

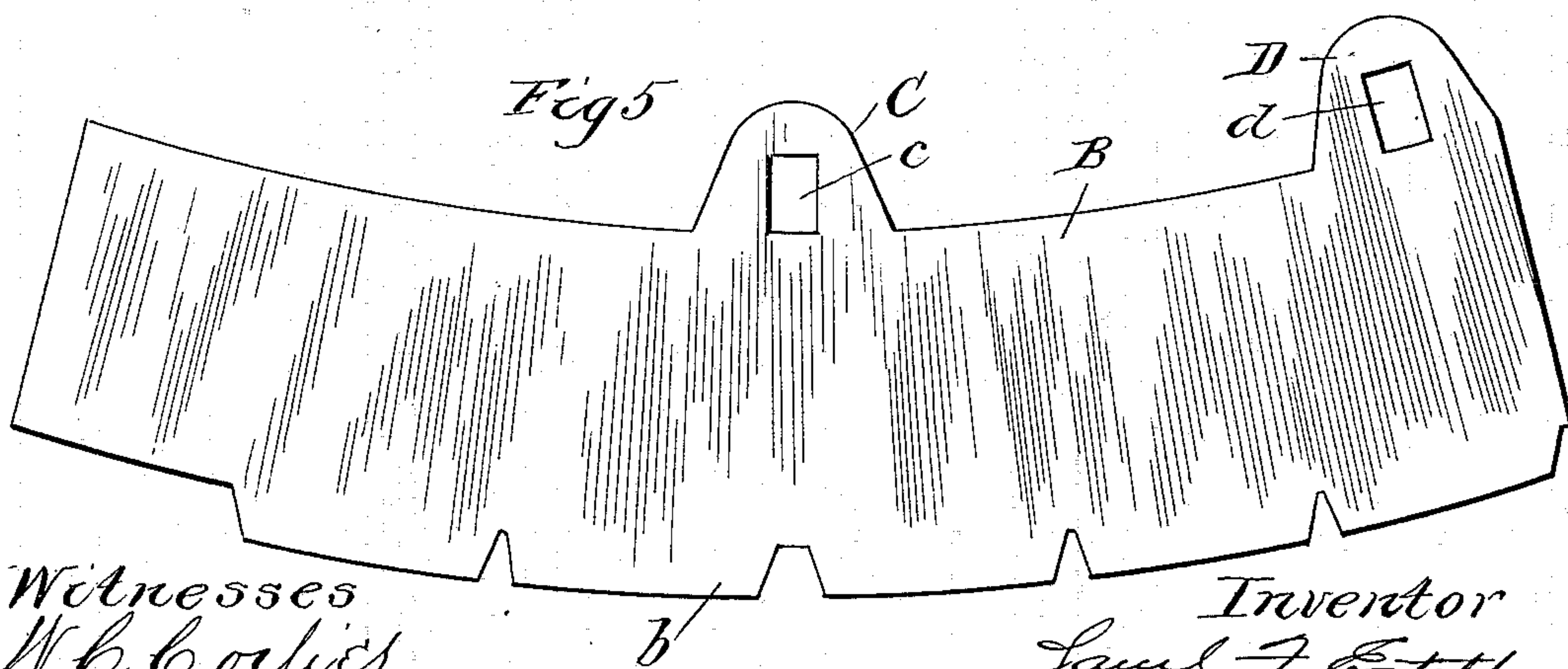
