

(No Model.)

J. & C. H. HAHN.
BOTTLE STOPPER.

No. 585,097.

Patented June 22, 1897.

Fig. 1.

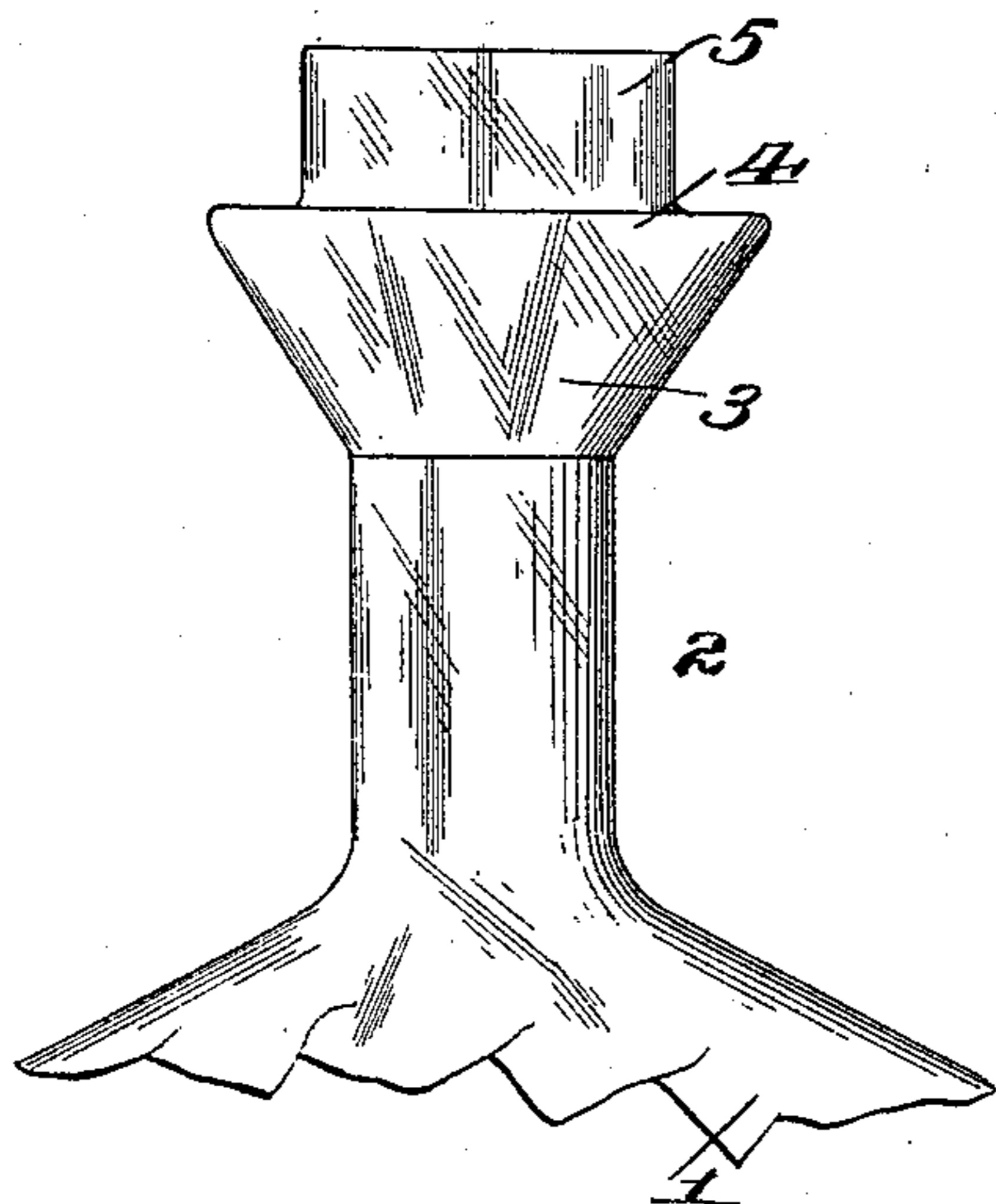


Fig. 2.

