

No. 619,239.

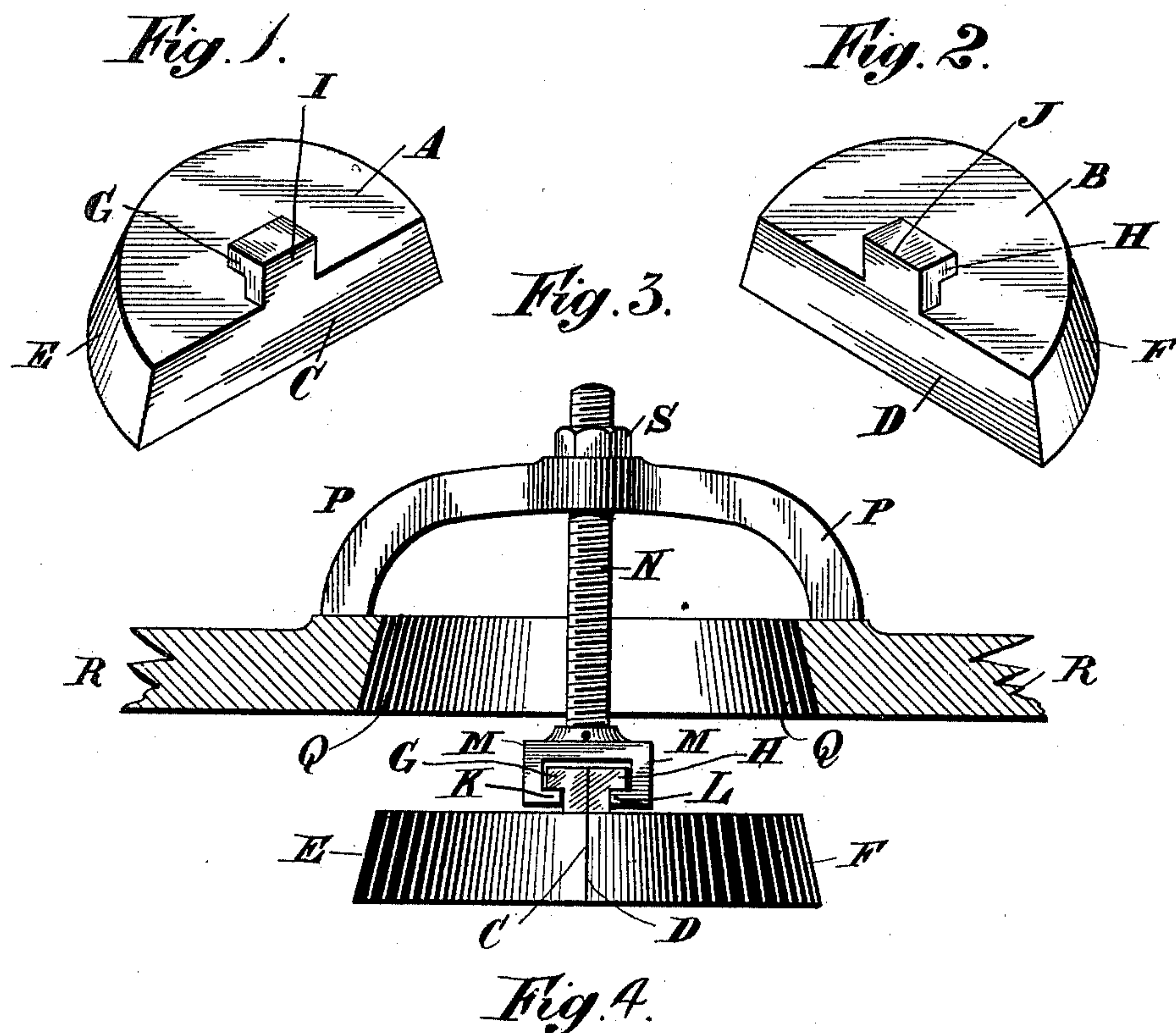
Patented Feb. 7, 1899.

