

(No Model.)

H. J. JONES.
BUNG AND BUSH.

No. 441,418.

Patented Nov. 25, 1890.

Fig. 1--

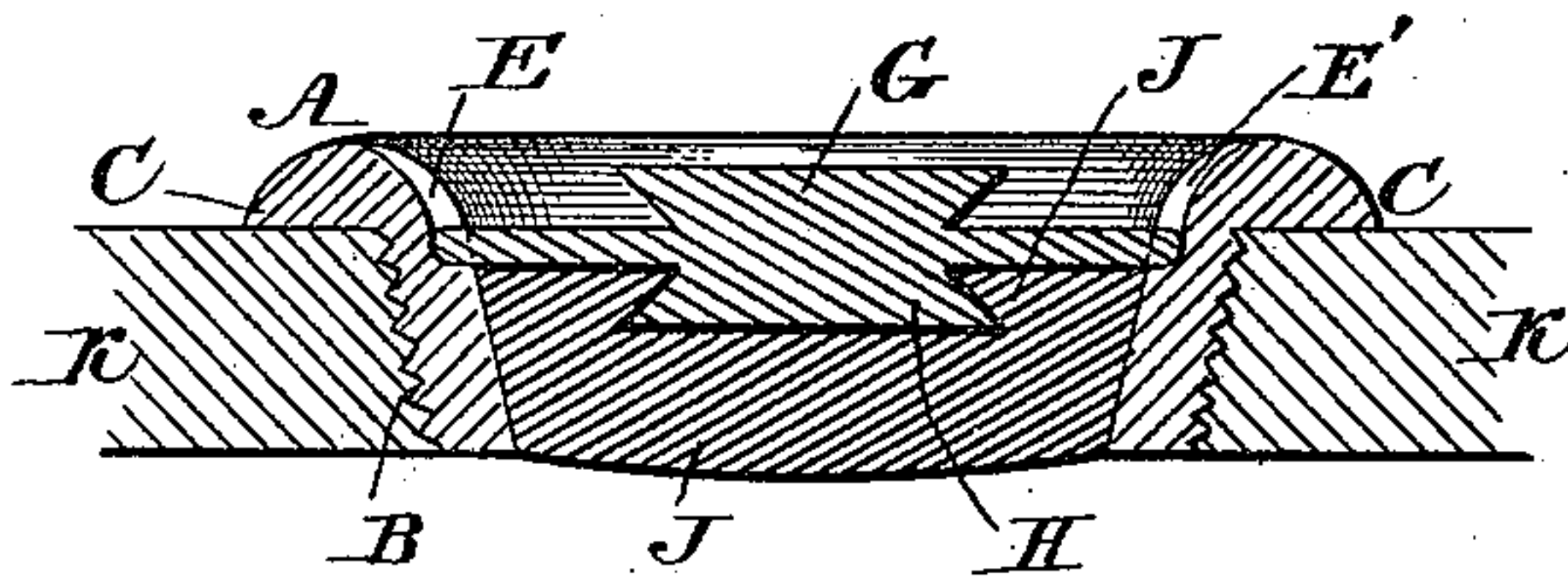


Fig. 2--