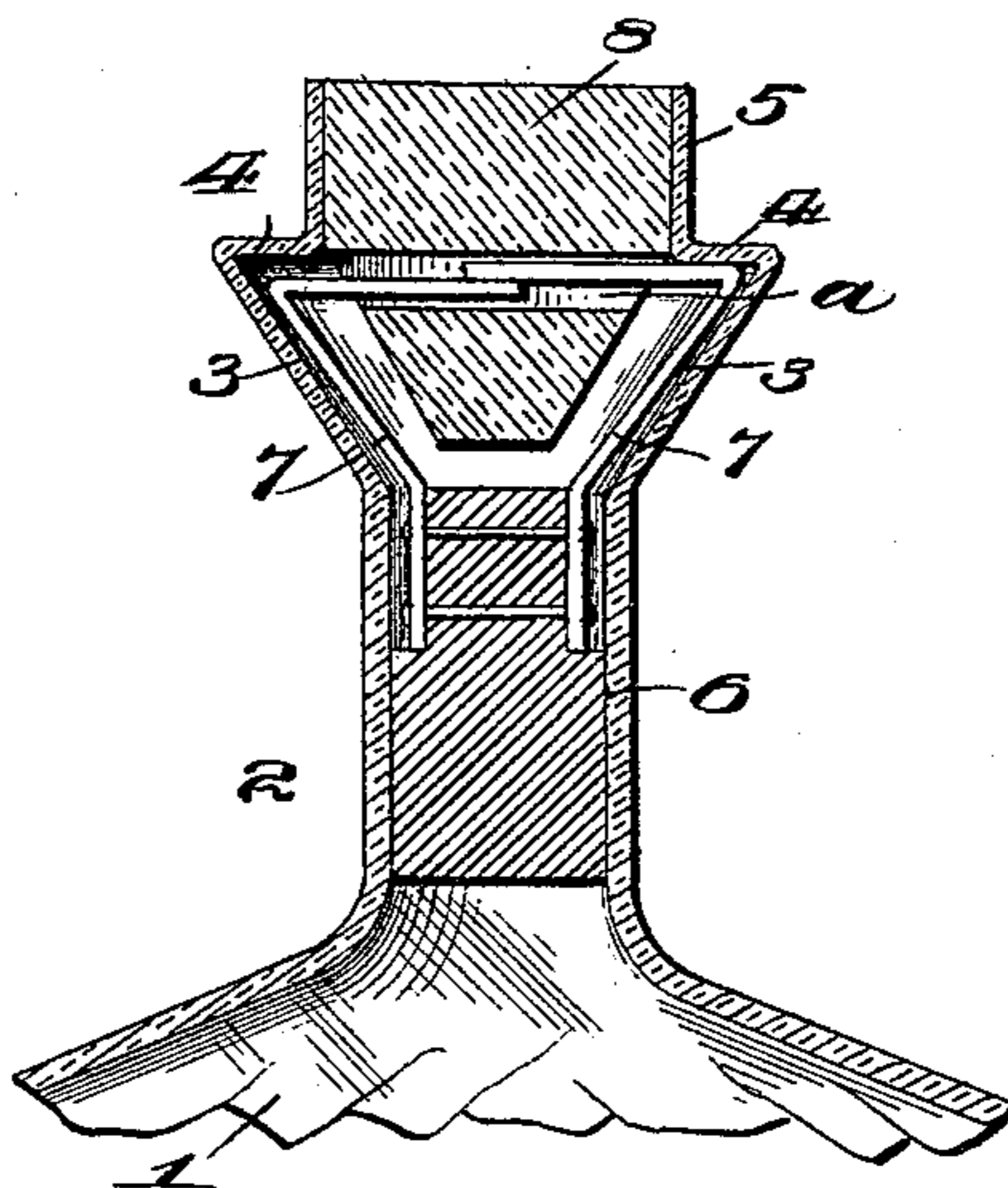