J. TAYLOR.
HAND HOLE COVER.

(Application filed Sept. 17, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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2 Sheets—Sheet 2.

Fig. 5.

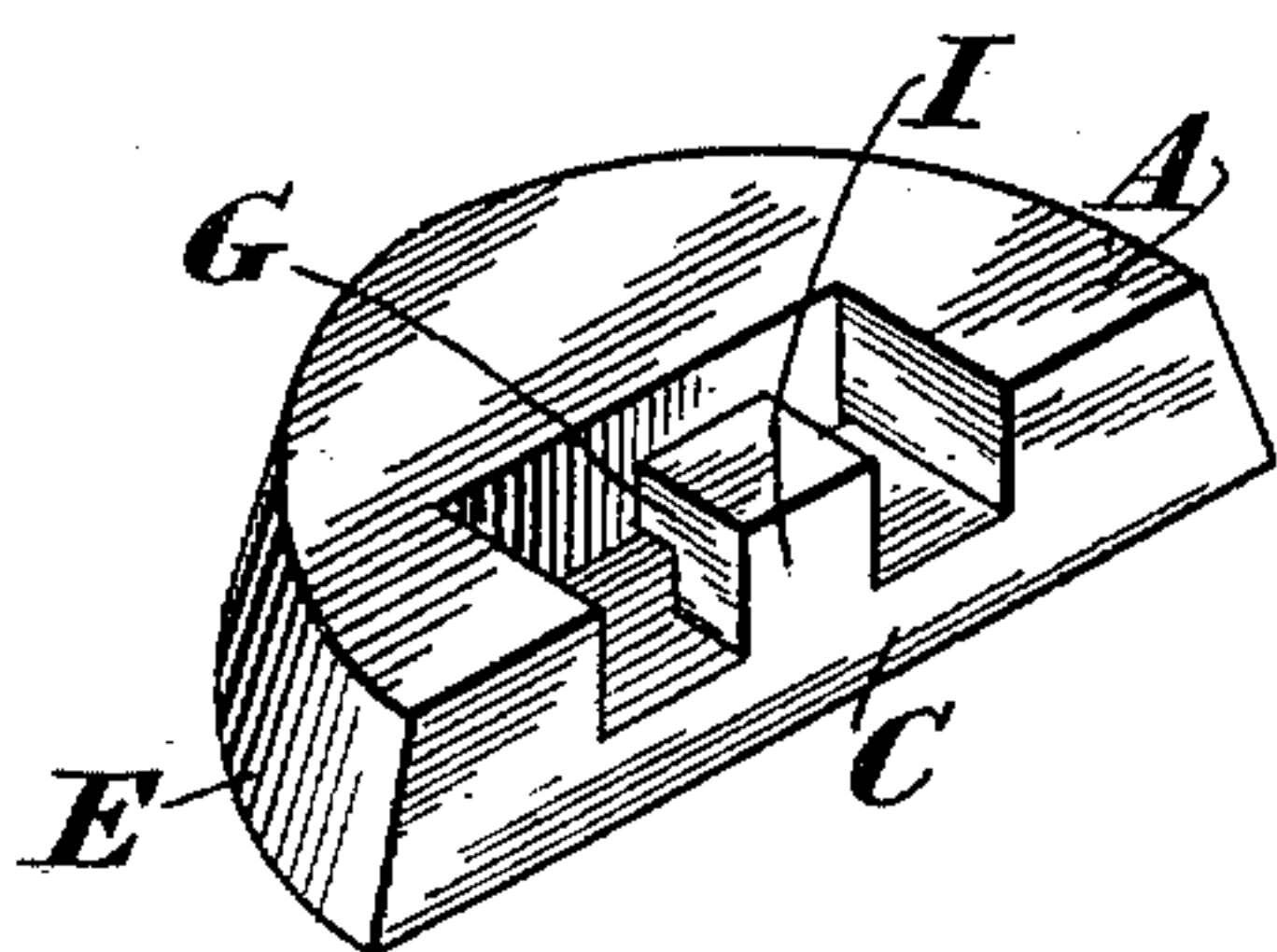


Fig. 6.