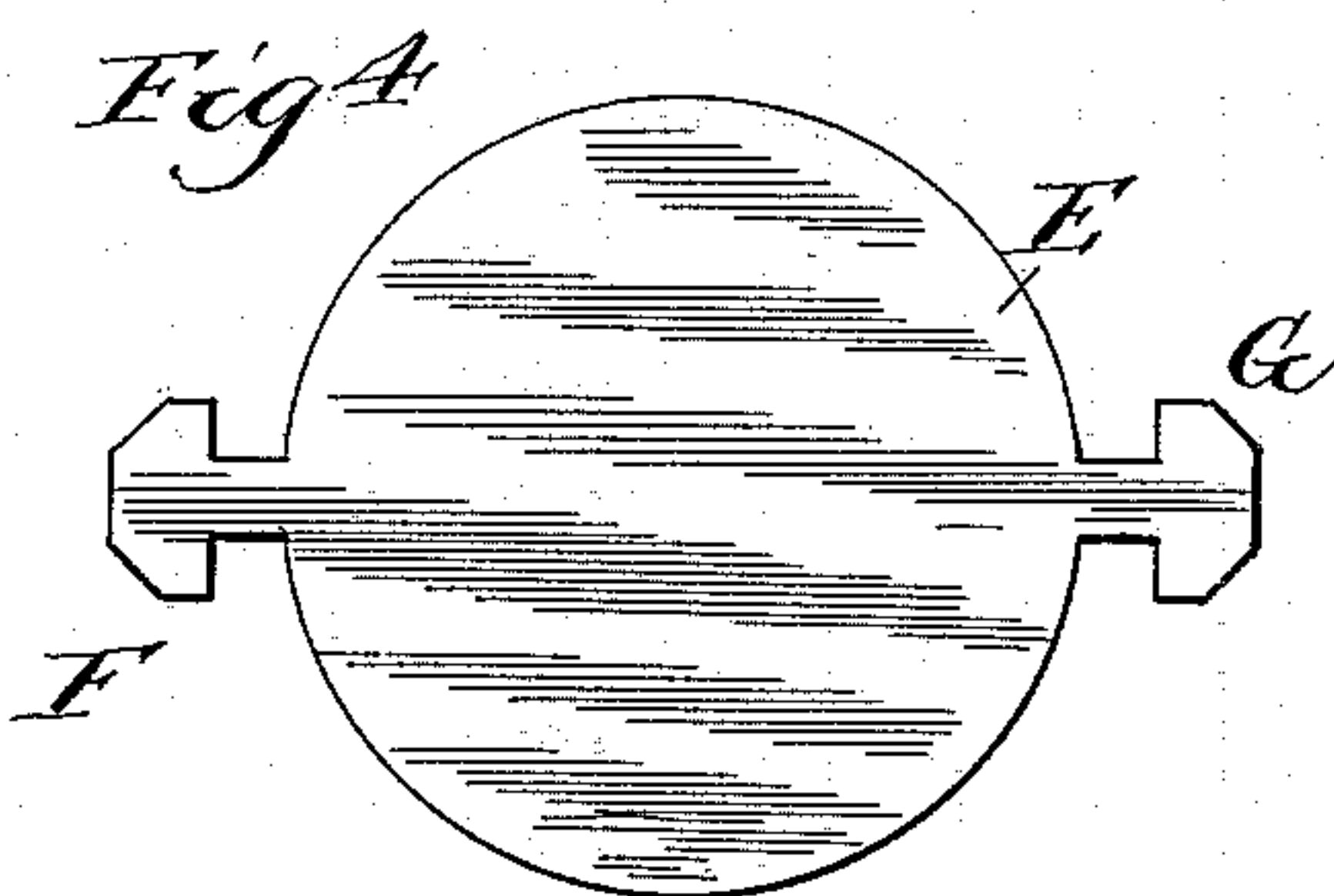
