

(No Model.)

E. W. ROBINSON.
BOTTLE STOPPER EXTRACTOR.

No. 528,031.

Patented Oct. 23, 1894.

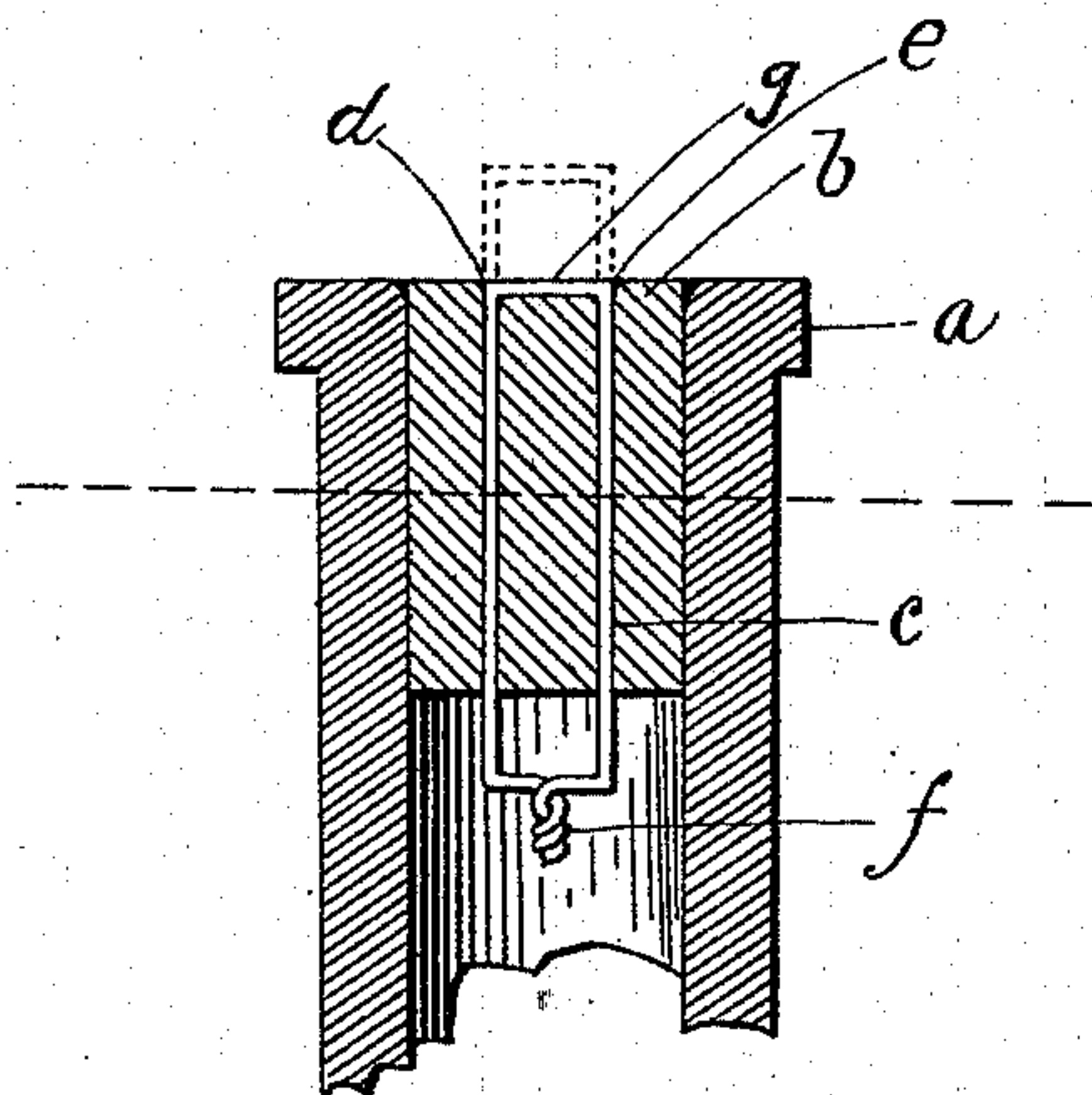


Fig. 1

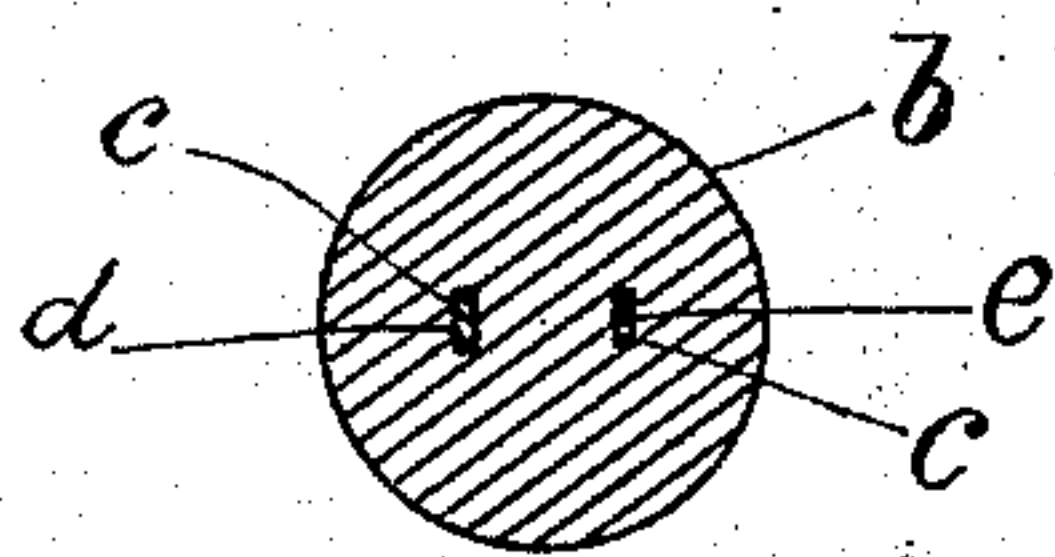


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD W. ROBINSON, OF DEERING, MAINE.

BOTTLE-STOPPER EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 528,031, dated October 23, 1894.

Application filed October 7, 1892. Serial No. 448,116. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. ROBINSON, a citizen of the United States, residing at Deering, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Bottle-Stopper Extractors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1, is a central vertical section of a bottle and stopper having my improved extractor attached thereto. Fig. 2, is a cross section of a stopper having my improved extractor.

Same letters refer to like parts.

My invention relates to improvements in bottle stopper extractors, and consists in a stopper of yielding material combined with an extractor consisting of a single piece of flat wire passing vertically through said stopper at two points, the wire being countersunk into the head of the stopper, the free ends united together and the vertical parts of the wire being somewhat longer than the body of the stopper, the flat parts of the wire presented to the portion of the stopper lying between the vertical parts thereof.

In the drawings the loop extractor is shown in which *a* represents a bottle, *b* a stopper and *c* a wire extractor. The ends of the wire pass entirely through the stopper at the points *d* and are parallel with each other or nearly so. The two ends of the wire at the bottom of the stopper are twisted or tied in a knot as shown at *f*. The length of the wire is somewhat greater than the length of the stopper so that when the top or loop *g* is pressed close to the top of the stopper the part at the bottom will extend somewhat below the bottom of the stopper as shown in Fig. 1, and when the wire is drawn up to form a loop to take hold of to extract the stopper the knotted part at the bottom is drawn against the bottom of the stopper and the top will be raised above the top of the stopper as indicated by dotted lines in Fig. 1. The wire

