

(Model.)

J. KIRBY.
BUNG.

No. 268,026.

Patented Nov. 28, 1882.

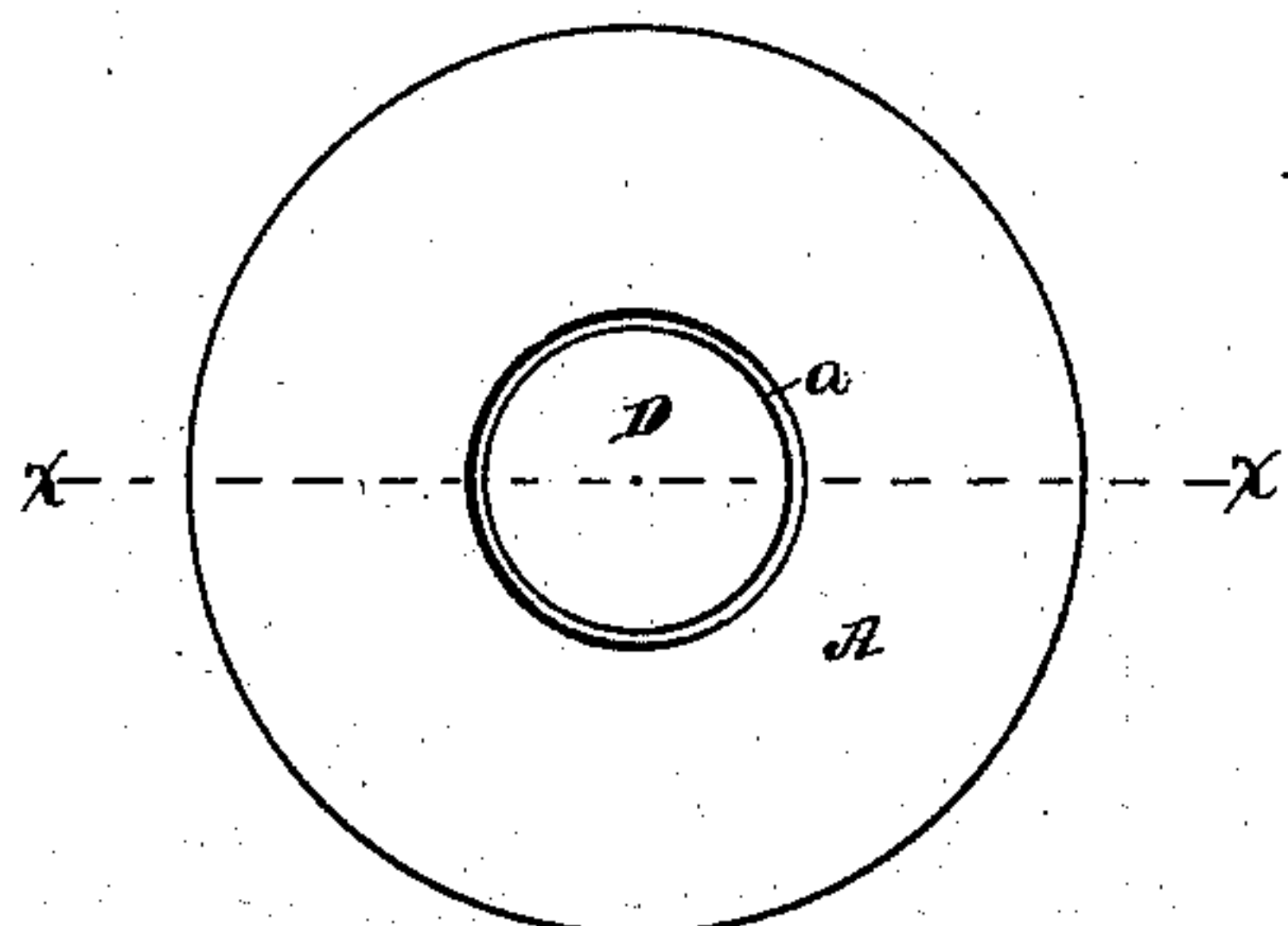


Fig. 1.

