

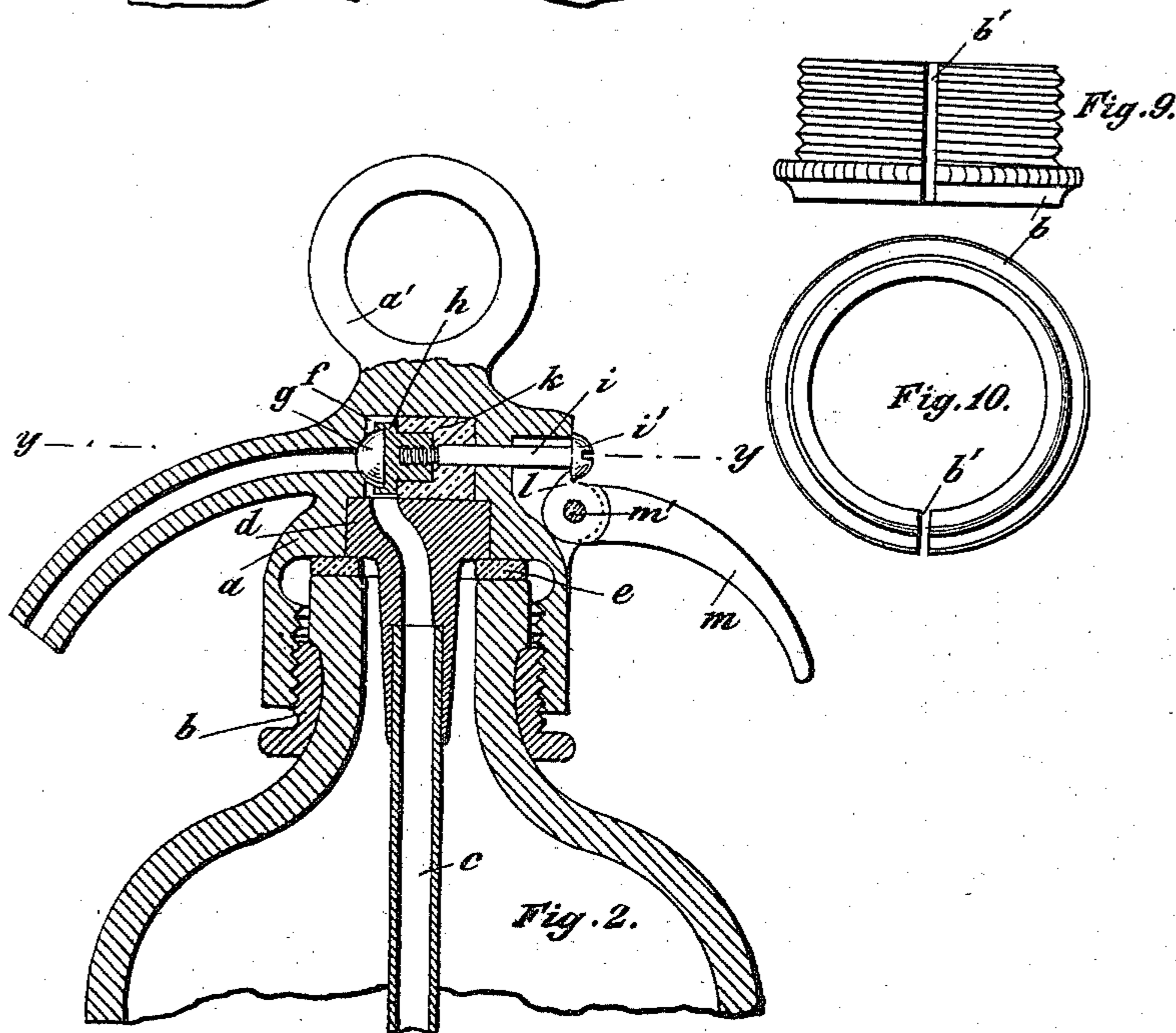
