

(No Model.)

J. FITHIAN.  
BOTTLE SNAP.

No. 480,458.

Patented Aug. 9, 1892.

Fig. 1.

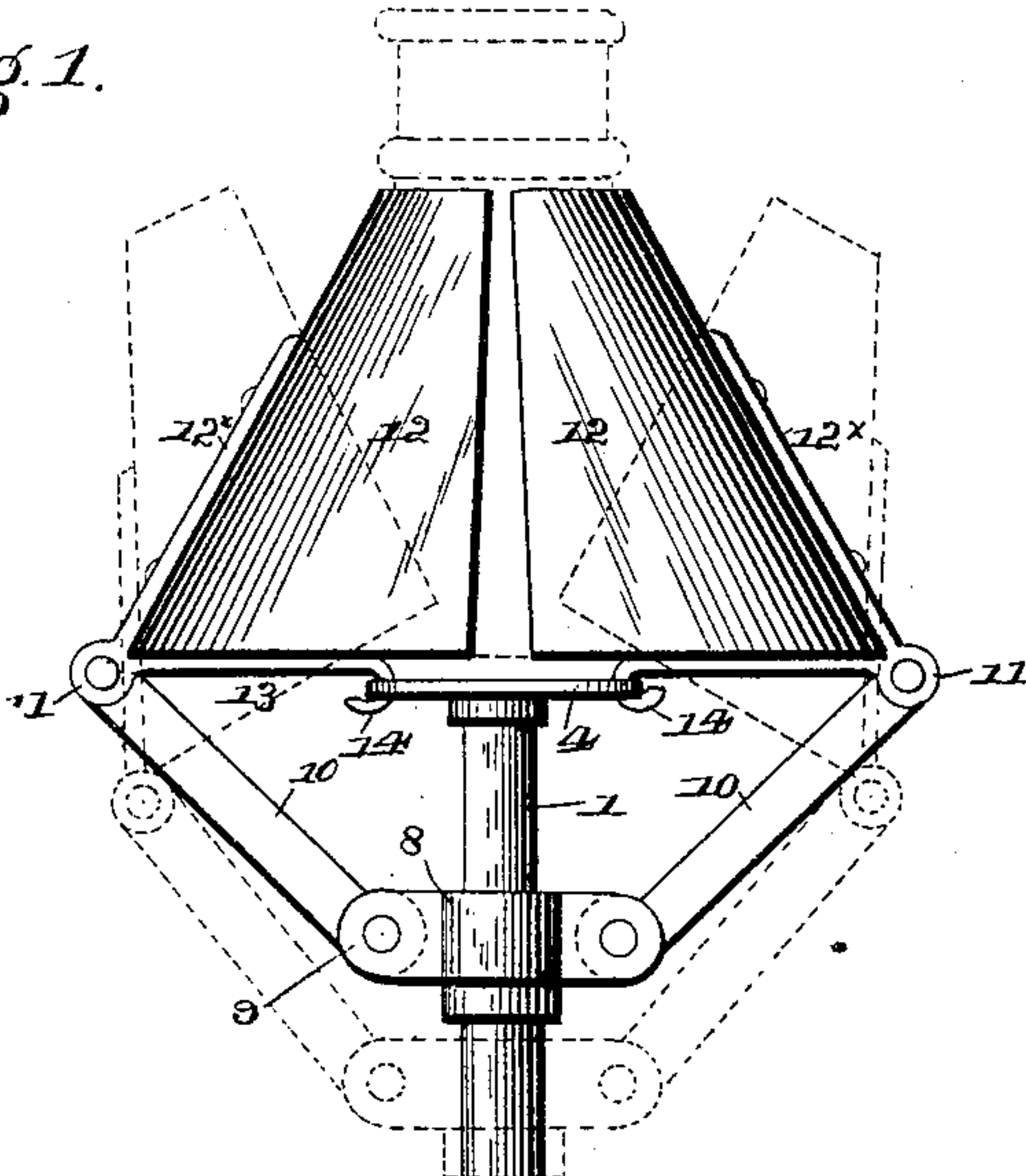


Fig. 2.