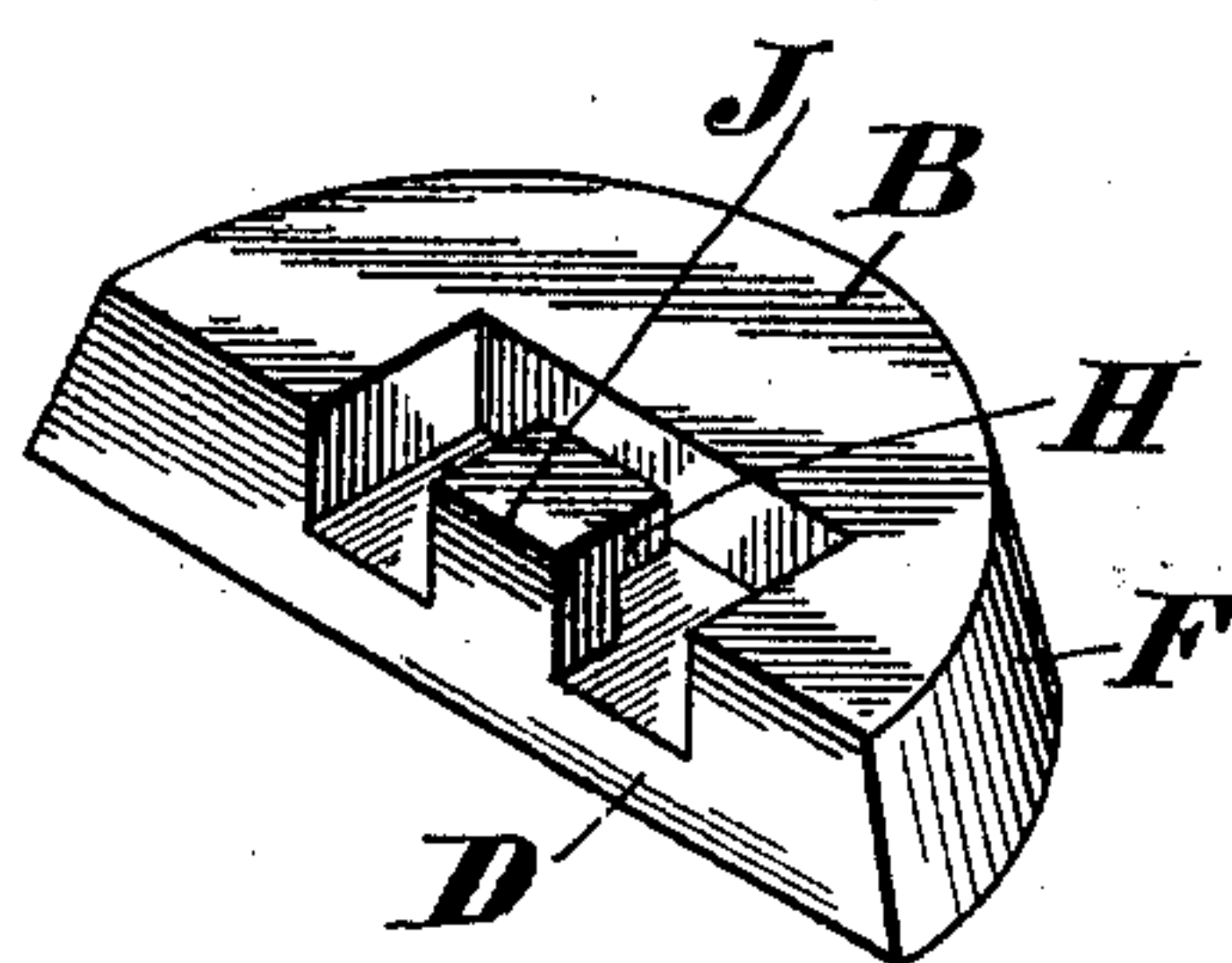


Fig. 8.