may be of any suitable form but it has been found by experiment that the flat wire is very much less liable to cut through the material than the ordinary round wire. The advantages of this arrangement are that the wire is very much less liable to pull through the material without drawing the stopper. Inasmuch as the two parts of the wire pass through the stopper in nearly parallel lines, the wire may be moved up and down in the stopper and the top may be embedded in the top of the stopper and not project above it. This is important in all cases where it is desired to seal the bottle by wax or other means to keep out the air, or to cover the stopper with a label or ornamental device. The stopper being made of any elastic or yielding material readily permits the wire to be forced through it and when the stopper is driven into the neck of the bottle it is pressed closely against the sides of the wire so as to prevent the ingress of air and egress of the contents of the bottle between the material of the stopper and the wire.

To draw the stopper insert a sharp pointed rod under the loop or head and raise the extractor to the position shown by dotted lines in Fig. 1, thus affording good means for withdrawing the stopper.

Having thus described my invention and its use, what I claim is—

The combination with a bottle stopper, of a stopper puller consisting of a single piece of flat wire passing vertically through said stopper at two different points, said wire being countersunk into the top of said stopper and having its two ends knotted together at the bottom, and so arranged that its flattened side will be presented to that portion of the stopper lying between its vertical parts, the length of the vertical parts of said wire being somewhat greater than the length of the stopper, as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD W. ROBINSON.

Witnesses:

ELGIN C. VERRILL,
ALICE E. WHELAN.