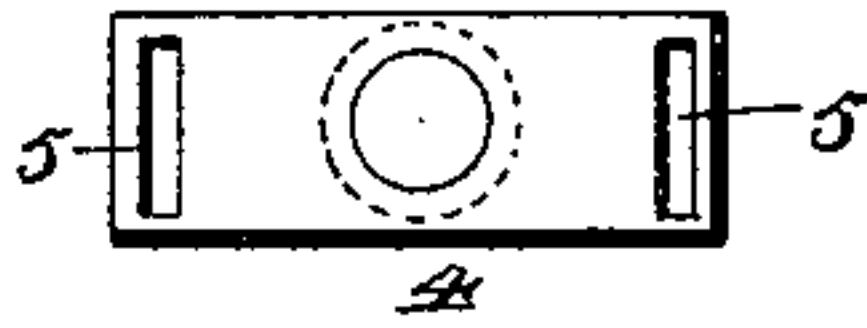


Fig. 3.

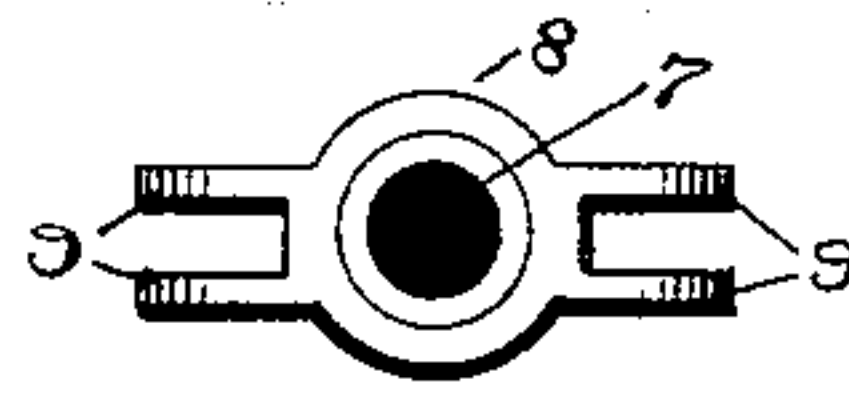


Fig. 5.