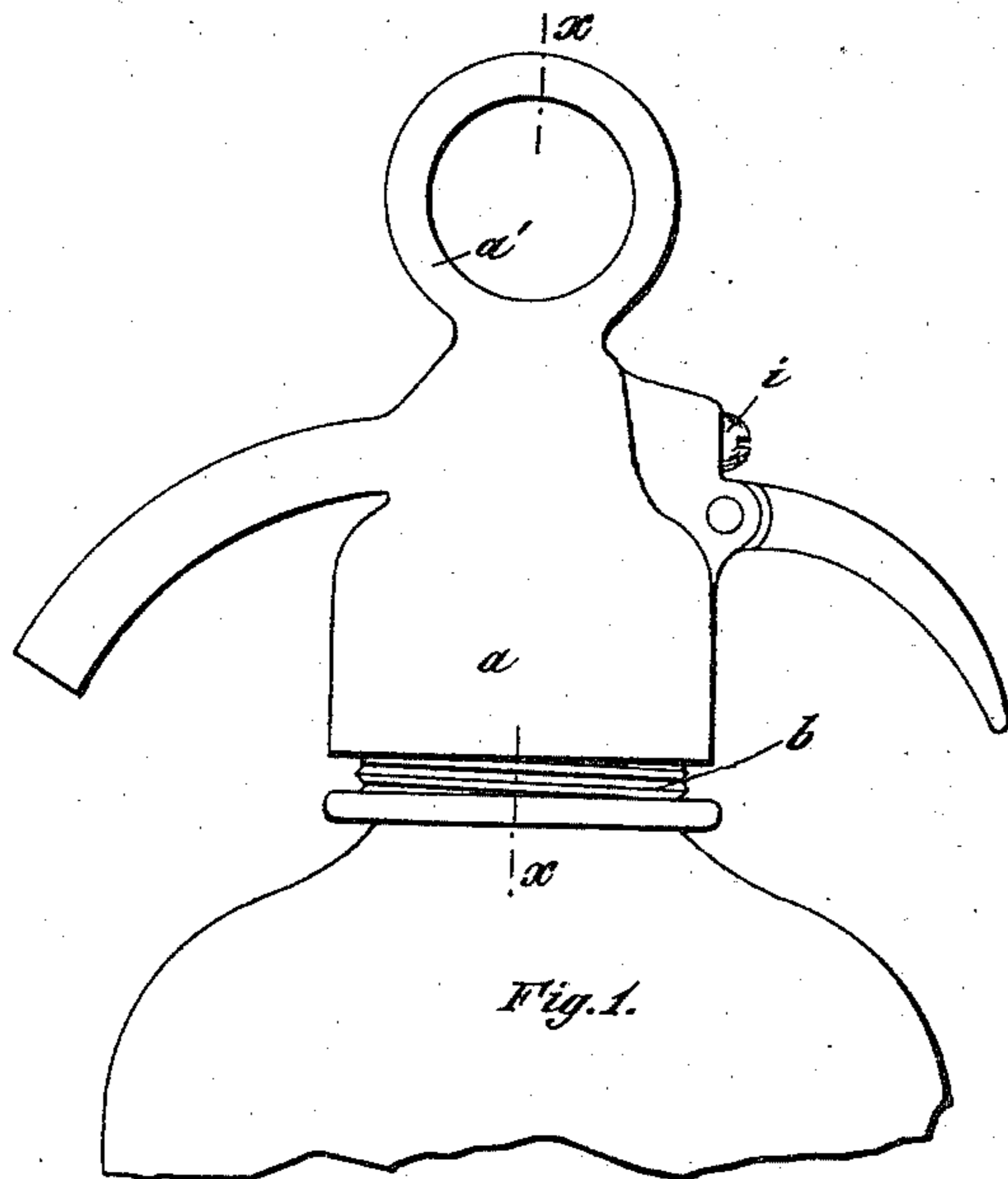
(No Model.)