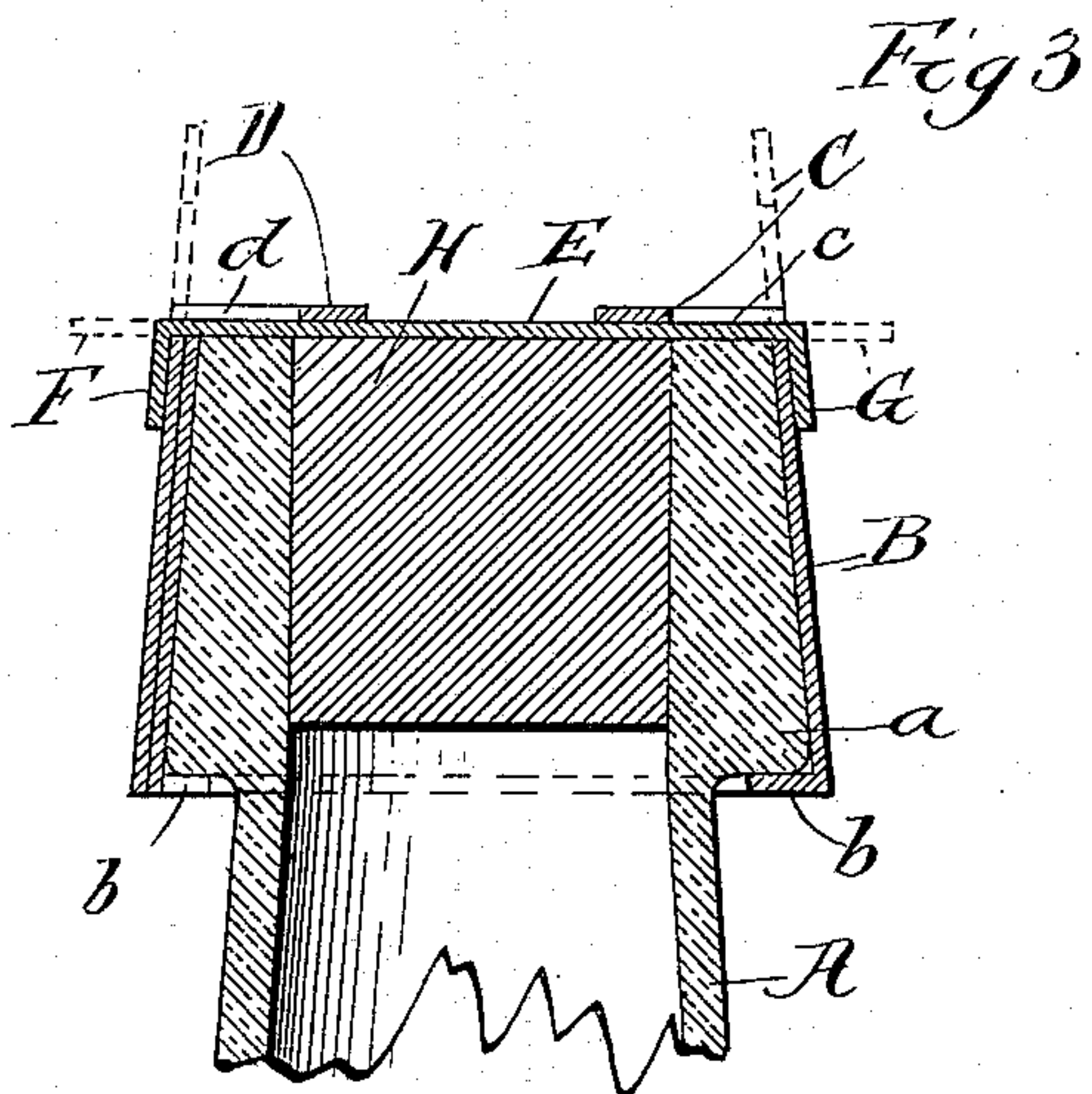