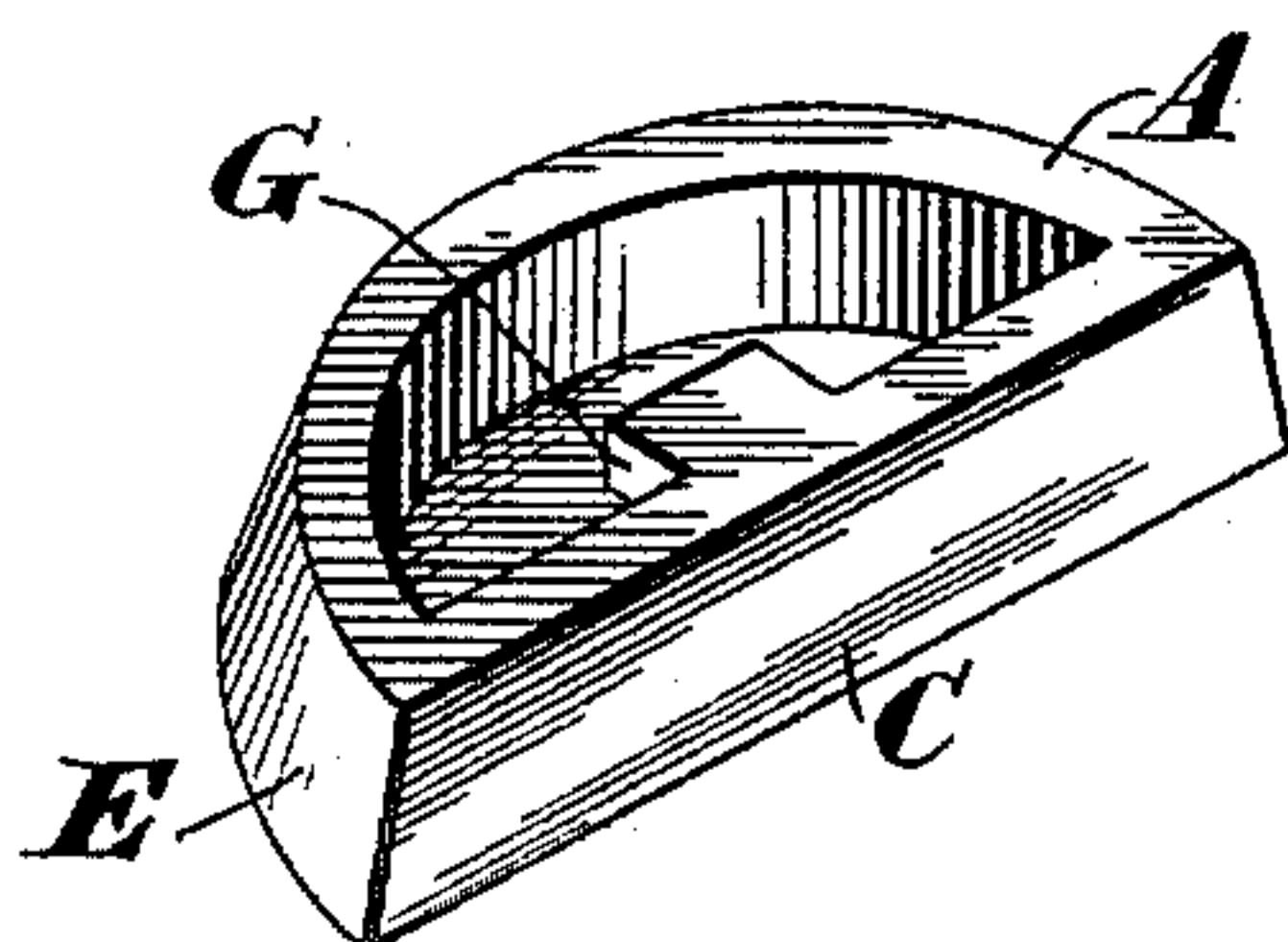


Fig. 9.