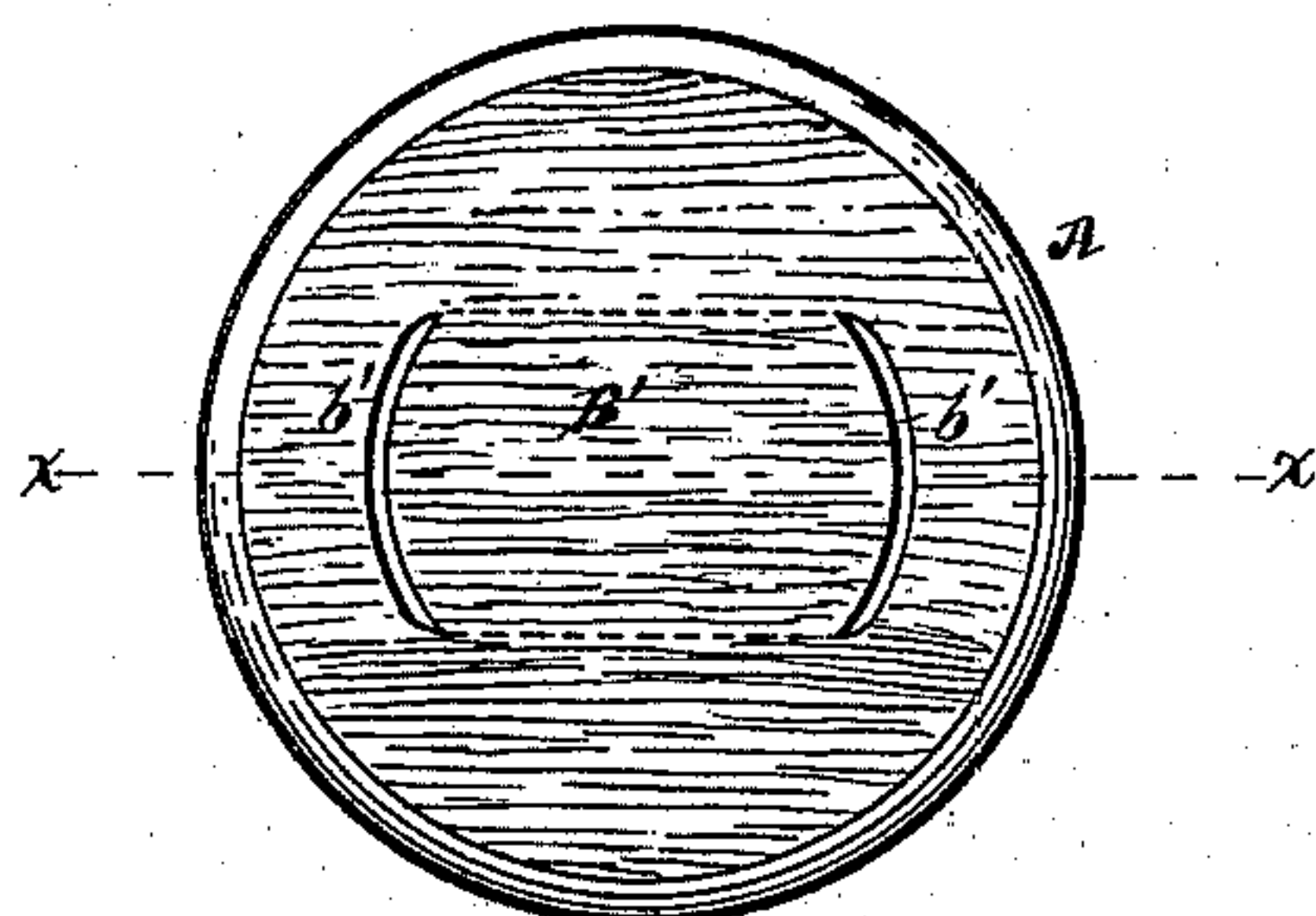


Fig. 2.