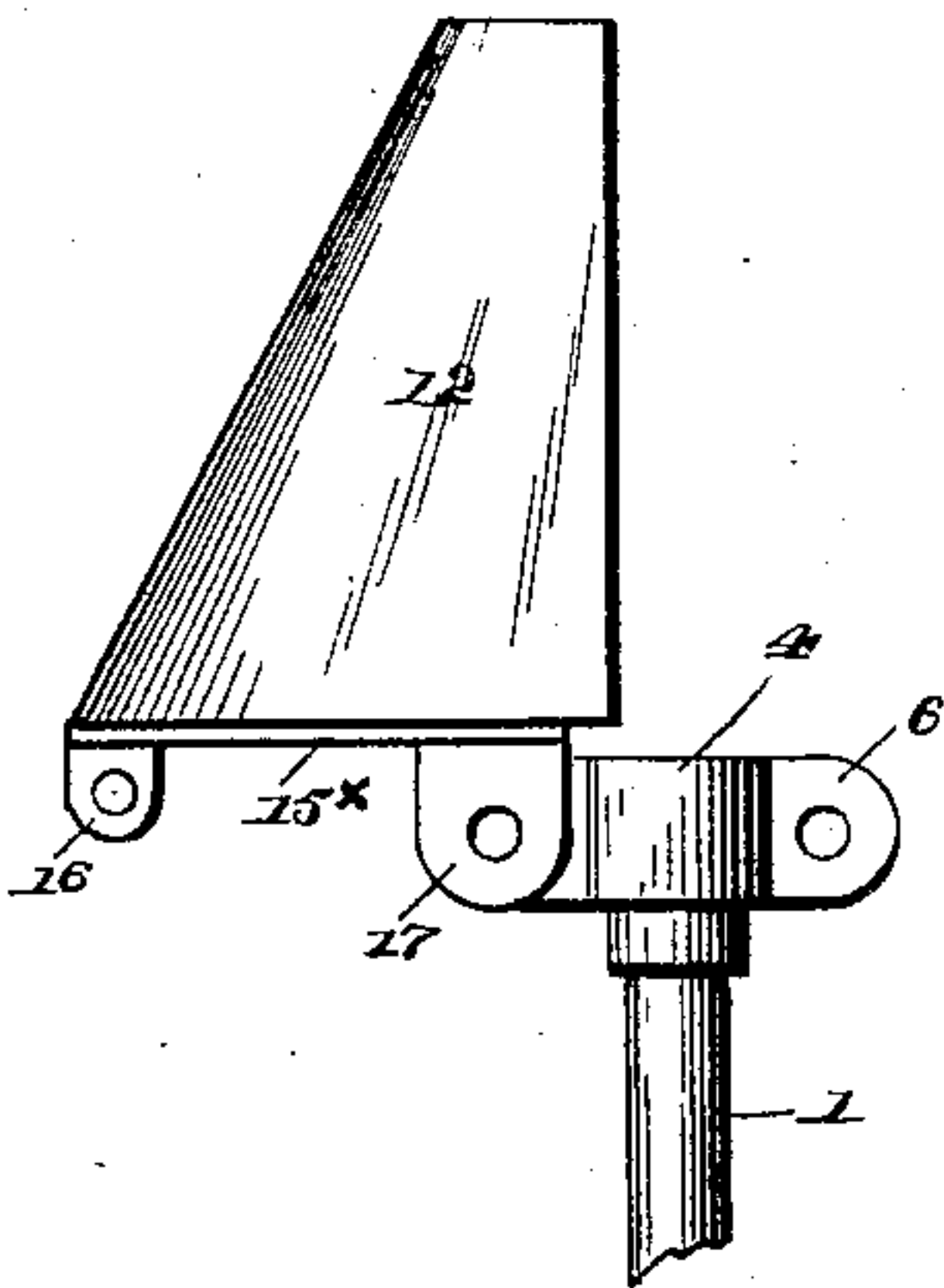


Fig. 4.