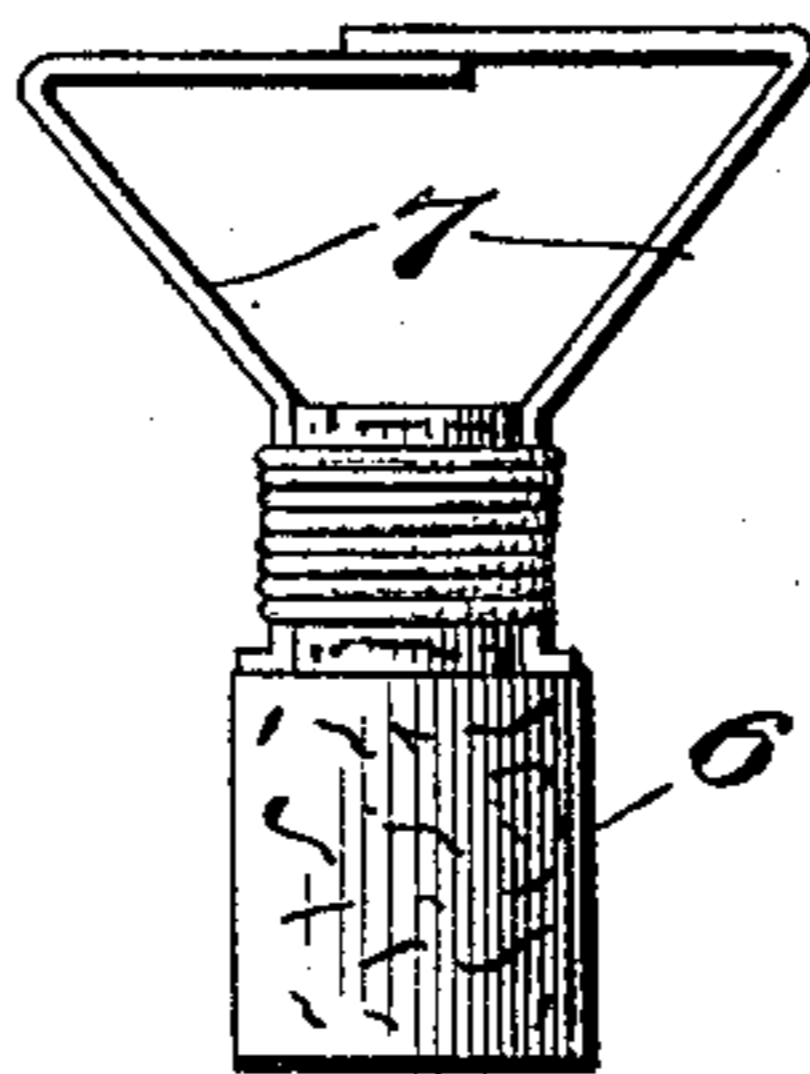