Fig. 3.

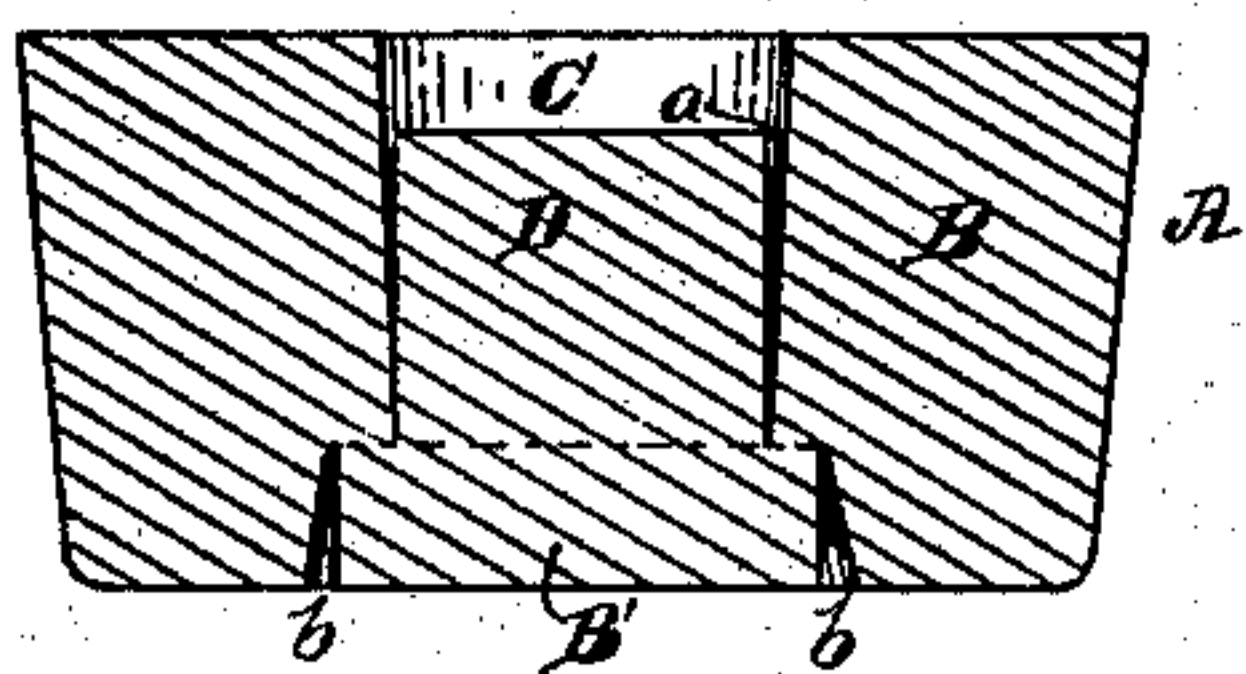


Fig. 4.

