

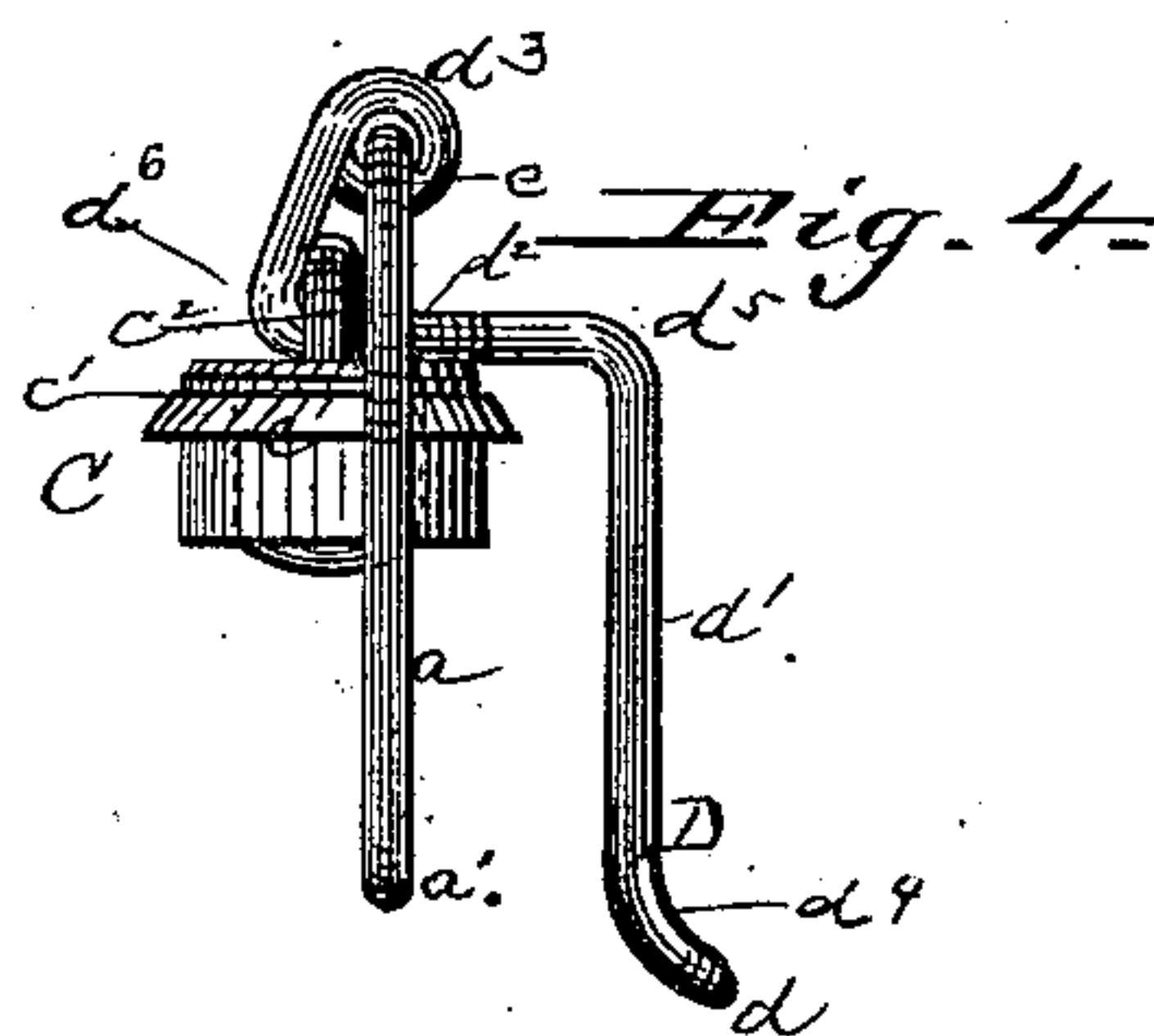
