

No. 743,636.

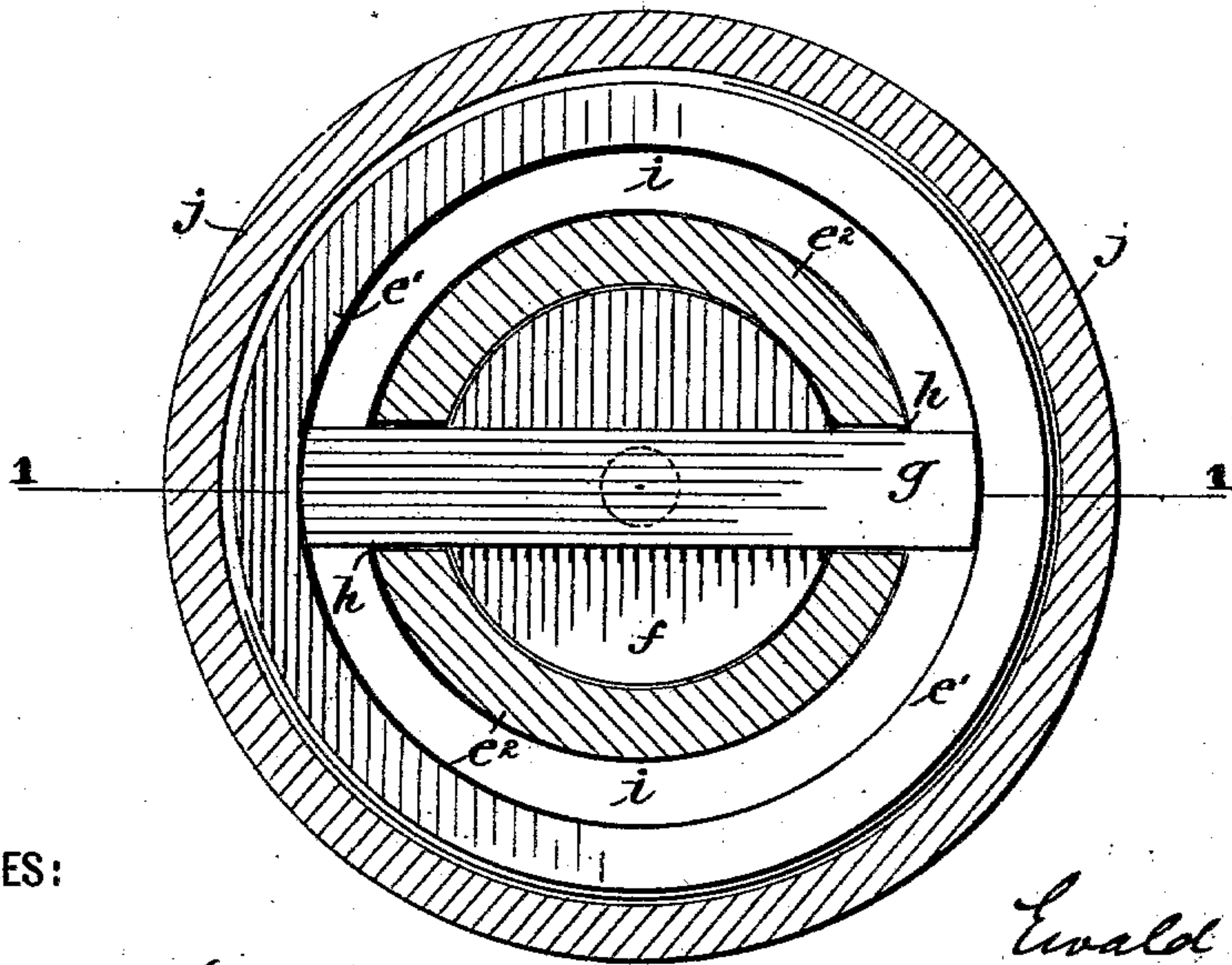
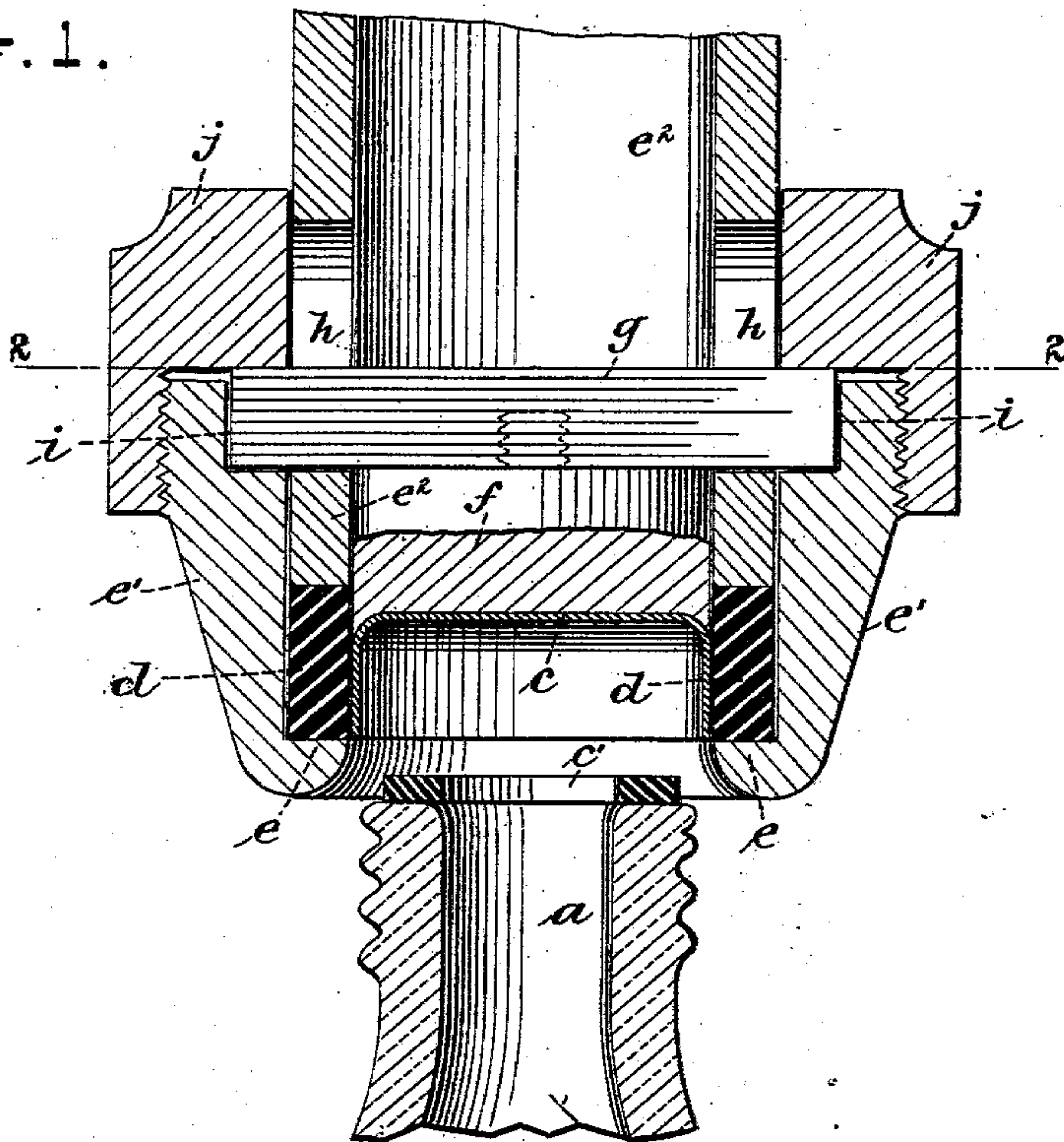
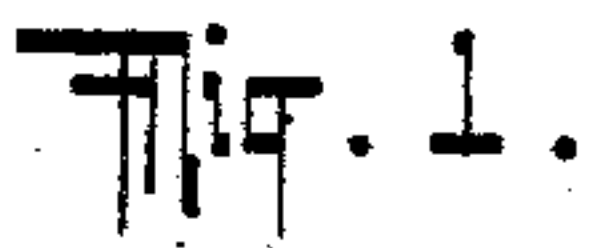
PATENTED NOV. 10, 1903.