Fig. 3.



WITNESSES

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BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 585,097, dated June 22, 1897.

Application filed February 25, 1897. Serial No. 624,907. (No model.)

To all whom it may concern:

Be it known that we, JACOB HAHN and CHARLES H. HAHN, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bottle-Stoppers; and we 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.

This invention relates to improvements in bottles of that class which are provided with means for closing the openings or necks in such manner that in order to gain access to the contents it becomes necessary to remove a part of the neck, which though it alters the original shape of the bottle does not destroy the usefulness of the same, but merely changes it to one of ordinary construction.

With the above ends in view the invention consists in extending the neck of a bottle to provide a shoulder and employing in connection therewith an ordinary cork stopper having spring-arms which engage the shoulder and a supplemental solid stopper having a transverse opening or opposite recesses which engage the springs to be held securely in place thereby.

The invention further consists in the particular construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation showing a bottle constructed in accordance with our invention. Fig. 2 is a vertical sectional view through the upper part of the bottle, including the neck and showing the attachments with which it is provided. Fig. 3 is a detail view of the cork stopper and spring-arms carried thereby, showing a modification in the manner of attaching the spring members thereto.

In the drawings the numeral 1 designates the bottle, and 2 the lower part of the neck thereof, practically forming the permanent neck of the bottle and being of increased thickness with respect to the upper part. From the permanent neck 2 the upper part is flared outwardly to present the inclined wall 3, from

which it is turned inward, forming the shoulder 4, communicating with the mouth or terminal portion 5 of said neck. Thus it will be seen that the only change which is made in an ordinary bottle is to extend the neck in order to present the parts herein mentioned.

In connection with the neck of a bottle presenting the inclined wall 3, shoulder 4, and mouth 5, we employ certain devices by which the contents of the bottle are sealed in such manner as to necessitate the removal of the extended part of the neck in order to gain access to the bottle. These devices consist of a stopper 6, preferably of cork, to which are rigidly secured members 7 7 of spring metal, which are each bent outwardly and inwardly at an abrupt angle to conform to the corresponding shape of the upper part of the neck below the mouth thereof. The inturned free ends of these springs preferably overlap, as shown, though it is not really necessary that they should. With these springs, or rather the free ends thereof, engages the solid stopper 8, the lower end of which is tapered to a transverse opening *a* therein, the upper part of said stopper conforming to the shape of the mouth 5 of the bottle.

In sealing or closing a bottle the neck of which is constructed as shown and described the cork stopper 6, carrying the spring arms or members 7 7, is forced into the neck until it engages the lower or permanent part 2 thereof, when the said spring members will separate on entering the enlarged portion of the neck. The solid stopper is now forced into the upper end or mouth of the bottle upon the inturned ends of the spring members 7, and when said stopper is forced into engagement with the cork stopper below the said ends of the spring members they will ride upon the tapered portion of the solid stopper to engage the transverse opening *a* therein. It will thus be seen that the neck is effectually closed and any attempt to remove the solid stopper 8 would be frustrated by the inturned ends of the spring members engaging the said solid stopper at the bottom of the transverse opening therein. Therefore, in order to gain access to the contents of a bottle provided with these devices it becomes necessary to break away a part of the

neck. When this is done, the solid stopper 8 may be removed and the spring members 7 7 then form grasping means by which the cork stopper can be removed. It will be understood that the spring members 7 7 may be secured to the cork stopper in any suitable manner, either by means of a wood or metal section, as illustrated in Fig. 1, or by reducing the upper end of a cork stopper and attaching the members thereto by a cord or wire wrapping, as shown in Fig. 3. It will also be understood that the shape of the mouth above the enlargement in the neck could be changed, and that instead of providing the solid stopper with a transverse opening opposite recesses could be formed therein and obtain the same end. The lower part of the neck could be tapered to prevent the cork stopper being forced downward.

In any event a bottle and closure therefor is provided that will necessitate a change in the configuration of the bottle before the contents can be removed, thereby providing against the bottle being refilled in an attempt to pass it off for the original article.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In combination with a bottle presenting a neck having an enlargement therein, of a stopper carrying the spring members which enter said enlargement and present inturned ends, and a supplemental stopper having a transverse opening or opposite recesses with

which the spring members engage, substantially as shown and for the purpose set forth. 35

2. The combination with a bottle presenting a neck having an enlargement therein, of a stopper fitting within the neck below the enlargement and carrying spring members which extend into said enlargement and are provided with inturned ends, and a supplemental stopper tapered at its lower end and provided with a transverse opening or opposite recesses, substantially as shown and for the purpose set forth. 40 45

3. The combination with a bottle having a neck, the lower part of which is of increased thickness to present practically a permanent neck, said neck being extended outward at an inclination and then abruptly inward to form a shoulder from which projects the mouth, of a stopper having spring members secured to the upper end thereof which project outward and then inward to fit the corresponding part of the neck of the bottle, and a solid stopper having a transverse opening or opposite recesses to engage the inturned ends of the spring members, substantially as shown and for the purpose set forth. 50 55 60

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JACOB HAHN.

CHARLES H. HAHN.

Witnesses:

H. W. ASHER,

PHILIP HUGO.