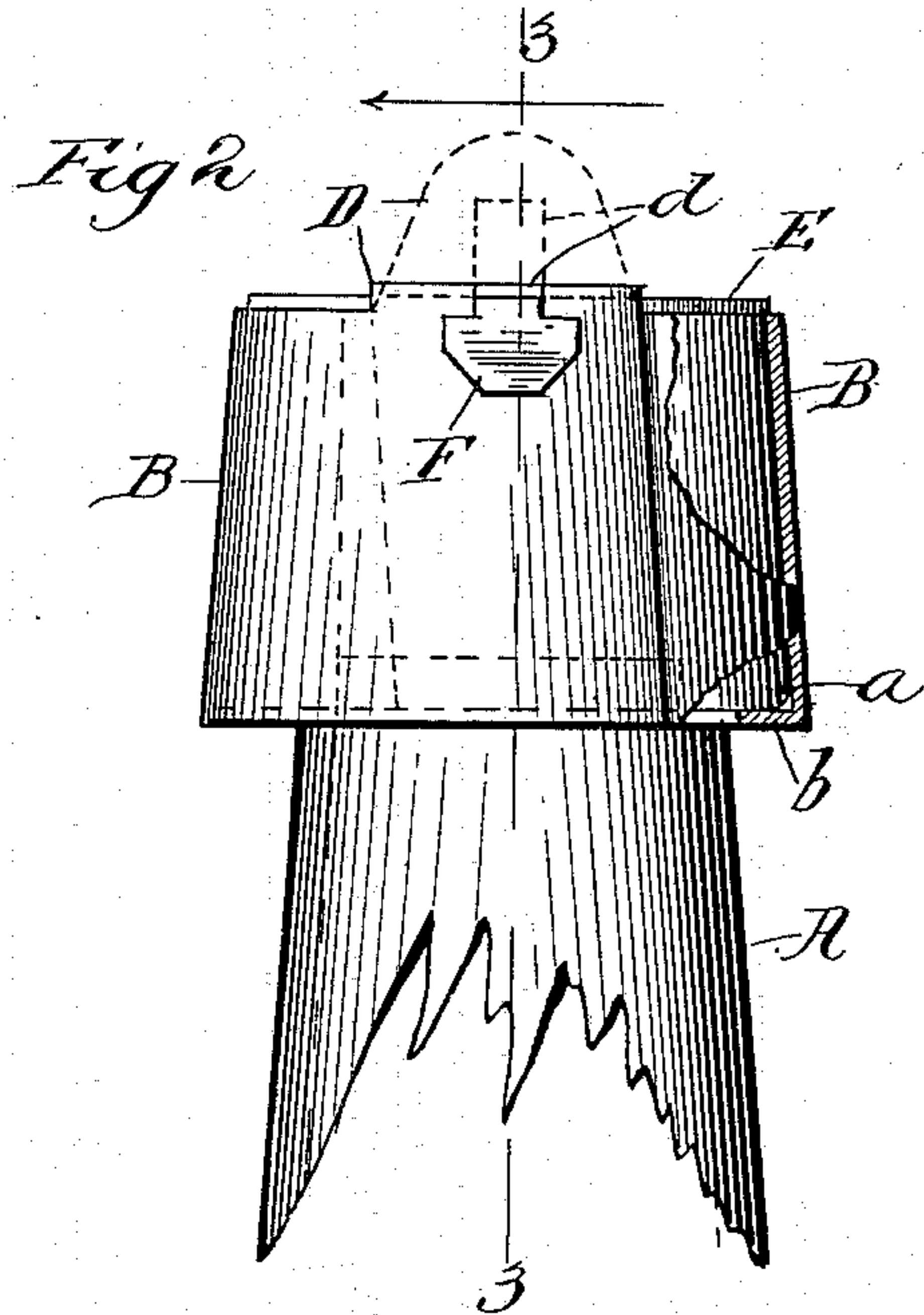