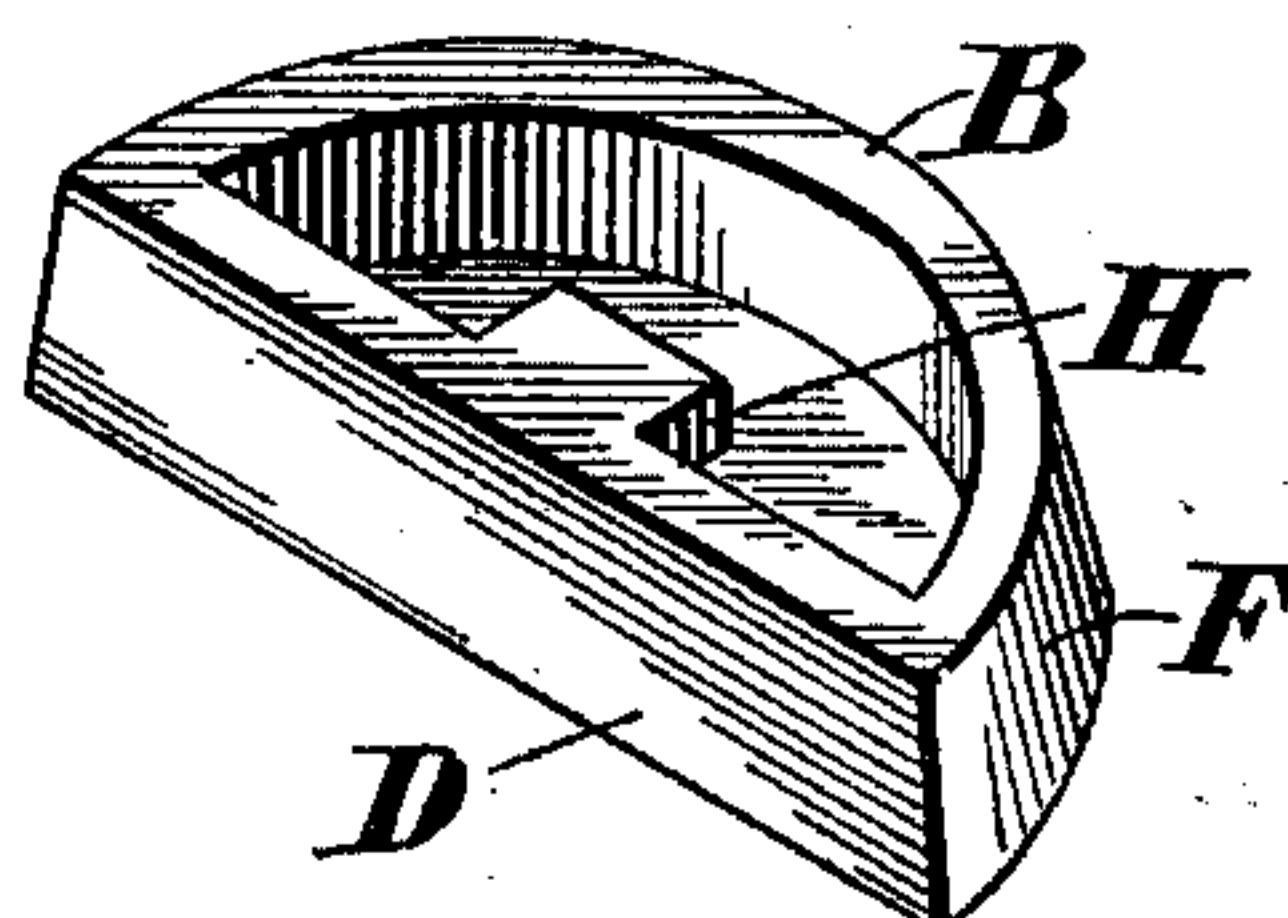