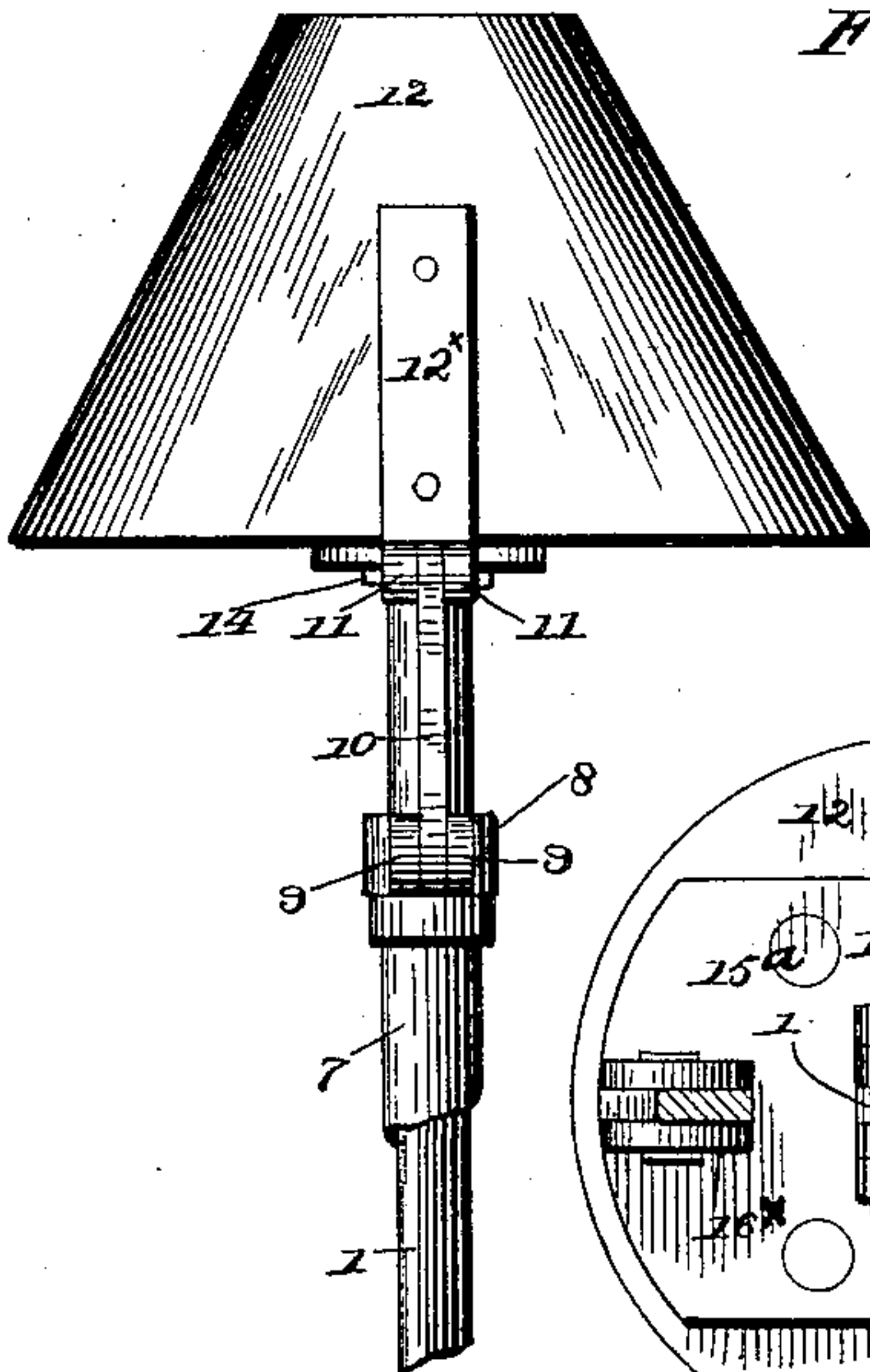
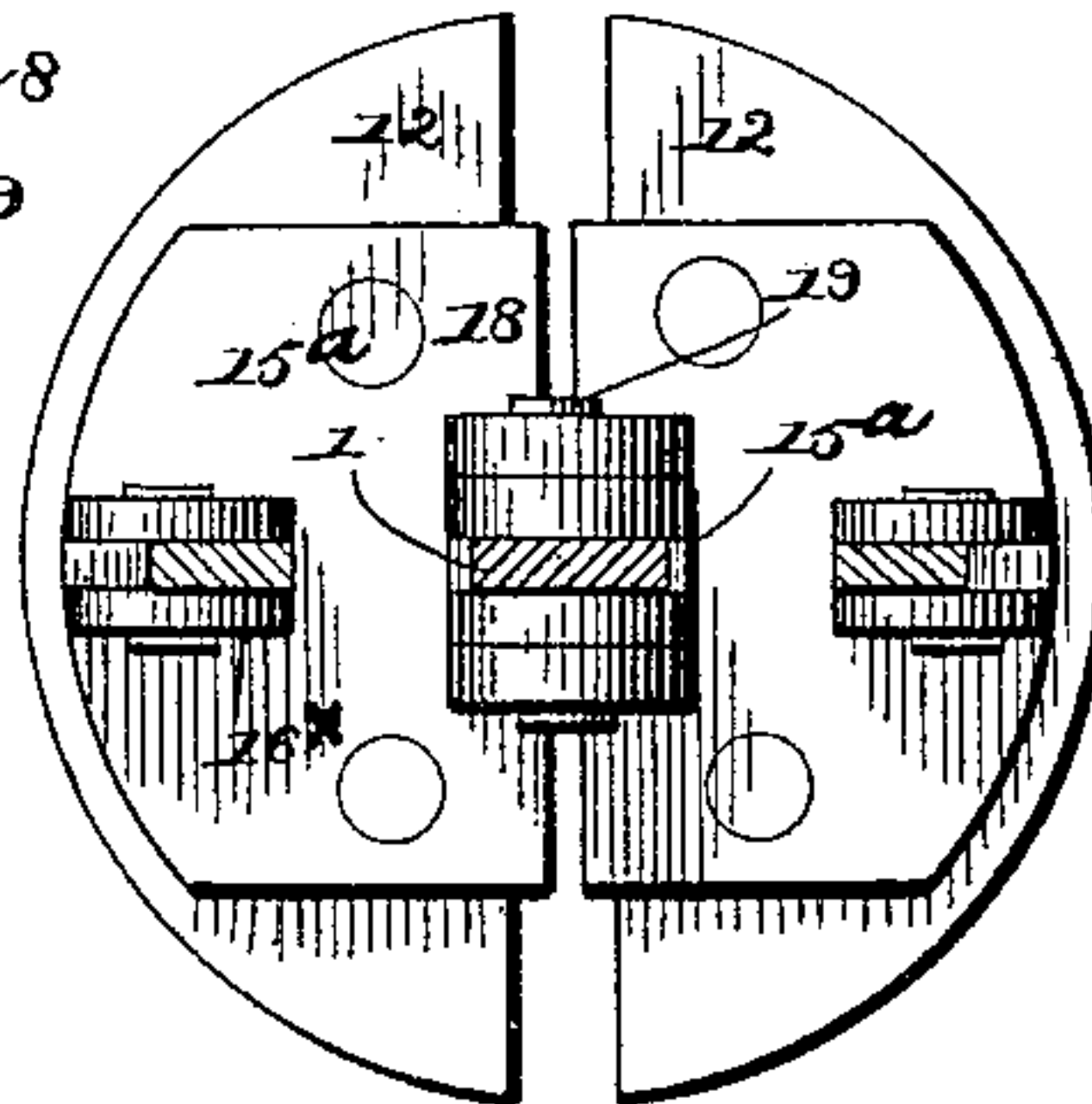