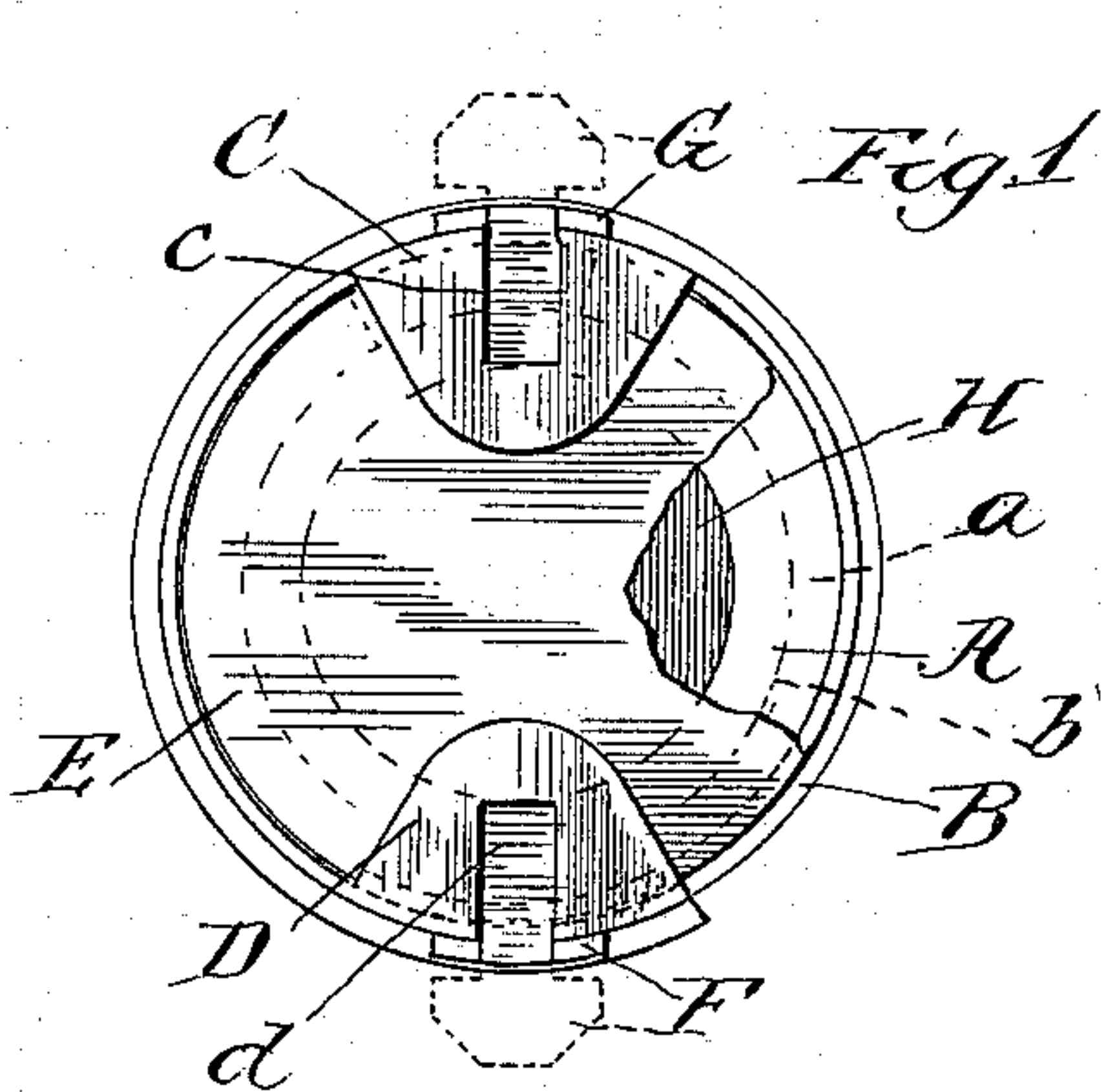
No. 615,543.