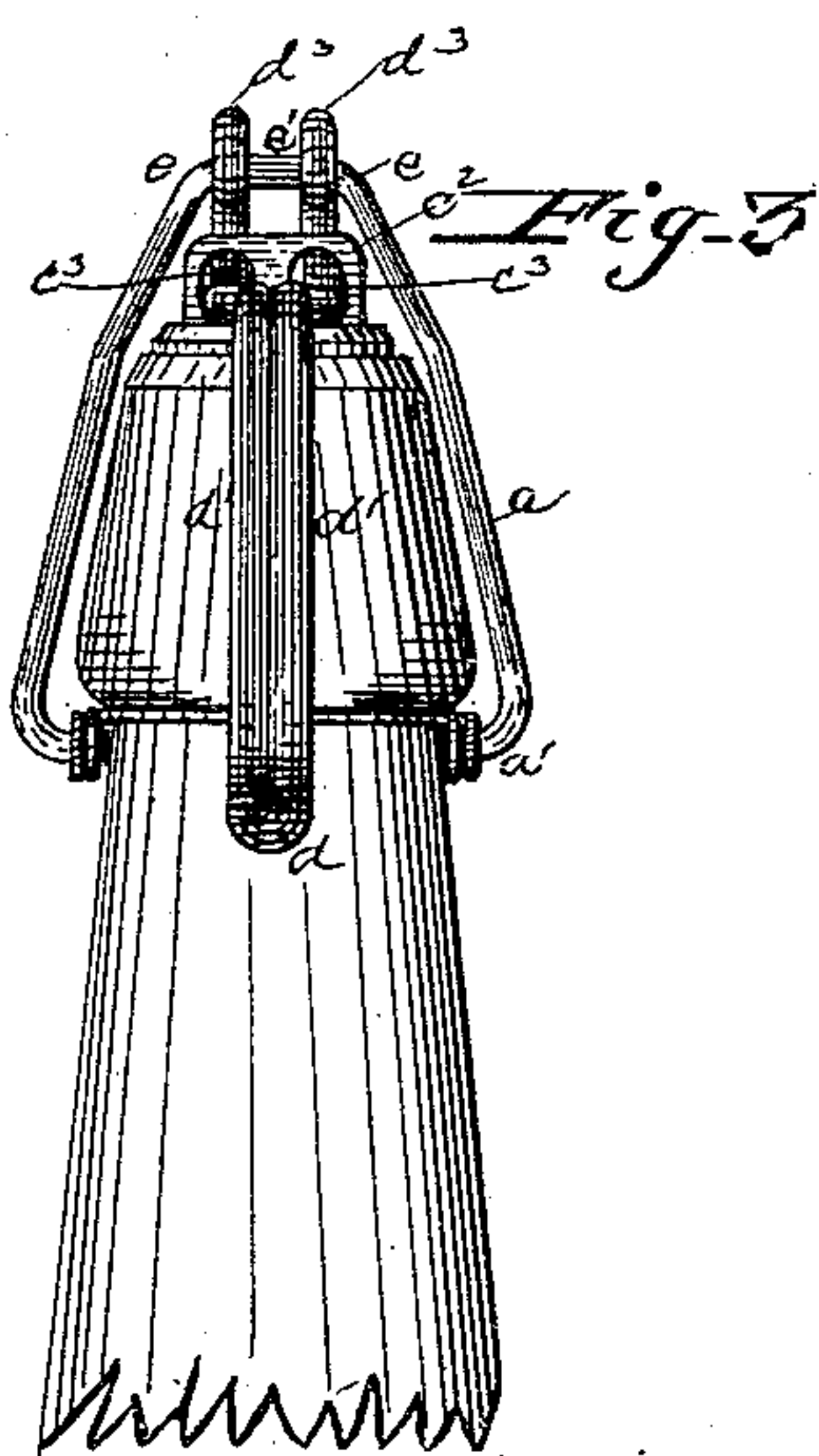