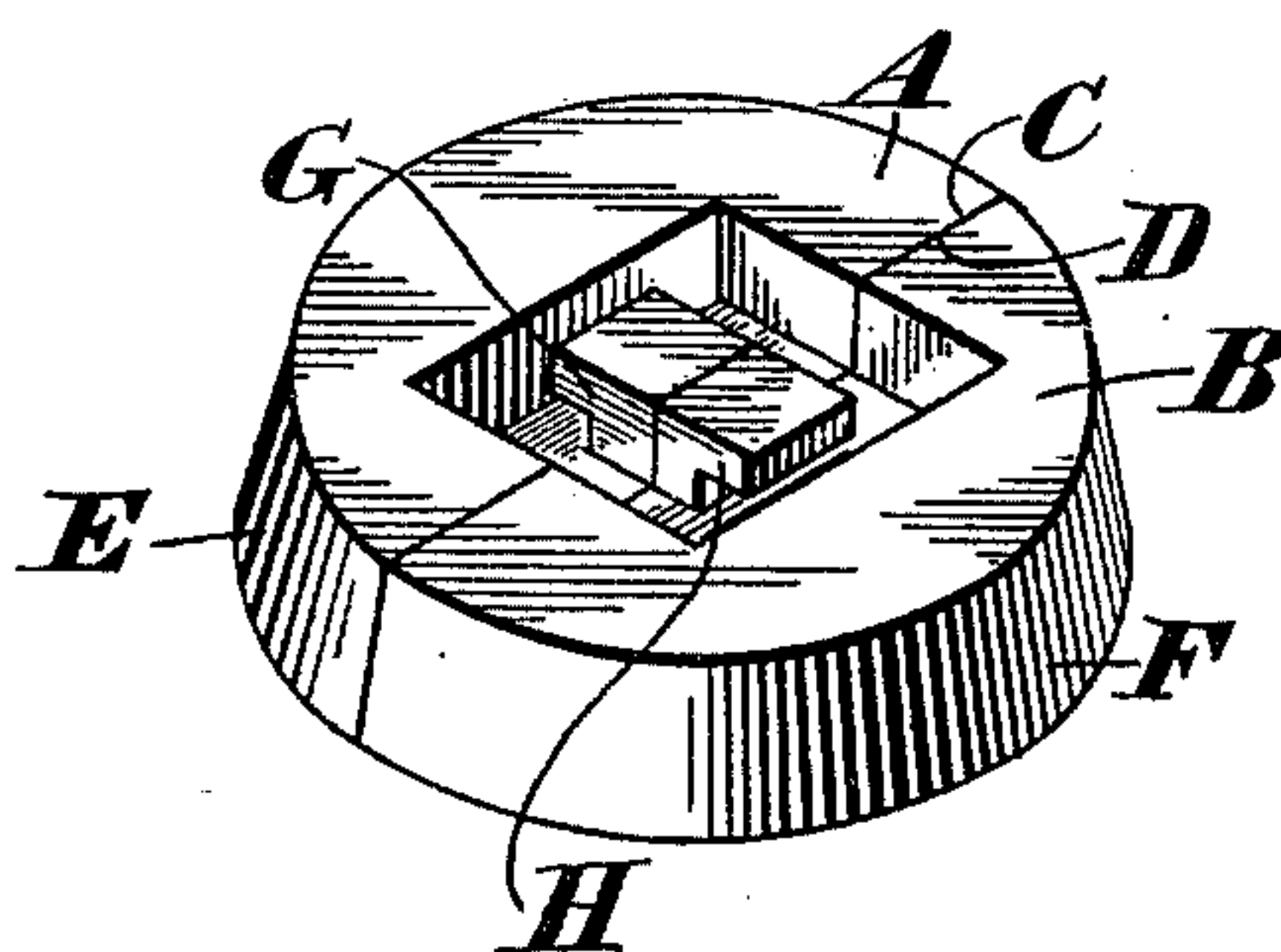