E. GOLTSTEIN.
MEANS FOR SEALING BOTTLES.

APPLICATION FILED DEC. 3, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

John A. Lehlenbeck.
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INVENTOR

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BY *Bresen Thau*
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No. 743,636.

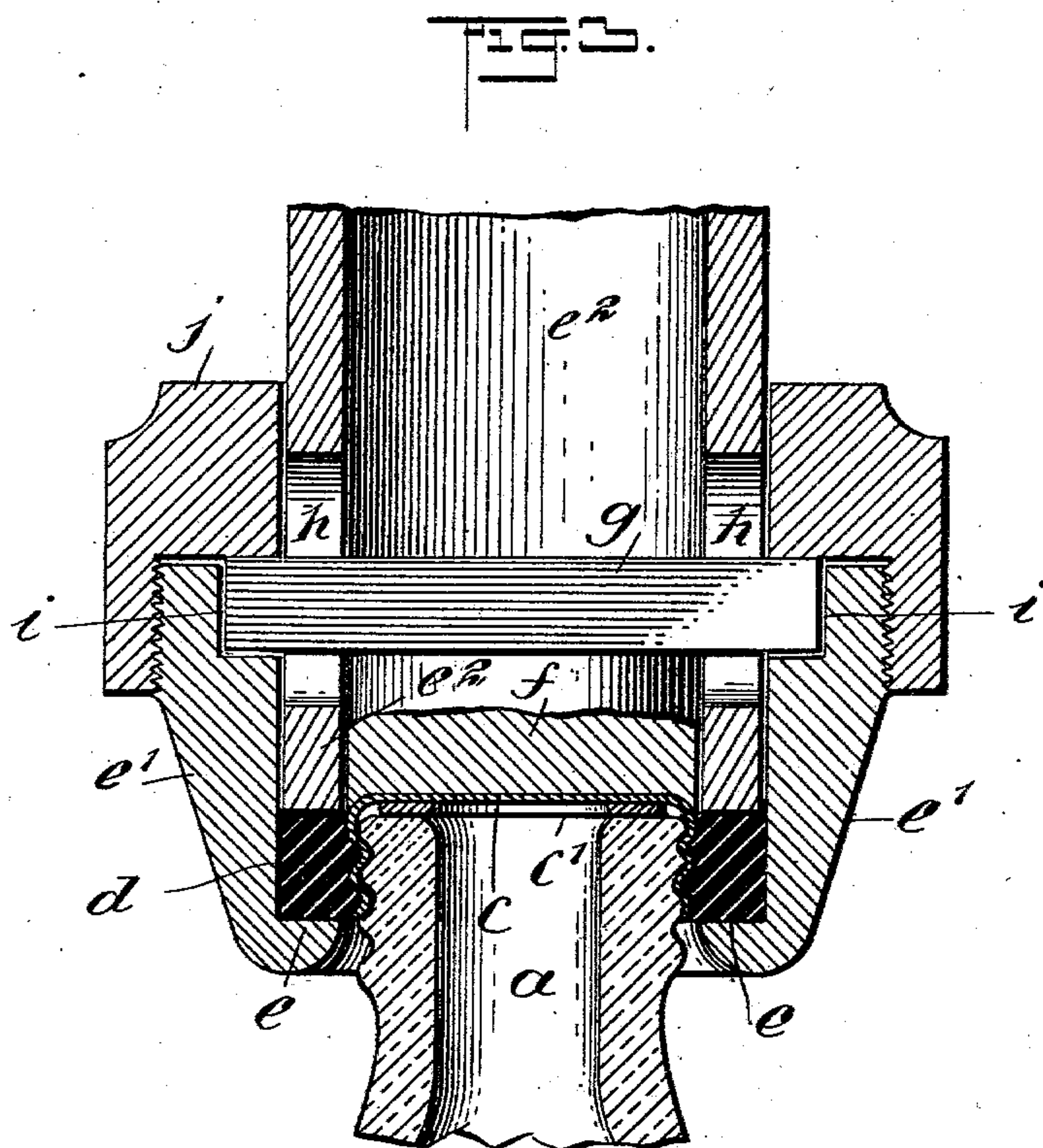
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WITNESSES:

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UNITED STATES PATENT OFFICE.

EWALD GOLTSTEIN, OF COLOGNE, GERMANY.

MEANS FOR SEALING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 743,636, dated November 10, 1903.

Application filed December 3, 1902. Serial No. 133,669. (No model.)