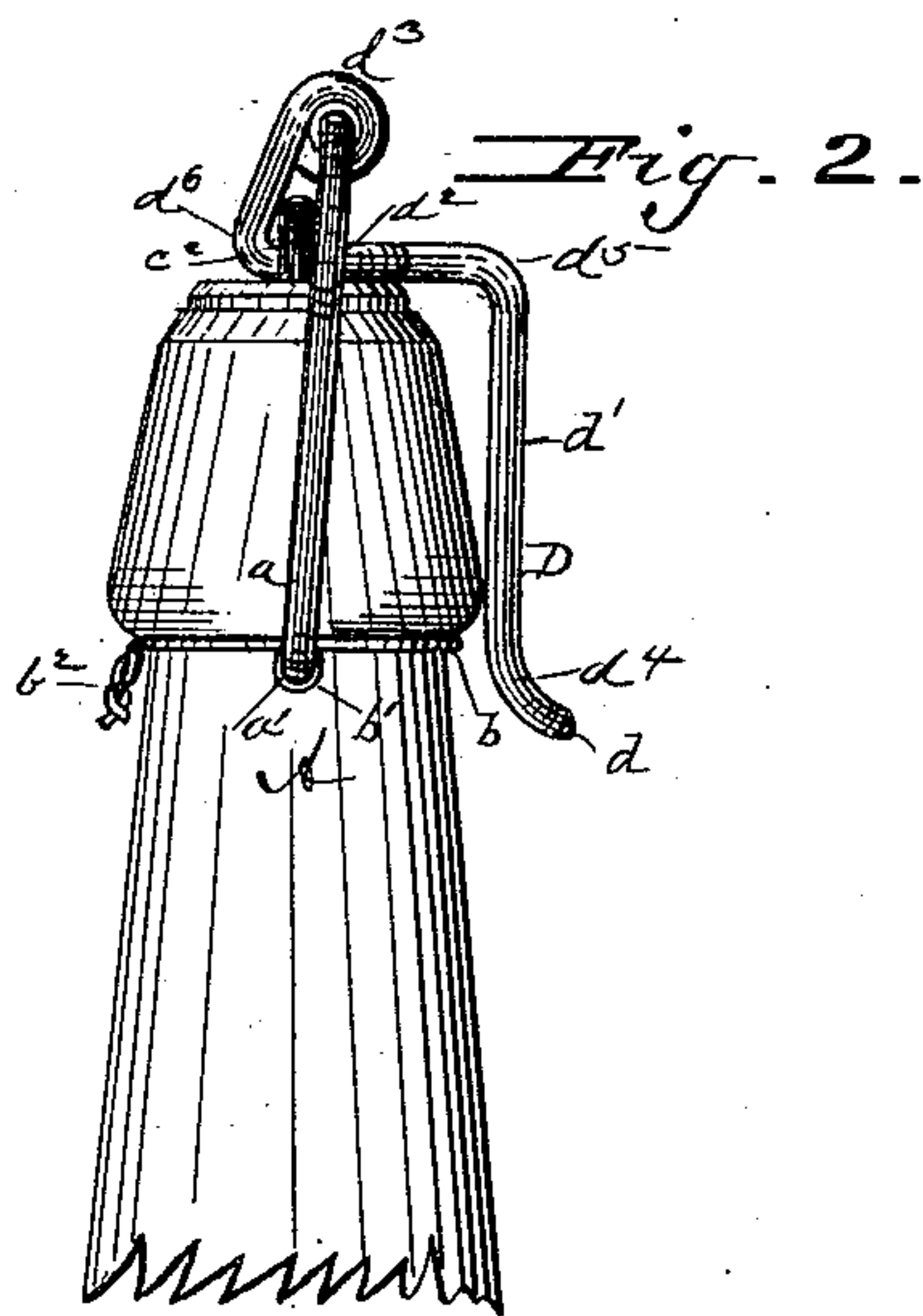
