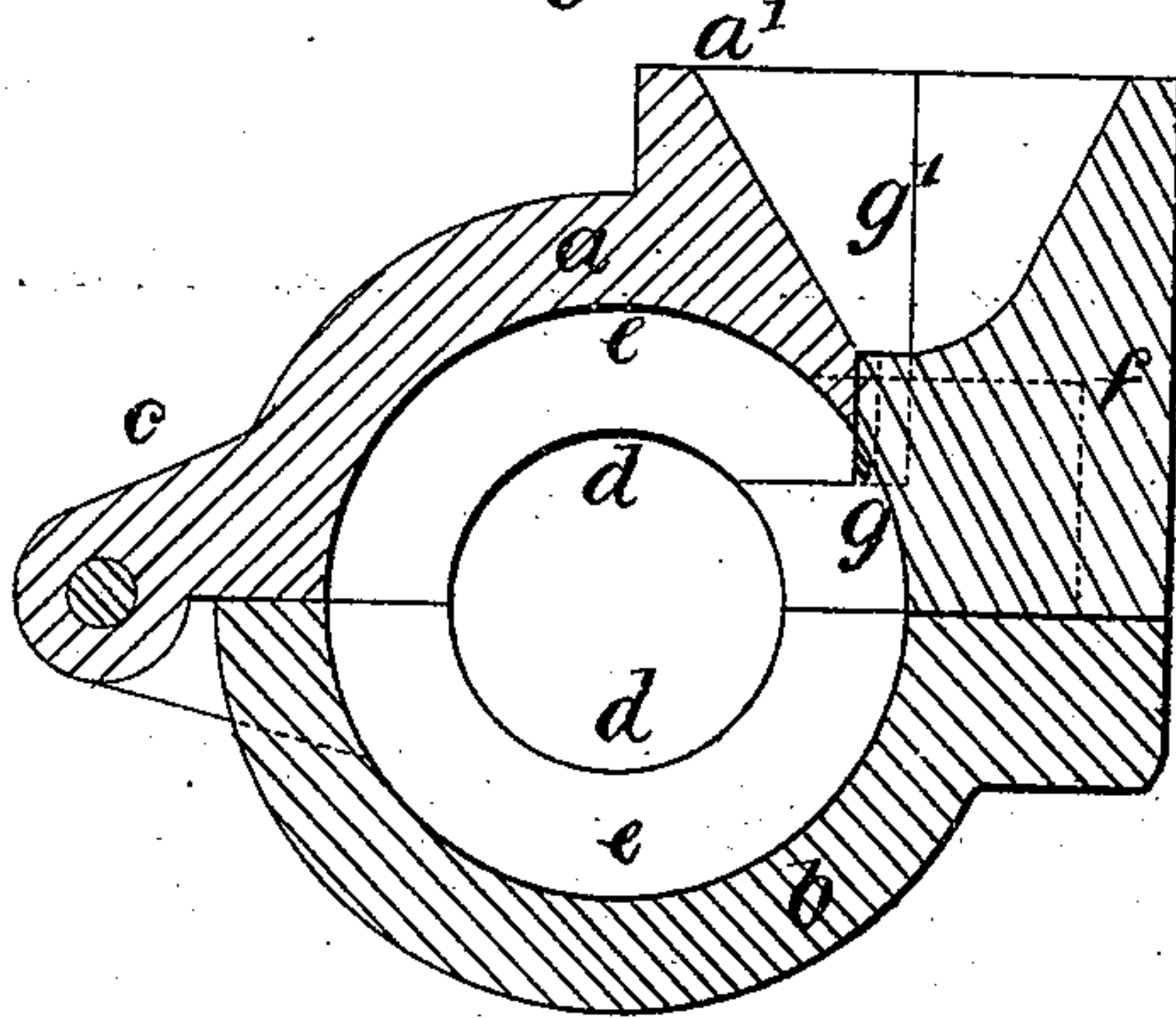