To all whom it may concern:

Be it known that I, EWALD GOLTSTEIN, of the city of Cologne, in the German Empire, have invented certain new and useful Improvements in Means for Sealing Bottles, of which the following is a specification.

To this end I provide means for applying a hollow cap externally upon the bottle-neck, the said cap being pressed against the outside of the bottle-neck, which is provided with natural or artificial irregularities, by means of the pressure of a medium, such as india-rubber, which is capable of assuming any shape.

To enable the invention to be fully understood, I will describe it by reference to the accompanying drawings, in which—

Figure 1 illustrates in a sectional view a suitable form of apparatus for carrying out the invention and a suitable bottle-neck, the section being taken on line 1 1 of Fig. 2. Fig. 2 is a sectional plan on line 2 2 of Fig. 1; and Fig. 3 is a view similar to Fig. 1, but showing the parts in a different position with the cap applied to the bottle.

In the particular arrangement shown the india-rubber has the shape of a ring *d*, held upon the flange *e* of the cylinder or ring *e'*. An internal cylinder *e²* rests with its lower end upon the upper part of the said ring *d*. *f* is a block, the lower surface of which is provided with a concave recess to receive the hollow cap *c* and is situated within the ring *d* under the upper part of this ring. As clearly shown, the said block *f* is provided with lateral lugs *g g*, which pass through slots *h h*, formed in the inner cylinder *e²*, and rest within recesses or a channel *i*, provided in the upper part of the cylinder or ring *e'*. A ring or connection *j* is screwed upon the outside of the upper end of the said ring or cylinder *e'*, this connection serving to rigidly hold the block *f* in the ring *e'*.

The device operates as follows: The hollow cap or capsule *c* being placed in position within the rubber ring *d* or on the top of the bottle-neck with a suitable washer *c'* for providing a hermetic joint when the cap is pressed down, the bottle-neck is passed into the cap, and pressure is then applied to the inner movable cylinder *e²*. This first presses the india-rubber ring *d* downward, and as the

ring *e'* is rigidly connected with the block *f* by means of the connection *j* the pressure upon the india-rubber ring is communicated to the top of the cap *c* through the said block until the packing ring or disk *c'* has been fully compressed and can yield no further. The ring or cylinder *e'* can then move no farther downward and further pressure upon the cylinder *e²* will cause a relative movement between the said cylinder *e²* and the ring *d*, whereby the india-rubber ring *d* is caused to bulge inward, so as to tightly apply the cap *c* against the sides of the neck of the bottle, causing it to enter all the inequalities or irregularities therein.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An apparatus for sealing bottles and the like, comprising a casing, an expansible ring therein, a block rigidly connected with the casing and extending partly within said ring and partly projecting therefrom, and an annular compressor arranged to move between the said projecting portion of the block and the casing and to engage the end surface of said ring.

2. An apparatus for sealing bottles and the like, comprising a casing, an expansible ring therein, a block rigidly connected with the casing, and an annular compressor surrounding said block and arranged to exert pressure on said expansible ring.

3. An apparatus for sealing bottles and the like, comprising a casing, an expansible ring carried thereby, a block rigidly connected with the casing, and a cylinder for exerting pressure on said expansible ring, said cylinder being movable relatively to the block.

4. An apparatus for sealing bottles and the like, comprising a casing, an expansible ring carried thereby, a block projecting into said expansible ring and provided with means connecting it with the casing, and an annular compressor surrounding the block and provided with longitudinal slots for the passage of the means which connect the block with the casing.

5. An apparatus for sealing bottles and the like, comprising a casing, an expansible ring carried thereby, a block arranged to enter said expansible ring, and provided with out-

wardly-extending arms, arranged to engage the casing, a screw-cap for locking said arms to the casing and a compressor surrounding the block and having slots for the passage of
5 said arms.

6. An apparatus for sealing bottles and the like, comprising a casing and a block spaced from each other and arranged concentrically, said block and casing being rigidly connected,
10 an annular compressor arranged to move in

the space between said block and casing, and an expansible ring arranged to be expanded by said compressor.

Signed at Cologne this 14th day of November, 1902.

EWALD GOLTSTEIN.

Witnesses:

N. FREIHERR VON LYNCKER,
CARL SCHMITT.