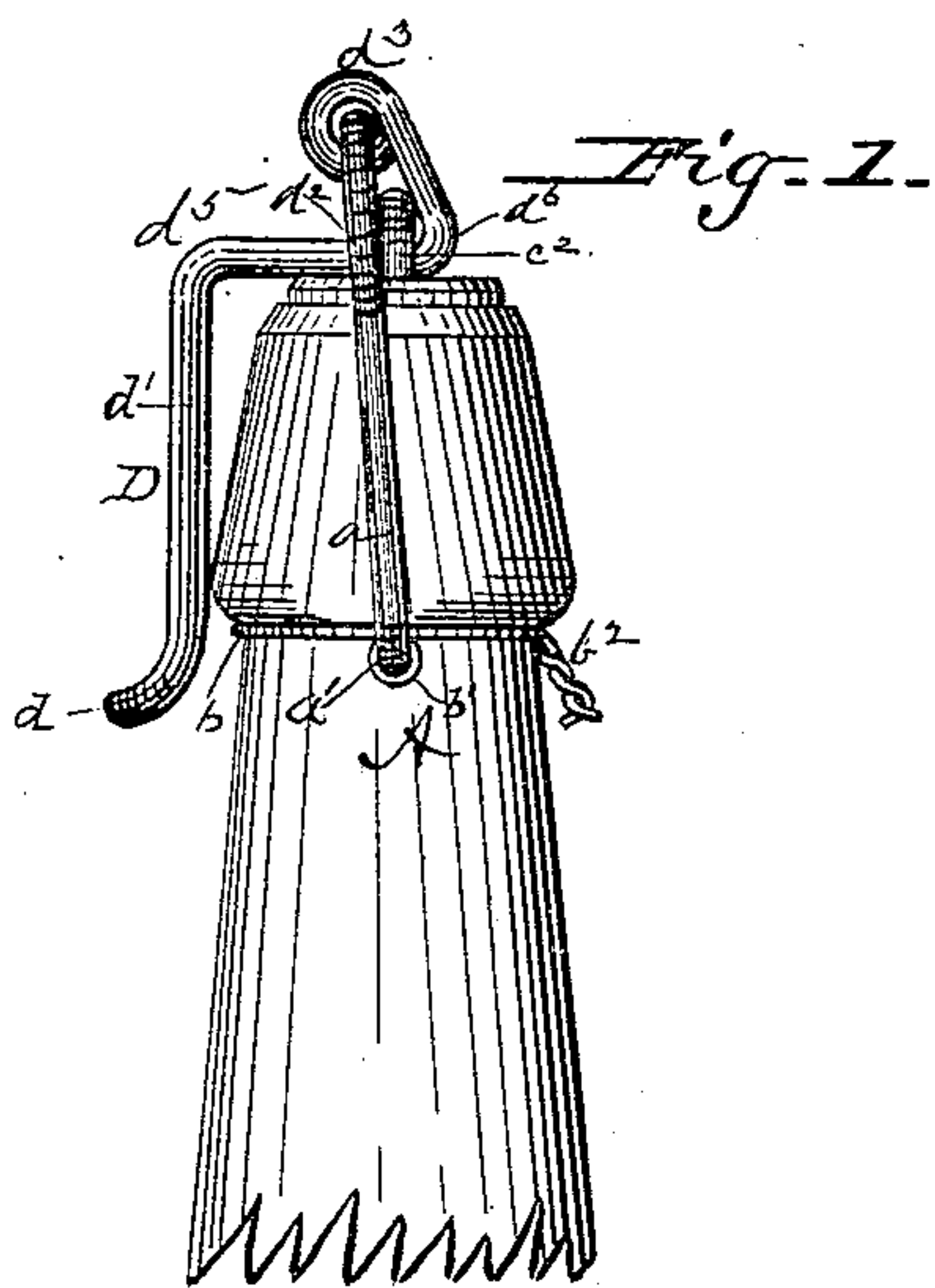
(No Model.)

