

(No Model.)

D. O'KANE.
BOTTLE STOPPER.

No. 502,423.

Patented Aug. 1, 1893.

Fig 1

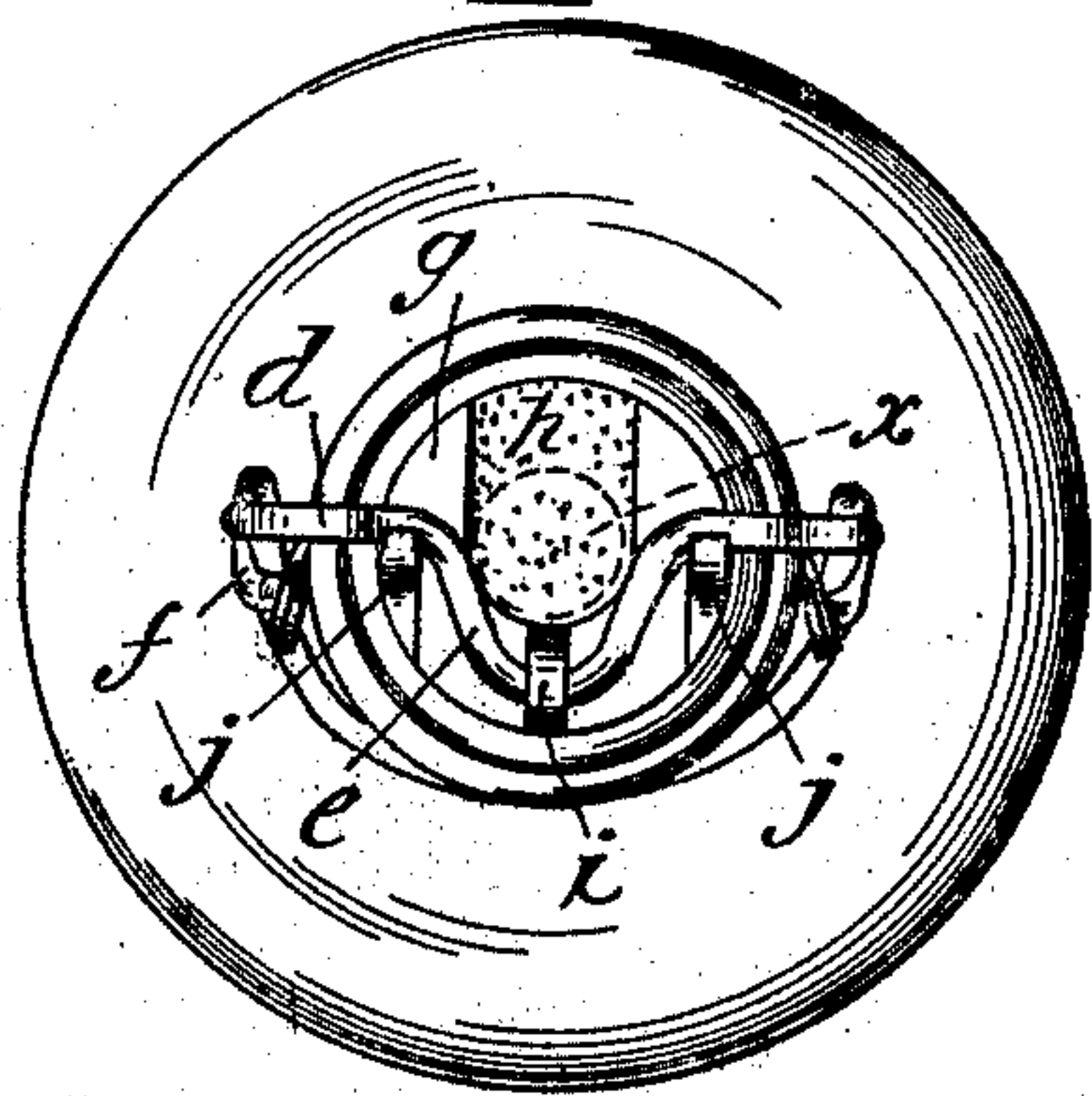


Fig. 2.