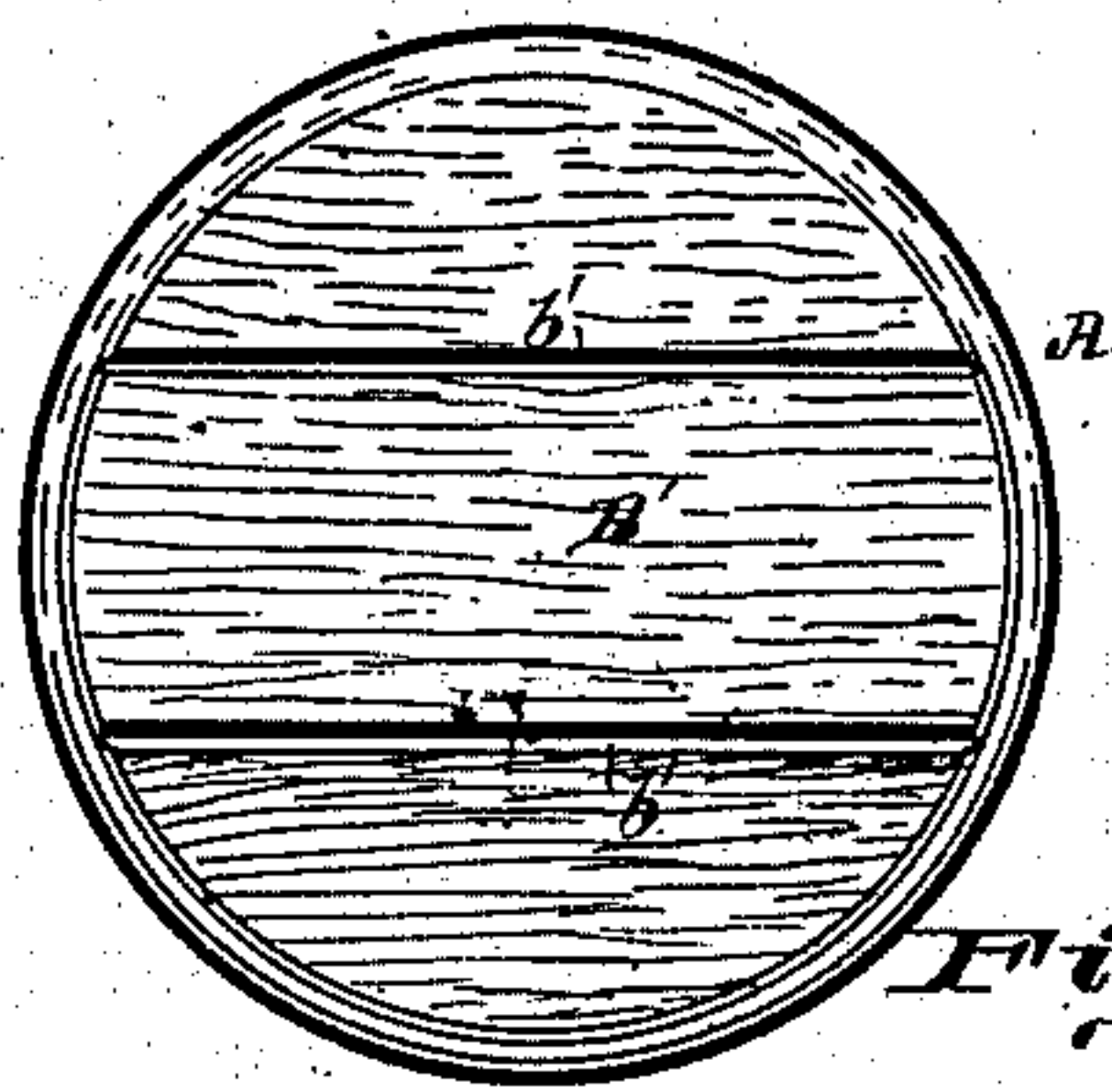