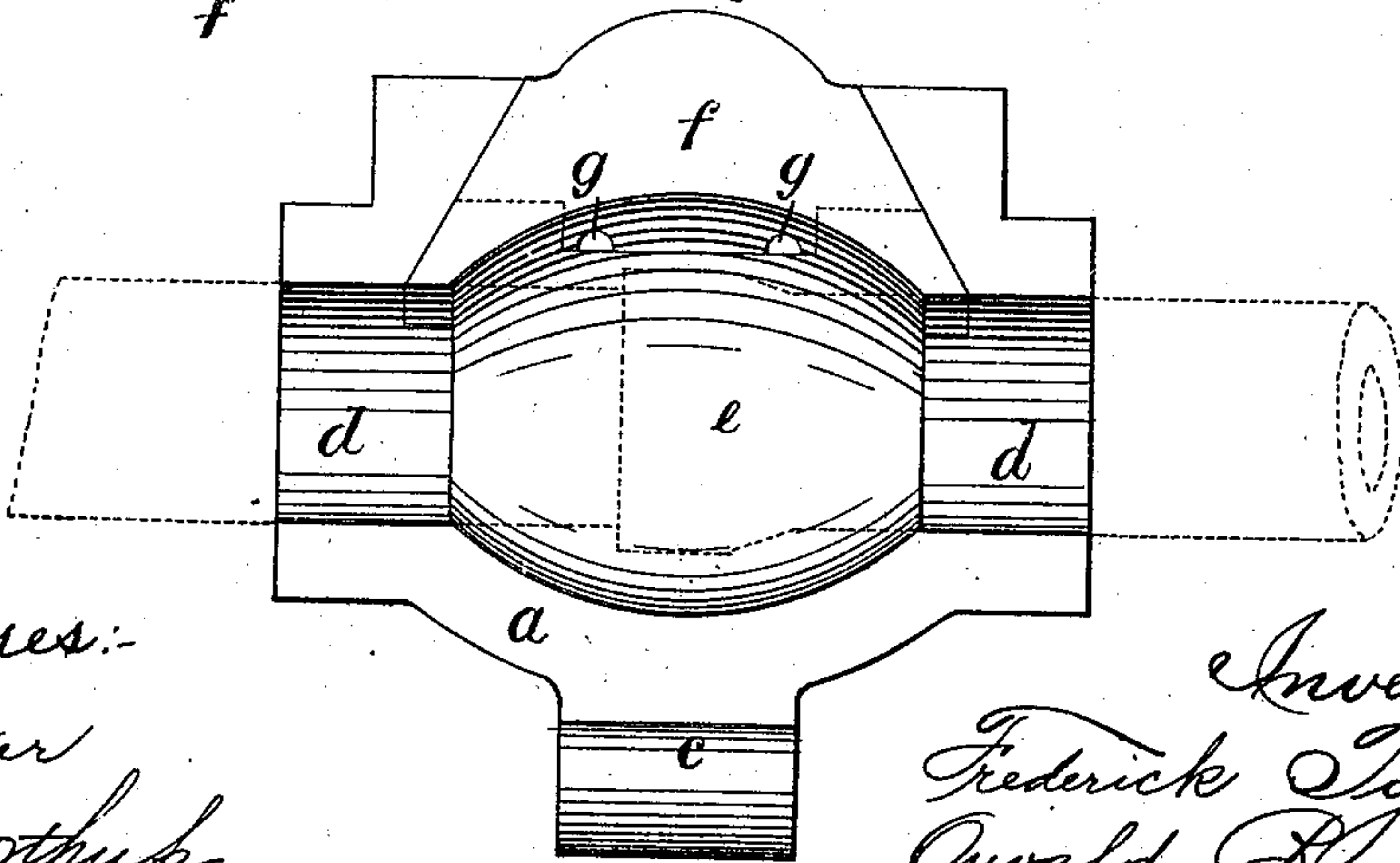