E. H. SLAYBAUGH & J. M. AKERS.

BOTTLE STOPPER.

No. 353,599.

Patented Nov. 30, 1886.



WITNESSES

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UNITED STATES PATENT OFFICE.

ELY H. SLAYBAUGH AND JOHN M. AKERS, OF ALLIANCE, OHIO.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 353,599, dated November 30, 1886.

Application filed August 2^d, 1886. Serial No. 212,068. (No model.)

To all whom it may concern:

Be it known that we, ELY H. SLAYBAUGH and JOHN M. AKERS, of Alliance, in the county of Stark and State of Ohio, have invented a new and useful Improvement in Bottle-Stoppers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to stoppers for tightly closing the mouths of bottles containing aerated or other liquids, and more particularly to that class of stoppers which are permanently attached to the neck of the bottle by a connection serving to compress the stopper into the neck of the bottle and to draw the stopper out of the neck or mouth of the bottle.

The object of our invention is to produce an attachment for opening and closing the stopper and for permanently connecting the stopper to the bottle, which shall be fully as strong and durable as any heretofore devised, but which shall be much more simple and cheap and efficient in action than any previous device of the kind so far as we are aware.

To these ends our invention consists in the peculiar and novel construction and arrangement of the device, as hereinafter described and claimed.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the neck and mouth of a bottle with our improvement applied thereto. Fig. 2 is a similar view from a point directly opposite to that of Fig. 1. Fig. 3 is a similar view from a point midway between those of Figs. 1 and 2. Fig. 4 illustrates the bail, the lever, and the plug detached.

In the said drawings, *a* designates the bail, which serves to connect the device to the neck *A* of a bottle, said bail being of thick wire bent in an approximately U shape and turned inwardly at its ends, as shown at *a'* *a'*. A smaller wire, *b*, encircles the neck *A* of the bottle just below its mouth and is twisted or coiled around the ends *a'*, as at *b'*, to pivotally connect the bail to the neck of the bottle, and the ends of said wire *b* are twisted or otherwise secured together, as at *b²*.

The plug or stopper *C* is of any suitable form, and may be constructed, as shown, of an elastic washer or gasket, *c*, surrounding a solid or rigid central portion having a flat disk-shaped head, *c'*. Upon the head *c'* is formed a lug, *c²*, pierced with two eyes or orifices, *c³*.

D designates the lever or handle for connecting the plug to the bail. This lever consists of a piece of stout wire of suitable length and bent directly upon itself at a point midway of its length, as shown at *d*. From the bend *d* the wire extends in two parallel sections, *d'* *d'*, to the points *d²* *d²*, where said sections or arms *d'* are bent away from each other in segmental form, and where also said arms pass through the eyes *c³* *c³* of the head *c'*. From the points *d²* the arms or sections *d'* *d'* again extend parallel with each other, but considerably separated, as shown, and at their upper ends each of said arms is bent to form a loop, *d³*, which encircles the bail *a*. Moreover the lever *D* is bent outwardly at *d⁴* contiguous to its end *d*, so as to form a thumb-piece by which the required upward and downward pressure is applied to the lever. The lever is also bent at right angles, as shown at *d⁵*, so as to lie along the top of the plug or stopper, and a second right-angled bend, *d⁶*, in opposite direction to the bend *d⁵*, is given to the wire composing the lever *D*, so that said lever shall extend upward to the loops encircling the bail. It will thus be seen that between the bends *d⁵* *d⁶* the lever presents a broad bearing upon the head of the plug or stopper, and that by passing at two points through the lug *c²* of said stopper a very firm operative connection is established. This broad bearing upon the head of the stopper serves to prevent any sidewise displacement of the stopper while being forced into the mouth or neck of the bottle and also insures the even movement of the stopper while being withdrawn from the mouth of the bottle. Hence the operation of inserting and withdrawing the stopper is rendered easy and all wrenching and twisting of the parts of the stopper, and consequently all undesirable wear on the stopper, are avoided.

The device is simple and effective, and answers all of the practical requirements of this class of devices. The upwardly extending

ends of the lever D are bent toward the body portion of said lever, so that when the lever is depressed the bail shall be carried past the center, and thus securely hold the stopper compressed in the mouth or neck of the bottle. In order to further insure the proper action of the lever and to confine its looped ends to their operative position, the upper part of the bail is contracted, as shown at *e*, so that the loops shall act upon a short straight section, *e'*.

Having thus described our invention, what we claim as new, and desire to obtain by Letters Patent, is—

1. In a bottle-stopper, the combination, with the bail and stopper, of the lever and perforated lug, the wires of the former bent at an angle and passing through the perfora-

tions in said lug, and bent around and over the lug and secured to the bail, all constructed and operated as herein set forth.

2. The combination, with the bottle having a neck, A, and a wire, *a*, twisted or bent, as shown at *a'*, of a bail, *b*, the stopper constructed substantially as described, and having the lug with its two perforations, *c*², and a lever, D, composed of a single wire bent upon itself and having the differently-bent portions *d*² *d*³ *d*⁴ *d*⁵ *d*⁶, substantially as and for the purposes described.

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JNO. M. AKERS.

Witnesses:

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