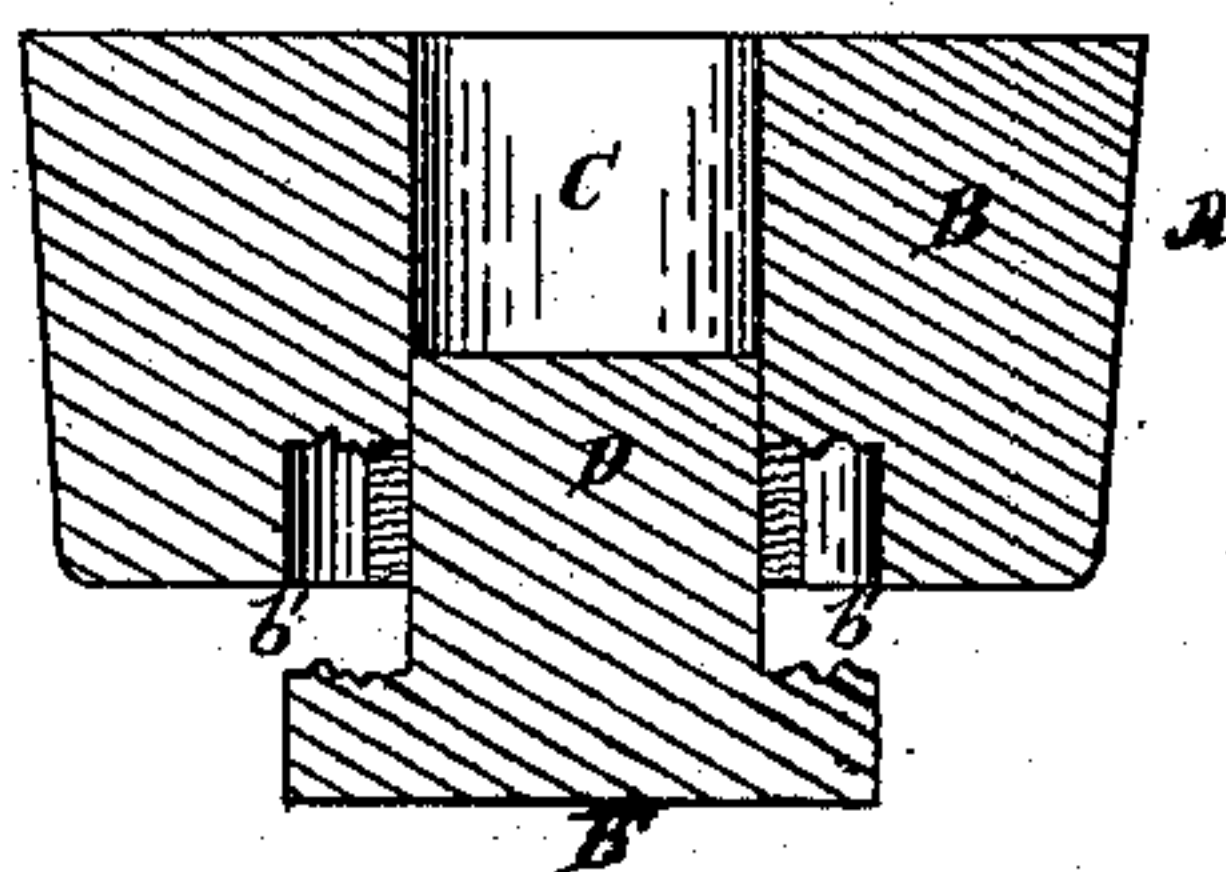