Patented Dec. 6, 1898.

S. F. ESTELL.
BOTTLE SEAL.

(Application filed June 15, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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BOTTLE-SEAL.

SPECIFICATION forming part of Letters Patent No. 615,543, dated December 6, 1898.

Application filed June 15, 1898. Serial No. 683,460. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. ESTELL, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bottle-Seals, of which the following is a specification, and which are fully illustrated in the accompanying drawings, forming a part thereof, and in which—

Figure 1 is a plan view of a bottle-neck to which my improved seal has been applied, some of the parts being broken away. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view on the line 3 3 of Fig. 2. Fig. 4 is a plan view of the blank of the cap-piece of the seal, and Fig. 5 is an elevation of the blank of the band coöperating with the cap.

One of the objects of the invention is to provide a seal for a bottle which cannot be removed for the purpose of opening the bottle without being so broken that it cannot be replaced, thereby insuring the genuineness of the contents of the package.

A further object is to provide means in connection with a bottle-seal for holding the cork against internal pressure.

These objects are attained by means of an interlocking band for encircling the neck of the bottle and cap-plate for covering the end of the bottle-neck, as hereinafter fully described.

In the drawings I show at A the neck of a bottle having its outer end thickened, as usual, so as to form an annular shoulder *a*. A metal band B is employed and is of sufficient length to encircle the thickened portion of the bottle-neck and has its ends overlapped. The lower edge of the band B is provided with an inturned flange *b* to engage the shoulder *a*. This band is preferably notched, as shown in Fig. 5, in order that it may the more readily take a circular form, and the underlapping end of the band is without such a flange portion. The width of the band B is equal to that of the thickened portion of the bottle-neck, so that when its flange *b* is in engagement with the shoulder *a* its upper edge is flush with the end of the bottle-neck. A pair of lugs C D, integral with the band B, rise from the upper edge of the latter and are spaced apart to such distance that when the

band is applied tightly to the bottle-neck they will be diametrically opposite. These lugs are vertically apertured, as shown at *c d*.

A flat circular cap-piece E is used in conjunction with the band B and its diameter is the same as that of the end of the bottle-neck. The cap-piece E is provided with a pair of oppositely-located T-lugs F G, the width of whose shanks is the same as the width of the slots *c d*, while the length of these slots is such that the heads of the lugs will enter them when the cap E is turned edgewise.

In applying the seal to a bottle-neck the cork H is first inserted into the latter, and in order to secure the best results should be flush with the end of the neck. The plate E is engaged with the band B by having its lugs F G inserted into the slots *c d*, the band B having taken a circular form as the flange *b* is turned inwardly, but normally of somewhat greater diameter than the neck of the bottle—that is to say, being somewhat expanded. The band B is now forced over the neck of the bottle until its flange *b* passes the shoulder *a* and is then compressed tightly to the bottle-neck, its two ends sliding upon each other, and the flange *b* is brought into close engagement with the shoulder *a*. The ends of the lugs F G are now folded downward tightly against the band B, as shown in Fig. 3, and securely hold it snugly against the bottle-neck, preventing its expansion to its normal form. The lugs C D are now turned downwardly upon the plate E, as shown in Fig. 3, and operate with the lugs F G to prevent the expansion of the band as they hold it against sliding downwardly on the bottle-neck, which is somewhat tapering in form.

The seal is made of sheet metal of limited pliability, so that the flange *b* and the several lugs cannot be turned backwardly to their original position without being broken off. To augment this frangibility, their several parts should be turned at a sharp angle, as plainly indicated in Fig. 3. Such metal as hard brass, aluminium, and some grades of sheet-steel have the capacity of being once turned and of being certain of fracture in an attempt to again straighten them. The difficulty of loosening the band from the bottle-neck by turning the flange *b* outward is in-

creased by the curved form of the latter, and without straightening this flange the band cannot be removed unless all of the lugs are straightened.

5 The seal is capable of resisting high pressure from within the bottle, because it is applied so near the bases of the lugs C D that they are capable of resisting great strain.

10 While I have shown and described the cap piece E as being circular in form, I do not desire to be limited to this shape, as it is not essential to the performance of the intended functions.

I claim as my invention—

15 1. In a bottle-seal the combination with a strap provided with an inturned flange at its lower edge and adapted to loosely encircle the bottle-neck, of a plate adapted to cross the end of the bottle-neck and to fold down upon
20 the strap to compress it, and means for securing the plate in position.

2. In a bottle-seal the combination with a strap provided with an inturned flange at its lower edge and adapted to compressibly en-
25 circle the bottle-neck and having loops at its upper edge, of a plate adapted to cross the end of the bottle-neck, to pass through the

loops and to have its ends folded down upon so as to compress the strap.

3. In a bottle-seal the combination with a strap provided with an inturned flange at its lower edge and adapted to compressibly encircle the bottle-neck and having upstanding longitudinally-slotted lugs, of a plate for crossing the end of the bottle-neck and having lugs adapted to enter the slots of the upstanding lugs, and having their outer ends of greater width than the slots, whereby the strap may be compressed by turning down upon it the plate-plugs and the plate may be secured by folding down the strap-lugs.
30 35 40 45

4. In a bottle-seal, the combination with a strap provided with an inturned flange at its lower edge and adapted to loosely encircle the bottle-neck, of a plate adapted to cross the end of the bottle-neck and to fold down upon the strap to compress it, such plate being made of frangible material capable of being folded but once without fracture, and means for securing the plate in position.

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