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J. MACEK.
DEVICE FOR CLOSING BOTTLES.

No. 573,094.

Patented Dec. 15, 1896.



Witnesses,
Chas. W. Parker.
Jos. H. Milane.

Inventor,
Johann Macek,
by Graham Low
Asso Attys.

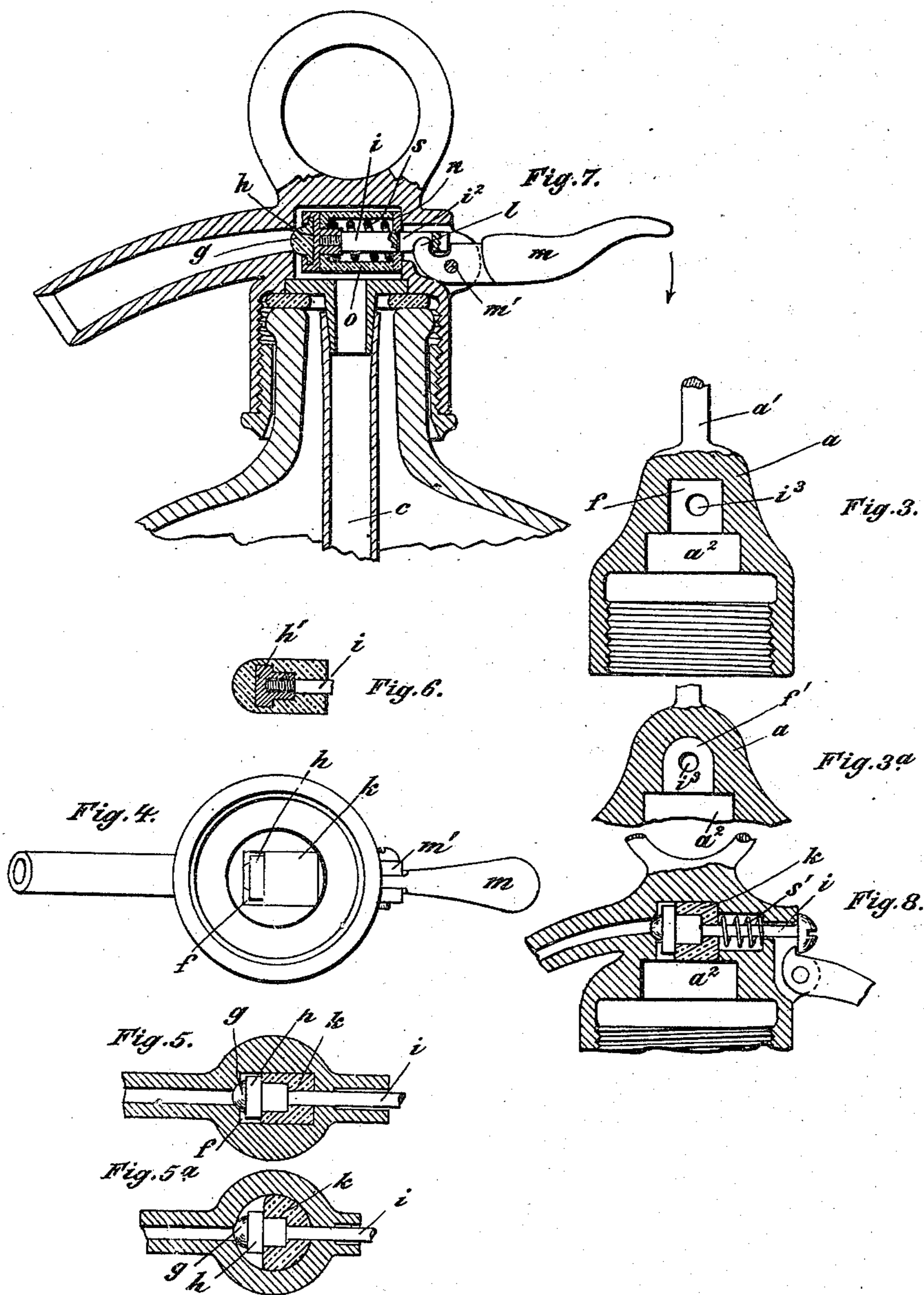
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UNITED STATES PATENT OFFICE.

JOHANN MACEK, OF BUDA-PESTH, AUSTRIA-HUNGARY, ASSIGNOR TO
ALEXANDER FRANKL.

DEVICE FOR CLOSING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 573,094, dated December 15, 1896.

Application filed November 20, 1894. Serial No. 529,786. (No model.) Patented in Hungary June 23, 1894, No. 652, and in Switzerland October 29, 1894, No. 9,175.

To all whom it may concern:

Be it known that I, JOHANN MACEK, a subject of the Emperor of Austria-Hungary, residing at Buda-Pesth, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Devices for Closing Bottles or other Vessels Containing Liquids Saturated with Gaseous Acids or Vaporuous Gases; 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.

This invention has been patented in Switzerland October 29, 1894, numbered 9,175, and in Hungary June 23, 1894, numbered 652.

The subject of this invention is a siphon-head which is of very simple construction, which acts with certainty, and which requires only about one-third of the material required in the manufacture of other siphon-heads.

In order that my invention may be the better understood, I now proceed to describe the same, reference being had to the accompanying drawings and to the letters marked thereon.