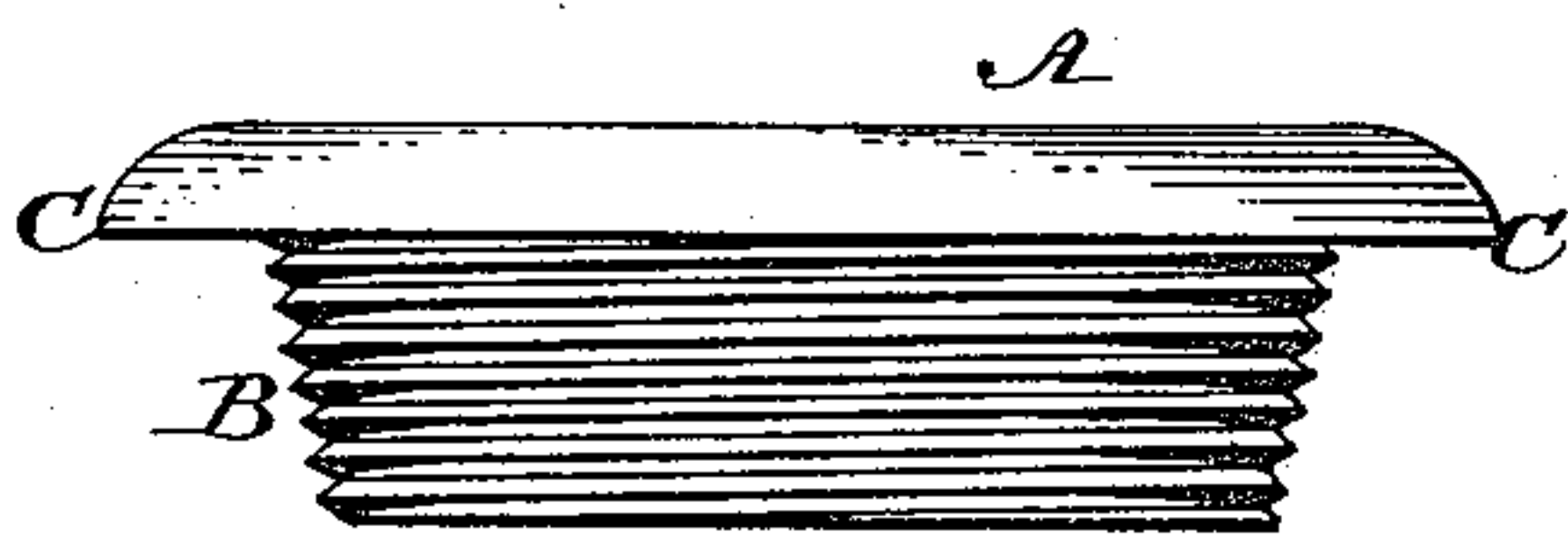


Fig. 4--

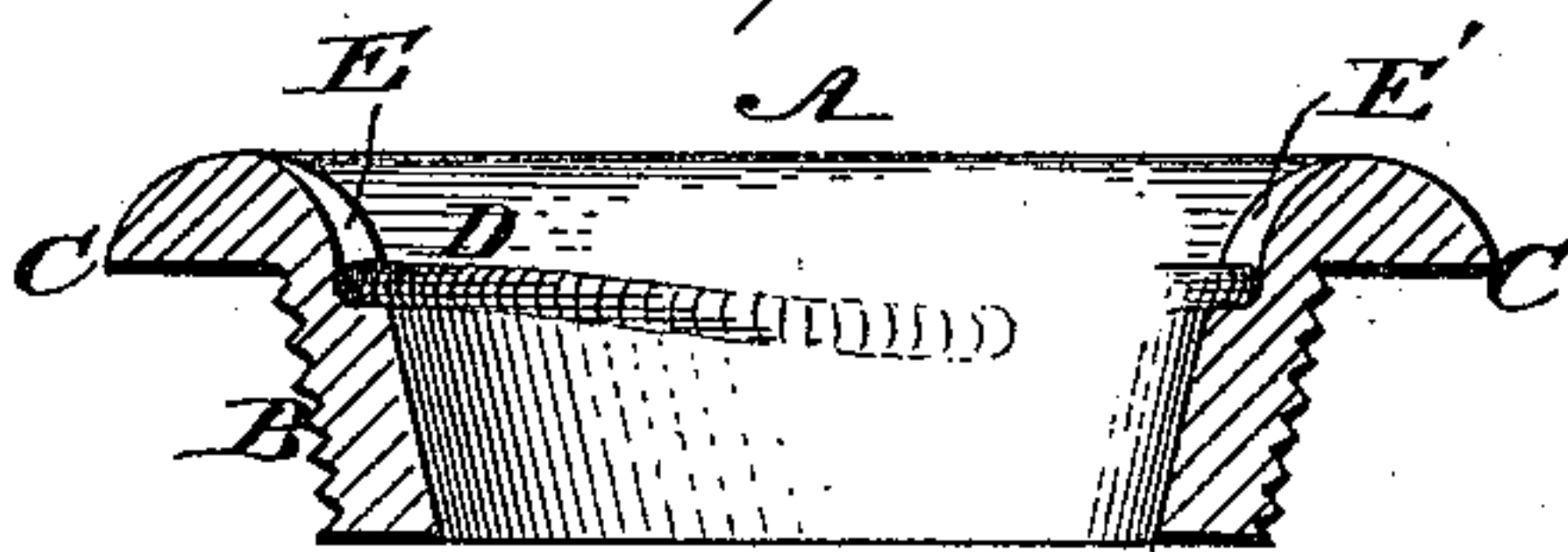


Fig. 5--

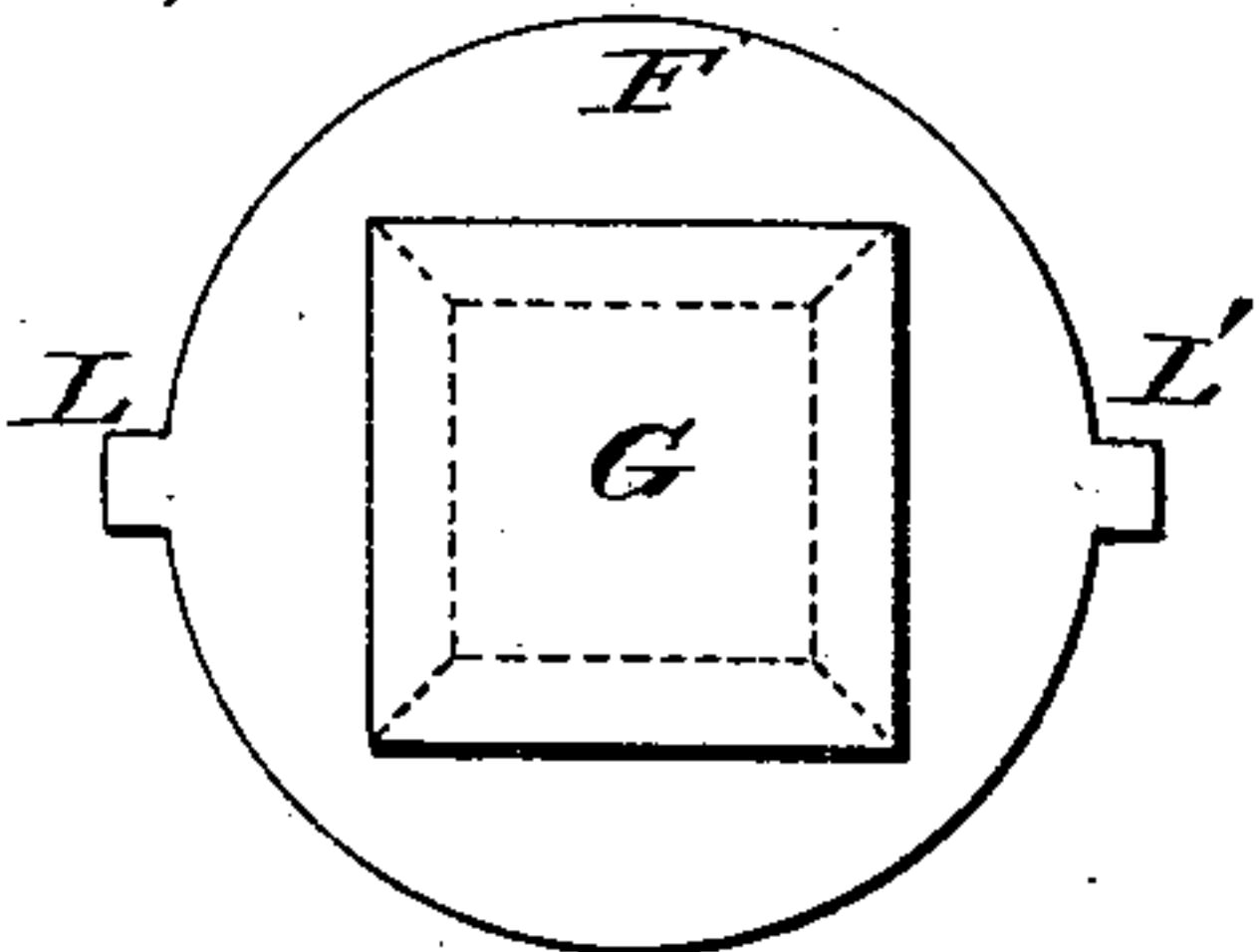