Fig. 6.



Witnesses

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# UNITED STATES PATENT OFFICE.

JONATHAN FITHIAN, OF BRIDGETON, NEW JERSEY.

## BOTTLE-SNAP.

SPECIFICATION forming part of Letters Patent No. 480,458, dated August 9, 1892.

Application filed January 28, 1892. Serial No. 419,554. (No model.)

*To all whom it may concern:*

Be it known that I, JONATHAN FITHIAN, a citizen of the United States, residing at Bridgeton, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Bottle Snaps or Holders; and I do 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, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to devices known in the art as "bottle-snaps" for holding bottles in the operation of finishing and firing the necks thereof; and it comprises a pair of jaws hinged to the end of a handle and adapted to be opened and closed and to clamp and hold between them the bottle to be operated upon.

The invention consists of the novel combination and arrangement of parts that will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the snap or holder, showing in dotted lines the position of the parts when the jaws are open for the insertion or removal of a bottle. Fig. 2 is a top plan view of the head of the handle to which the holding-jaws are hinged. Fig. 3 is a plan view of a head movably mounted on the handle to which the links or connecting-bars from the jaws are secured. Fig. 4 is an edge elevation of a portion of the device shown in Fig. 1. Fig. 5 is an elevation of a portion of the device shown in Fig. 1 and illustrating a slight modification in the construction. Fig. 6 is a bottom plan view, partially in section, of a further connection between the jaws and the handle, which is slightly varied from the other form shown.

Similar numerals of reference are employed to indicate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates the handle, which comprises a straight rod, having at its lower end a square-shouldered head 2, which forms a seat, and is surrounded by a spiral spring 3, said handle having a cross-head 4 at the upper end thereof, as shown in Figs. 1, 2, and 5. As shown in Figs. 1 and 2, the said head 4 is constructed

in the form of a plate, having slots 5 at opposite ends thereof, to which the ends of the jaws are hinged, as will be more fully hereinafter set forth. As shown in Fig. 5, the said head 4 is shown constructed with apertured ears 6, adapted to be connected to the jaws.