Fig. 5.



Witnesses:

H. Boulter

C. Northup

Inventors:

Frederick Tyers

Oswald Barnsdale

by their attorney J. M. C. Boulter

UNITED STATES PATENT OFFICE.

FREDERICK TYERS AND OSWALD BARNSDALE, OF NOTTINGHAM, ENGLAND.

MOLD FOR MAKING PLUMBERS' JOINTS.

SPECIFICATION forming part of Letters Patent No. 504,005, dated August 29, 1893.

Application filed January 16, 1892. Serial No. 418,352. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK TYERS and OSWALD BARNSDALE, both subjects of the Queen of England, residing at Nottingham, England, have invented certain new and useful Improvements in Molds for Making Plumbers' Joints, of which the following is a specification.

This invention relates to the making of what are known as plumbers' joints generally for connecting lead or composite piping or fitting thereto. It will be best understood by reference to the accompanying drawings in which—

Figure 1 is a front elevation of a mold for making a straight joint. Fig. 2 is a side or end elevation. Fig. 3 is a plan. Fig. 4 is a vertical cross section taken centrally through the mold, and Fig. 5 is a view of the interior of the upper part of the mold.

Like letters indicate like parts throughout the drawings.

In carrying out this invention the ends of the piping or the piping and fitting to be connected are prepared and tinned in the usual manner and are held in position by a mold of special construction fitting on the piping formed with an enlarged recess corresponding to the size it is desired to make the joint. Molten metal is then poured into the mold so as to fill the enlargement which metal when set is securely attached to the piping or piping and fitting after which the mold may be removed. The mold is preferably formed by an upper part *a* and lower part *b* hinged together at *c* in the inner surface of which are corresponding semi-circular recesses *d* formed to fit on the piping or piping and fitting and a central enlarged recess *e* preferably concentric with the recesses *d* and in plan corresponding to the shape and size of the joint required. The upper part *a* of the mold is formed with a detachable part *f* fitting from the inner side into a dovetailed recess in the main part so as to be retained when the mold is closed on the inner surface of which part *f* or the main part *a* or both, are formed one or more runners *g* which are placed in such a position that the molten metal will not run on the piping, through which, if it did, it would pass, but will miss it and when the mold is empty flow into the bottom of the enlargement.

In the upper portions of the detachable

part *f* and upward extension *a'* of the part *a* is formed a cup or box *g'* in connection with or continuous with the runners *g* and into which the metal may be poured and simultaneously fed to both runners.

By employing a detachable part *f* the inner surface of which meets the main part *a* at the point where the runners are placed so as to divide at that part, and leave the runners, the mold may be removed without difficulty when the metal is set and the runners afterward cut off.

Instead of a mixture of tin and lead as used in the usual process pure lead may be employed and consequently the joint will not be liable to sweat.

To make a joint on a pipe in a vertical position a bend may be fitted on the cup or box *g'* which feeds the runners *g* the bend being placed parallel with the piping and the metal poured in.

We claim—

1. The herein described mold for making plumbers' joints, comprising the parts *a* and *b*, hinged together, corresponding semi-circular recesses *d*, formed in said parts, enlarged recesses *e*, also formed in said parts, a dovetailed recess formed in the part *a*, a part *f*, fitting detachably in said recess, the inner surface of said part *f*, corresponding to that of the part *a*, and runners communicating with the recesses *e*, as and for the purpose set forth.

2. The herein described mold for making plumbers' joints, comprising the parts *a* and *b*, hinged together, corresponding semi-circular recesses *d*, formed in said parts, enlarged recesses *e*, also formed in said parts, a dovetailed recess formed in the part *a*, a part *f*, fitting detachably in said recess, the inner surface of said part *f*, corresponding to that of the part *a*, runners communicating with the recesses *e*, and an upward extension on each of the parts *a* and *f*, forming a cup *g'*, in communication with the runners, as and for the purpose specified.

In witness whereof we have hereto set our hands in the presence of the two subscribing witnesses.

FREDERICK TYERS.
OSWALD BARNSDALE.

Witnesses:

H. C. SHELDON,
A. A. DICKINSON.