Fig. 5.

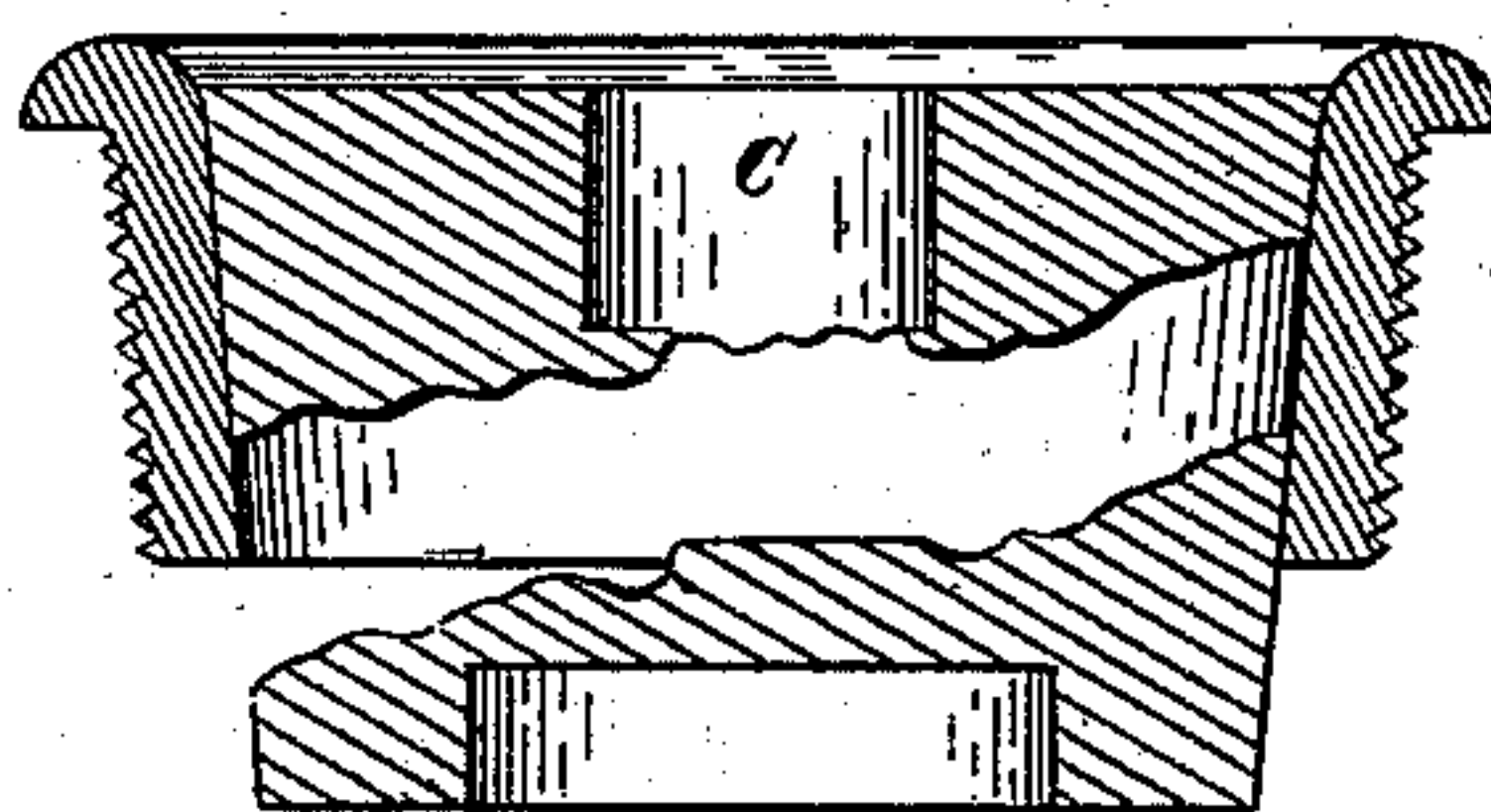


Fig. 6.

Attest:

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JOSIAH KIRBY, OF CINCINNATI, OHIO.

BUNG.

SPECIFICATION forming part of Letters Patent No. 268,026, dated November 28, 1882.

Application filed September 2, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSIAH KIRBY, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Bungs, of which the following is a specification.

My invention relates to that class of bungs in connection with which a ventilator or plug is to be used; and its object is to form and construct the bung so that a portion of the bung may be driven into the cask by the vent-plug without danger of splitting off the bottom of the bung, leaving the periphery of the bung, which remains in the bung-hole, perfect for its entire thickness.

Referring to the drawings forming part of this specification, Figure 1 represents the top face of the bung; Fig. 2, the bottom face; Fig. 3, a diametrical section taken at the lines *xx* of Figs. 1 and 2; Fig. 4, a diametrical section showing the central portion of the bung partly driven out. Fig. 5 represents the lower face of a bung, illustrating a modification of my invention; and Fig. 6 represents one of the various styles of bung now in use, illustrating the defect of these bungs, which is overcome by my invention.

A is the bung, which is cut from wood, the grain of which runs parallel to the faces of the bung.

The upper part of the bung may be provided with the usual recess or incision, C, formed in any of the known ways, and where, as is sometimes the case, this recess is wanting, or is not sufficiently deep to accomplish, in connection with the incisions hereinafter described as made in the lower face of the bung, the purposes of my invention, I make a circular incision, *a*, extending preferably more than half-way through the bung, as shown in Fig.