Fig. 3--

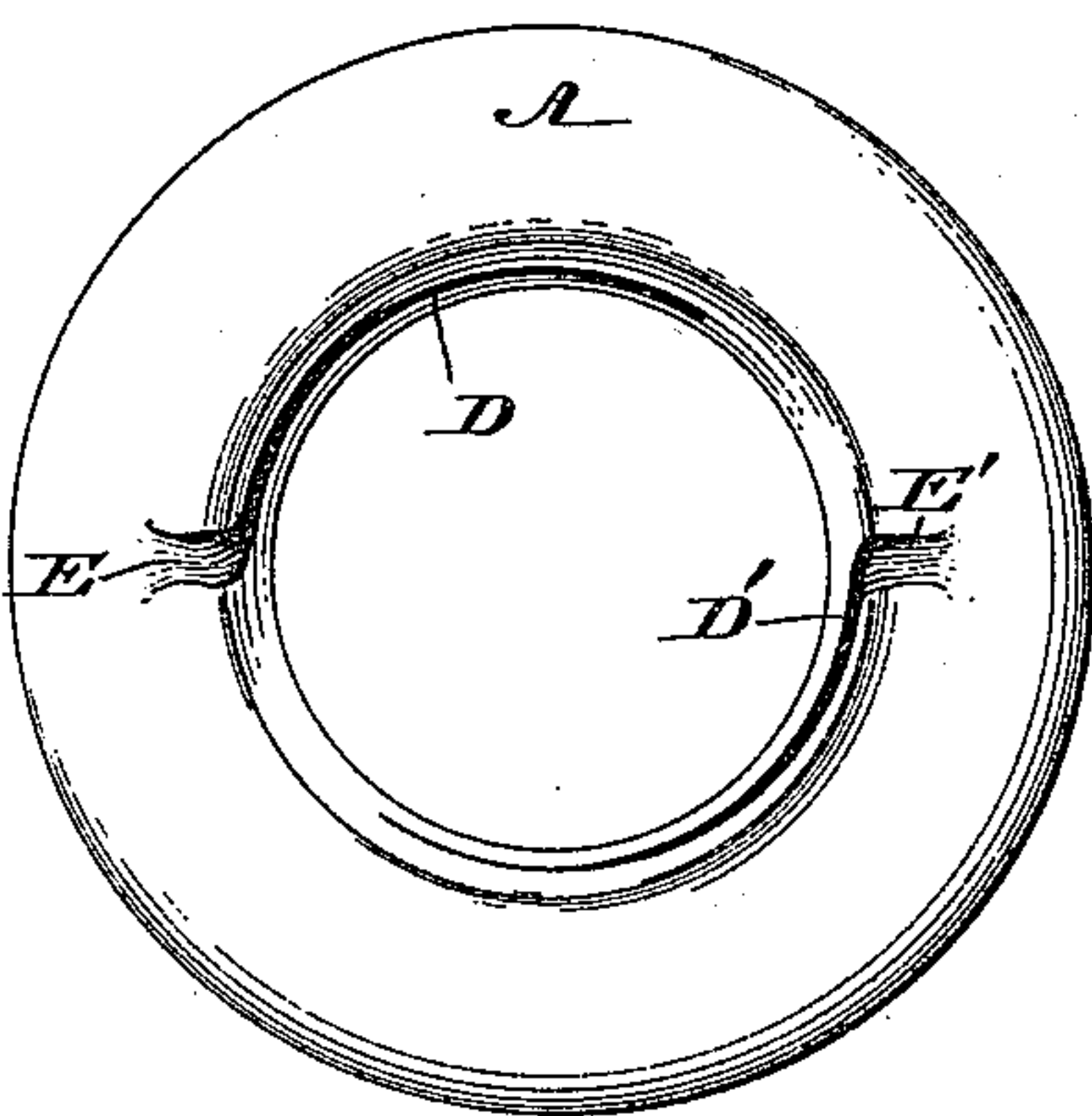


Fig. 6--

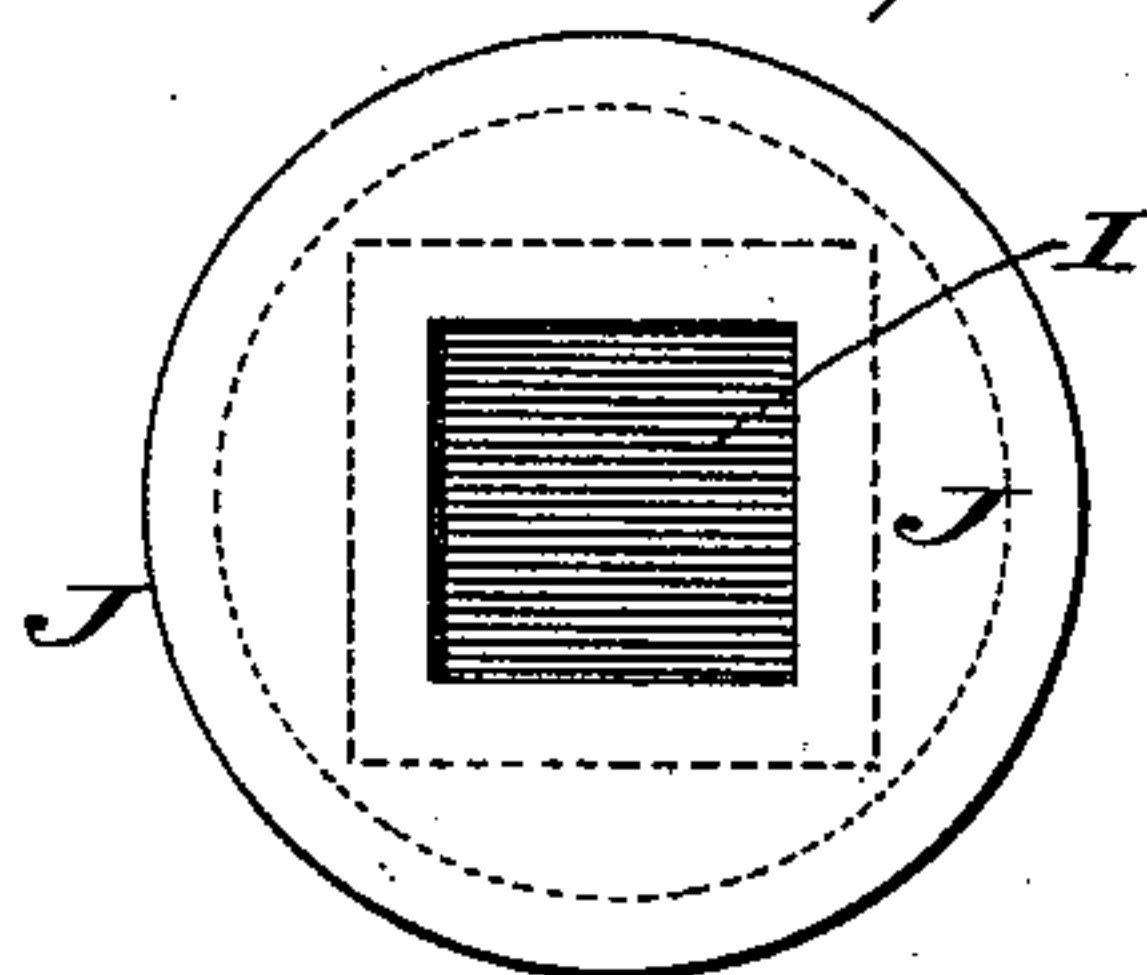
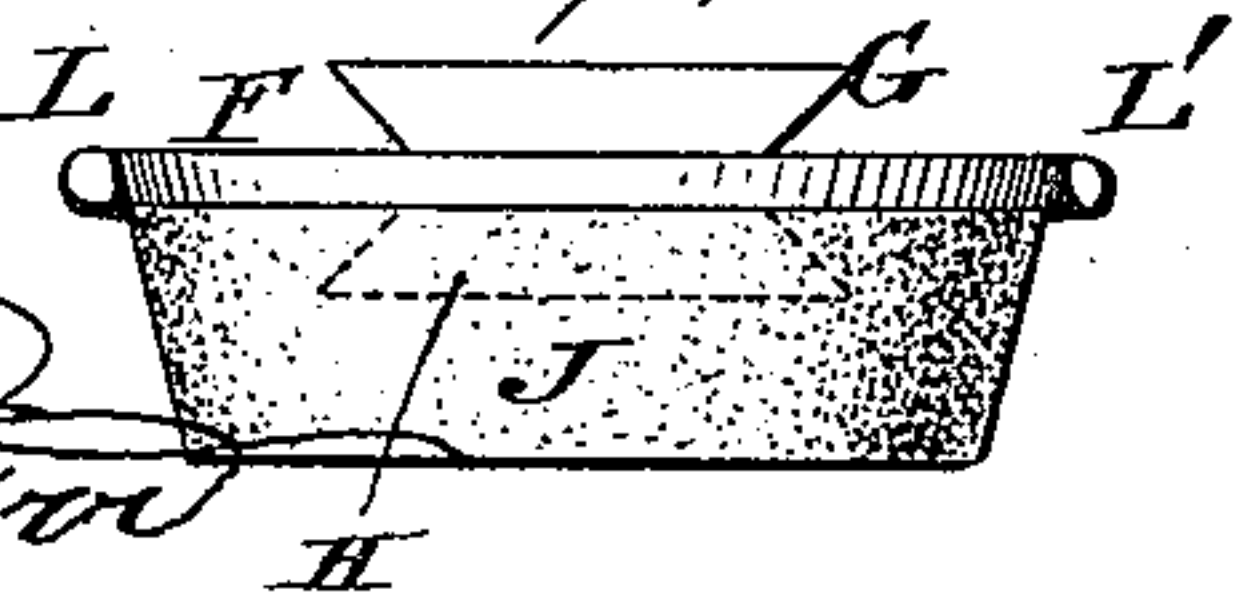


Fig. 7--



WITNESSES:
John O. Nolan
Charles Southgrove

INVENTOR
Harry J. Jones
BY
George E. Buckley
his ATTORNEY.

UNITED STATES PATENT OFFICE.

HARRY J. JONES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO FREDERICK MARSCH, OF SAME PLACE.

BUNG AND BUSH.

SPECIFICATION forming part of Letters Patent No. 441,418, dated November 25, 1890.

Application filed March 1, 1890. Serial No. 342,299. (No model.)