The numeral 7 indicates a tube or sleeve through which the handle 1 passes and is capable of longitudinal movement on the said handle against the action of the spring 3. The upper end of the said tube or sleeve carries a cross-head 8, having ears 9, between which are pivotally held the lower ends of links or bars 10, the upper ends of which are pivotally connected to ears 11, carried at the outer portion of jaws 12. The jaws 12 are of conical form and concavo-convex in contour; but it will be understood that they may be made in any suitable size and shape to adapt them to hold bottles of varying forms and dimensions. As shown, however, they are adapted to hold conical bottles, such as are commonly employed for containing ink and mucilage. It will be observed that the two jaws form a hollow frustum of a cone, with an opening at the top between the same, through which the neck of the bottle projects. As shown in Figs. 1 and 4, the ears 11 are integrally formed at the intersection of angularly-disposed arms 12<sup>x</sup> and 13, the arms 12<sup>x</sup> extending upward over the outer surfaces of the jaws 12, and the arms 13 extending under the base portion of the said jaws to form a bottom support for the same, and having their inner ends hooked, as at 14, as shown in Figs. 1 and 4, to engage the slots 5 in the opposite ends of the head 4, as shown by Figs. 1, 2, and 4. By this means a hinged connection for the inner portions of the lower parts of the jaws is formed, and thereby insuring a positive return to their normal position after they have been spread apart to receive a bottle, as fully shown in Fig. 1. As shown in Fig. 5, the bottom portion of each of the jaws 12 is formed with or has attached thereto a plate 15<sup>x</sup>, having ears 16 depending from the outer portion thereof to pivotally engage the upper ends of the links or bars 10, and larger ears 17 at the inner portion of said plate, adapted to engage the ears 6, which are formed with the head 4 in this instance, and it will be seen that the same pivotal or hinged action



will result. As shown in Fig. 6, plates 15<sup>a</sup> are employed and supplied with ears 16<sup>x</sup> at the outer portions thereof, and also with inner ears 18, adapted to be fitted against each other and having an intervening space between the same, adapted to embrace the upper end of the handle 1, and all of said parts being connected directly to said handle by a pivot-bolt 19, extending therethrough.

10 In operation the sleeve 7 is moved against the action of a spring 3 to open the jaws 12, which is accomplished by the drawing action of the links or bars 10, connected to the head 8, which moves downward with the sleeve 7 and draws on the outer ends of the jaws to cause the latter to tilt backward, as shown in dotted lines, on the central hinged connection thereof, as heretofore described in varied forms. The bottle is placed in position against the bottoms or beds of the jaws, and the sleeve is then allowed to return to its normal position to gradually cause the jaws to clamp the bottle, as fully shown in Fig. 1. As heretofore stated, the jaws are of such proportion that they will permit the neck of the bottle to project above the same and thereby position said neck in such manner that it may be suitably fired or finished, and when said operation has been completed the sleeve may be then operated to release the bottle, as before set forth.

30 The preferred form of my invention is illustrated in Fig. 6, in which the jaws are hinged directly to the end of the handle by a single common pivot, thus dispensing with one pivot-bolt necessary to be employed in the other

form of the invention. In fact, the essential improvement claimed by me over existing devices as heretofore patented resides in the simple combination of elements, whereby an automatic snap of inexpensive and durable construction is provided with a minimum number of pivots and parts.

Having thus described the invention, what is claimed as new is—

1. A bottle snap or holder comprising suitably-shaped jaws hinged at or near their inner lower adjacent edges to a suitable rigid cap or ears on the handle, a sliding sleeve or tube on the handle, held by a spring normally in elevated position, and suitable ears upon the upper end of said sliding tube or sleeve, which ears are connected directly to the outer lower edges of the jaws by single bars or links pivoted at each end, substantially as set forth.

2. In a bottle-snap, suitably-shaped ing-jaws having their inner lower adjacent edges hinged directly to the end of the handle by a single common pivot-bolt or rivet and their outer lower edges directly connected to a sliding tube or sleeve on said handle by single bars or links pivoted at each end, substantially as set forth.

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

JONATHAN FITHIAN.

Witnesses:

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