3. In the opposite or bottom face of the bung are formed the two semicircular incisions *b*, the length of each of which is equal to or a little greater than the diameter of the circle formed by the incision *a* in the top face of the bung. The distance between these two incisions *b* is slightly greater than the diameter of the incision *a* in the top face. Each of the incisions *b* penetrates the bung such a distance that its bottom will be on a level with or extend a little beyond the bottom of the incision *a*. These incisions *b* are preferably so placed

that their length shall be transverse to the grain of the wood. The incisions in the lower face of the bung are formed by a sharp penetrating instrument, removing none of the wood, but simply cutting the fiber and displacing it, so that when the bung is in the cask the moisture causes the wood to swell back again to its original tightness, and thus close up the incisions so that no leakage is possible. As thus formed the bung consists of a body or peripheral portion, B, and a plug or central portion, B'.

When the vent-plug is to be driven into the bung its end is placed against the central plug, B', and by a blow of the hammer the plug B' is driven into the cask, carrying with it the portion of the bung between the two incisions *b*, and no more. The grain of the wood, being cut across by the incisions *b*, does not have to be broken across; but the wood is easily split between the bottom of the groove *a* and of the incisions *b*, and the sides of the lower end of the plug are split from the body at the places indicated by dotted lines in Fig. 2, and this plug being thus driven out, the body of the bung is left intact and perfect in the bung hole or bush. The plug driven out assumes the shape shown in Fig. 4.

Patents have been issued to myself and to others for bungs having incisions or recesses in one or both faces; but in all such bungs these incisions in both sides have been in the form of a continuous circle, and could not therefore be caused to penetrate the bung from either side far enough to leave no grain to be broken across without weakening the bung and rendering it liable to leak by jarring out the central plug in the process of driving the bung in the cask, and on this account a web of uncut wood is left, which has to be broken through in order to drive the vent-plug into the bung, and thus endanger the whole bottom of the bung.

Fig. 6 represents one form of bung which is now in use, showing how a large number of bungs are split in the attempt to drive the vent-plug into the bung before the web can be broken through, leaving only the top portion of the bung in the bung-hole of the cask; but in bungs constructed according to my invention it is impossible to split the bung in this manner, as there is no grain left to be broken across.

The recess C is sometimes made to give room for a plug, and the latter is substituted for the portion D, which is within the circular incision made in the upper part of the bung, and extending downward toward the lower or under part. When the bung is split, as shown in Fig. 6, the portion left in the bung-hole is often very thin, especially when grain is not parallel to the face of bung, and will not, therefore, afford a firm support for the vent-plug.

In the present instance I have described the semicircular incisions *b* as being placed transversely to the length of the grain; but as a modification of this I sometimes use two parallel incisions (see Fig. 5) placed at a distance apart equal to or a little greater than the diameter of the groove *a*, and running partly or entirely across the bottom face of the bung in a line parallel to the grain of the wood, so that when the plug B' is driven in the portion between these parallel incisions will be split from the bung, thus in a measure accomplishing the purpose of my invention, but not so perfectly as in the form shown in the drawings, as by this modification a small portion of the periphery of the bung is split off.

Having thus described my invention, what I claim as new and of my invention, and desire to secure by Letters Patent, is as follows:

1. A bung having a circular recess or incision in its top face and two incisions in its bottom face, said incisions penetrating the bung from opposite sides to one common plane, substantially as and for the purposes specified.

2. A bung having the circular recess or incision in its top face and the semicircular incisions *b* in its bottom face, said last-named incisions penetrating the bung as far as a plane on a level with the bottom of the recess *a*, substantially as and for the purposes specified.

3. A bung having the circular recess or incision in its top face and the semicircular incisions *b* in its bottom face, said last-named incisions being placed transversely to the length of the grain of the bung, said incisions penetrating the bung from opposite sides to one common plane, substantially as and for the purposes specified.

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