To all whom it may concern:

Be it known that I, HARRY J. JONES, a resident of Philadelphia, Pennsylvania, and a citizen of the United States, have invented certain new and useful Improvements in Bungs or Stoppers for Barrels and other Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

10 Figure 1 is a longitudinal sectional view of a broken barrel-stave and a vertical cross-sectional view of my device in place therein; Fig. 2, an elevation of the ring which receives the bung or stopper and which is designed
15 to be screwed into the stave; Fig. 3, a plan view of the same; Fig. 4, a cross-sectional view thereof; Fig. 5, a plan view of the stopper, showing the square lug by which it is turned; Fig. 6, a top view of the round rubber block, showing the square formation of the recess in the top thereof, the square dotted line showing the size of the bottom of this
20 recess and the round dotted line the contracted lower end of this rubber block, which latter is shaped like the inverted frustum of a cone to correspond with the interior shape of the metallic ring; Fig. 7, an elevation of the bung or stopper, showing the rubber block in the shape of an inverted frustum of a cone
25 in place.

One object of my invention is to provide a bung which can be removed without the necessity of pounding the stave in which it is set, which ruins the barrel, springs the stave, and knocks off the pitch or rosin coating within. The other object is to provide a bung
30 which can be removed with the same ease as the stopper of an ordinary preserve-jar.

A is a round metallic ring provided outwardly with a screw-thread B to engage with the fibers of the wooden stave. It is also provided on its upper outer edge with an annular lip C, which rests upon the upper surface of the stave K, and when the barrel is rolled
40 about prevents the ring from being driven, and thus destroying the screw-threads in the wooden stave.

D D' are short spiral grooves in the interior surface of ring A, and they start, respectively, from recesses E E' and trend downward therefrom. The shape of the interior

of ring A in vertical section is that of the inverted frustum of a cone.

F is the rounded metallic part of the cap, which is provided on its upper face with a square (polygonal) lug G, dovetailed and spreading upward. On its lower face it is provided with a square (polygonal) lug H, dovetailed and spreading downward. Lug H engages in a correspondingly-shaped recess I of the rubber frustum-shaped block J. The plate F is provided on opposite sides of its edge with ears L L', which set, respectively, in recesses E E'. The top of ring A projects so far outside of the surface of the stave K that it is in a plane outside of that of the top of lug G, whereby the latter is in a manner countersunk within the ring, and is protected from injury while the barrel is being rolled about or roughly handled in shipment. The dovetailed form of this lug enables it to be grasped by pinchers in case of its sticking when being withdrawn. The square or polygonal form of lug H, which is dovetailed and sets in a correspondingly-shaped recess in rubber block J, insures the turning of the latter with it when being inserted or withdrawn. The rubber, while it is elastic and will form a good packing, is sufficiently dense or firm to grasp and hold its place on lug H when the latter is turned in inserting and withdrawing the bung. Plate F is turned by means of a wrench adapted to engage with top polygonal lug G.

Parts A and F may be made of metal or other suitable material.

By the methods at present in use the wooden bung is fit for use only once. A new bung has to be employed every time a barrel or keg is refilled, whereas my stopper can be used and reused hundreds of times.

In the drawings the ring is shown as a separate piece for use in barrels and kegs, and it is screwed into the stave by means of a wrench or tool adapted to engage with recesses E E'.

What I claim as new is—

In combination with the body of a barrel provided in its side with an opening the sides of which are screw-threaded, a separate screw-threaded ring A, adapted to engage in the said opening, the interior surface of which ring contracts toward the bottom thereof and is

provided with spiral grooves D D', the bung-plate F, provided with ears L L', adapted to engage in the said grooves, and also provided beneath with an elastic block adapted by its
5 shape to engage with the tapering interior of the said ring, whereby when the bung-plate is turned the ears thereof, engaging in the said spiral grooves, will force the elastic block down into the tapering interior of the ring to

form a packed air-tight joint, substantially as is described.

In testimony whereof I have hereunto affixed my signature this 20th day of February, A. D. 1890.

HARRY J. JONES.

Witnesses:

GEORGE E. BUCKLEY,
CHARLES SCATTERGOOD.