Fig. 7.



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Att'y

UNITED STATES PATENT OFFICE.

JOSEPH TAYLOR, OF POT OVENS, ENGLAND, ASSIGNOR TO THE E. GREEN & SON, LIMITED, OF WAKEFIELD, ENGLAND.

HAND-HOLE COVER.

SPECIFICATION forming part of Letters Patent No. 619,239, dated February 7, 1899.

Application filed September 17, 1898. Serial No. 691,229. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH TAYLOR, a subject of the Queen of Great Britain, residing at Melrose Cottage, Pot Ovens, near Wakefield, in the county of York, England, have invented certain new and useful Improvements in Hand-Hole and Similar Covers for Steam Apparatus, Feed-Water Heaters, and the Like, of which the following is a specification.

This invention has for its object the construction of internal lids of fuel-economizers, boilers, and steam or other apparatus generally in two parts interchangeable with each other and having a tapered periphery, so that each part or half can be inserted into the hole in the economizer, boiler, steam, or other apparatus prepared to receive it and be drawn upwardly by an appliance and be there retained by pressure or by a bridge or otherwise and made water-tight by a screw and nut.

The advantages obtained by this invention are, first, that an internal conical lid, as understood, can in this form be taken in and out of its own hole; second, ease of manufacture; third, facility to insure rapid fitting, and, fourth, perfect water-tight meeting joints at the seams.

To carry my invention into practice, I make a lid in two parts, preferably in halves, to be interchangeable, and true up the transverse faces, so that they can be in touch with each other over the entire flat surface when brought together, or so much of such faces that I desire to be in contact. I taper the peripheral portions, which correspond to the tapered inner periphery of the hole in which my improved lid has to fit.

Each half or portion of my lid is provided with a lip or flanged stud at its upper part at the center and with a plain surface coinciding with that of the transverse trued-up faces, so that when brought together by a double-lipped brace they fit exactly one to the other and constitute a single lid. This double-lipped brace is attached to or forms part of a screw-stem and passes through a hole in a bridge which straddles the hole, and then by a nut the lid is drawn up tightly in the hole previously bored for its reception.

My invention is clearly shown on the annexed drawings.

Figures 1 and 2 are perspective elevations of half-lids having the lips or flanged studs projecting from the upper surface; Fig. 3, transverse section of plate, such as the upper portion of a fuel-economizer, and showing the half-lids in elevation and suspended by the double-lipped brace and its screw from a bridge ready to be drawn up into the hole of the plate when the nut is turned; Fig. 4, similar section and elevation showing the half-lids drawn up and located in the hole of the plate as the closing medium thereof; Figs. 5 and 6, perspective elevation of half-lids with the lips or flanged studs in a recessed portion of the upper surface; Fig. 7, perspective elevation of the two half-lids shown in Figs. 5 and 6 in position and constituting one lid, and Figs. 8 and 9, perspective elevations of half-lids with the lips or flanged studs in a recessed portion of the upper surface and with the meeting faces of the half-lids entire.

A B are two half-lids; C D, trued-up transverse faces; E F, tapered peripheries; G H, lips of studs I J on upper sides of half-lids and centrally arranged; K L, lips of brace M for engaging under lips G H of studs I J; N, screw-stem of double-lipped brace; P, bridge straddling the tapered hole Q of some part of a fuel-economizer or the plate R of a steam-boiler, a feed-water apparatus, or other like vessel in which internal lids are required to close the holes, and S screw-nut on bridge P.

The lips G H may be of shapes other than those shown and be arranged in any convenient manner.

What I claim, and desire to secure by Letters Patent, is—

1. An internal lid for hand-holes of steam apparatus, said lid having a plain, flared outer face, a stud rising from its upper face and having oppositely-projecting lips, said lid being divided into two similar parts each part including one-half of the stud, and a screw-stem supported in a bridge straddling the hand-hole, the end of said stem having a brace provided with lips to engage the lips of the stud, substantially as described.

2. An internal lid for the hand-holes of steam apparatus, said lid having a circular flared outer face, a stud rising from a recessed portion of the upper surface and pro-

vided with oppositely-projecting lips, a bridge
straddling the hand-hole, a screw-stem sup-
ported in said bridge, and a brace on the end
of the stem to engage the lips of the stud, the
5 lid being centrally divided into two similar
parts, each part including one-half of the stud
and one of the lips of the latter, substantially
as described.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit- 10
nesses.

JOSEPH TAYLOR.

Witnesses:

WM. N. PEARSON,
THOS. LEES.