Figure 1 is a side elevation of the siphon-head ready for use. Fig. 2 is a vertical section thereof. Fig. 3 is a vertical section through the body of the siphon-head on line xx of Fig. 1. Fig. 3^a is a modification of Fig. 3. Fig. 4 is a plan of the siphon-head seen from below when unscrewed from the bottle. Fig. 5 is a horizontal section on the line yy of Fig. 2. Fig. 5^a is a modification of Fig. 5. Fig. 6 shows a method of constructing the valve plug or stopper. Fig. 7 is a modification of Fig. 2. Fig. 8 is a special form of construction of the siphon-head shown in vertical section when taken off the bottle; and Figs. 9 and 10 are a side elevation and plan, respectively, of a detail.

The siphon-head is of low bell shape. Its upper part carries a ring a' , which gives a pleasing appearance to the device and serves for carrying the bottle, thus avoiding the bending and breaking of the handle. The interior of the lower part of the siphon-head is screw-threaded and screwed over the boss b . (Shown separately in Figs. 9 and 10.)

The boss b is preferably cast with a slot b' , extending over its whole length, to facilitate the placing of the boss b on the neck of the bottle. A recess a^2 , Fig. 3, is provided in the interior of the body of the siphon-head, into which is inserted the flanged projection d of the siphon-tube c . A packing-disk e is placed on the neck of the bottle, so that a tight joint is made (when the siphon-head is screwed on) between the projection d and the siphon-body a on the one hand and the neck of the bottle on the other hand.

A recess f , Fig. 3, is arranged in the body of the siphon-head above the recess a^2 , which serves as a valve-chamber and in which is situated the horizontally-moving valve plug or stopper, as well as the exit-tube, which is closed by the plug. The valve, as shown in Figs. 1 to 5, consists of a stopper g , of india-rubber, carried in the piece h , into which is screwed the screw i , which passes through the wall of the siphon-body. The screw i passes through a sleeve k , of india-rubber, which surrounds also the piece h and completely fills the rear part of the valve-chamber. The elastic force of the sleeve k presses the stopper g , the piece h , and the screw i against the exit and serves also to make tight the opening i^3 , Fig. 3, in the body of the siphon-head, through which the screw i passes.

The valve is actuated by a thumb-lever m , pivoted at m' , the lip l of which engages behind the head i' of the screw i , so that the screw-head i' , and therefore the valve-stopper g , retires from the exit when the lever m is depressed in order to allow of the liquid contained in the bottle under pressure to pass through the tube c into the exit-pipe.

The part of the siphon-head shown in Fig. 3^a is a modification of the form of construction shown in Fig. 3. In this case the valve-chamber f' is arched, while in Fig. 3 it is rectangular. The form of construction shown in Fig. 5^a differs only from that shown in Fig. 5 by the section of the valve-chamber, which is round in Fig. 5^a, while it is rectangular in Fig. 5. The construction of the valve, the action and mode of operation, remain the same.

Fig. 6 shows a modified form of construction of the stopper. In this case the stopper

g and the ring or sleeve *k* are cast in one piece around the core *h'*.

In the modification shown in Fig. 7 a spiral spring *s* is used instead of the india-rubber sleeve *k*. This spring *s* is placed over the screw *i* and presses on the one side against the inner flange of an india-rubber ring *o* and the piece *h*, thus preventing the liquid from coming into contact with the spiral spring.

A slot *i'* is provided in the screw *i* instead of the screw-head *i'* previously described, in which engages the lip *l* of the thumb-lever *m* to operate the valve-stopper.

Fig. 8 shows a modification in which the action of the india-rubber sleeve *k* is supported by a spiral springs *s'*, let into the siphon-head.

What I claim is—

1. A siphon-head having a central transverse valve-chamber, the siphon-tube leading thereto, a discharge-pipe, said head having a spindle in the side thereof leading from said valve-chamber, a valve for closing said discharge-pipe, the spindle carrying said valve, an elongated elastic sleeve inclosing said spin-

dle, and extending transversely of the bottle-neck to said valve-chamber, its end projecting over the mouth of said siphon-tube, and means for contracting said sleeve, substantially as described.

2. A siphon-head having a valve-chamber and a spindle-opening therein, a discharge-pipe leading from said valve-chamber, a valve, the spindle, and the elastic sleeve surrounding said spindle its entire length in the valve-chamber, said sleeve forming a backing for the valve and a protecting-covering for the said spindle and adapted to bear on the rear wall of the valve-chamber around said spindle-opening and to exert a tension to normally keep said valve seated, and means for contracting said sleeve, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JOHANN MACEK.

Witnesses:

MAXIMILIAN MINTZ,
KARL FRANZ.