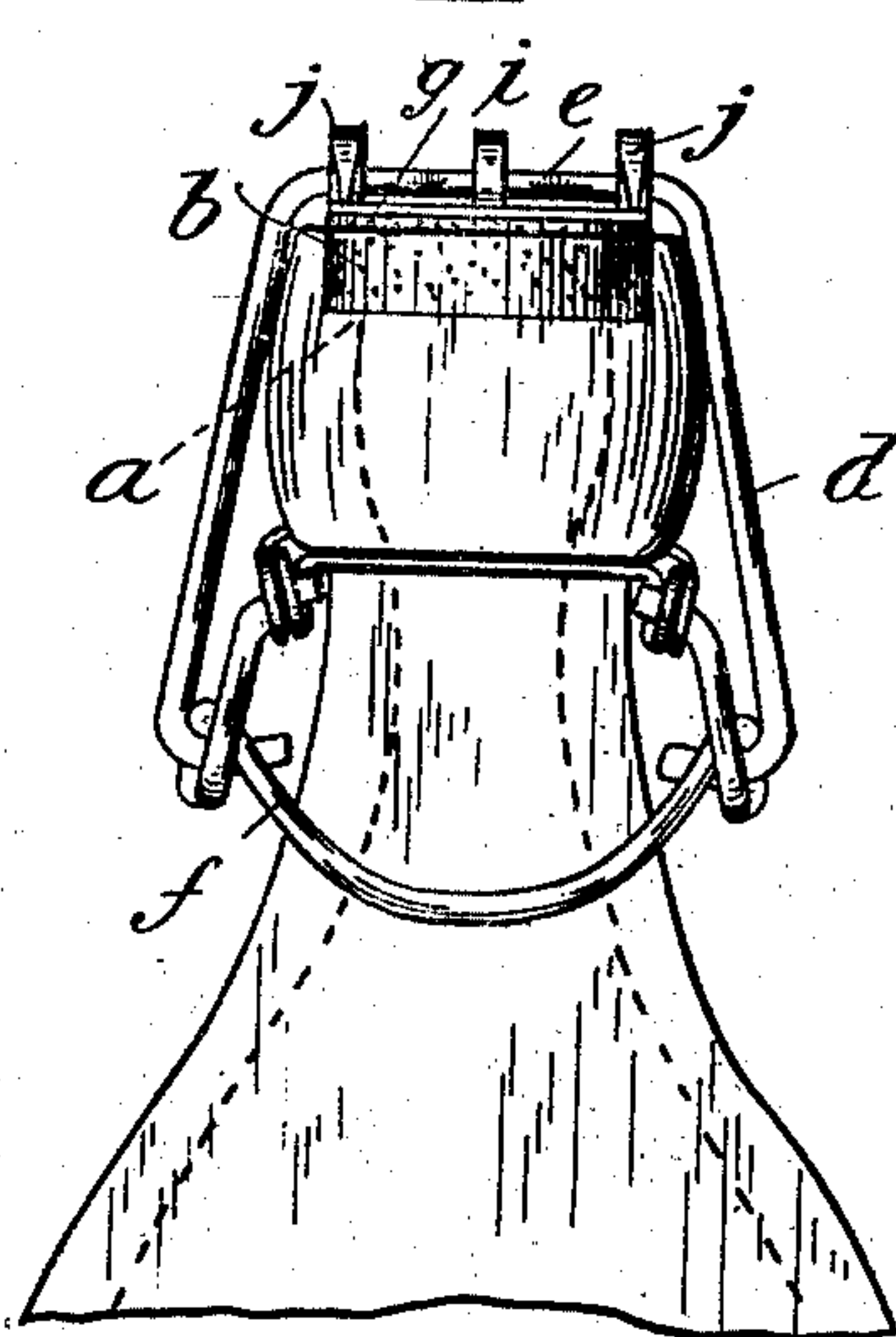
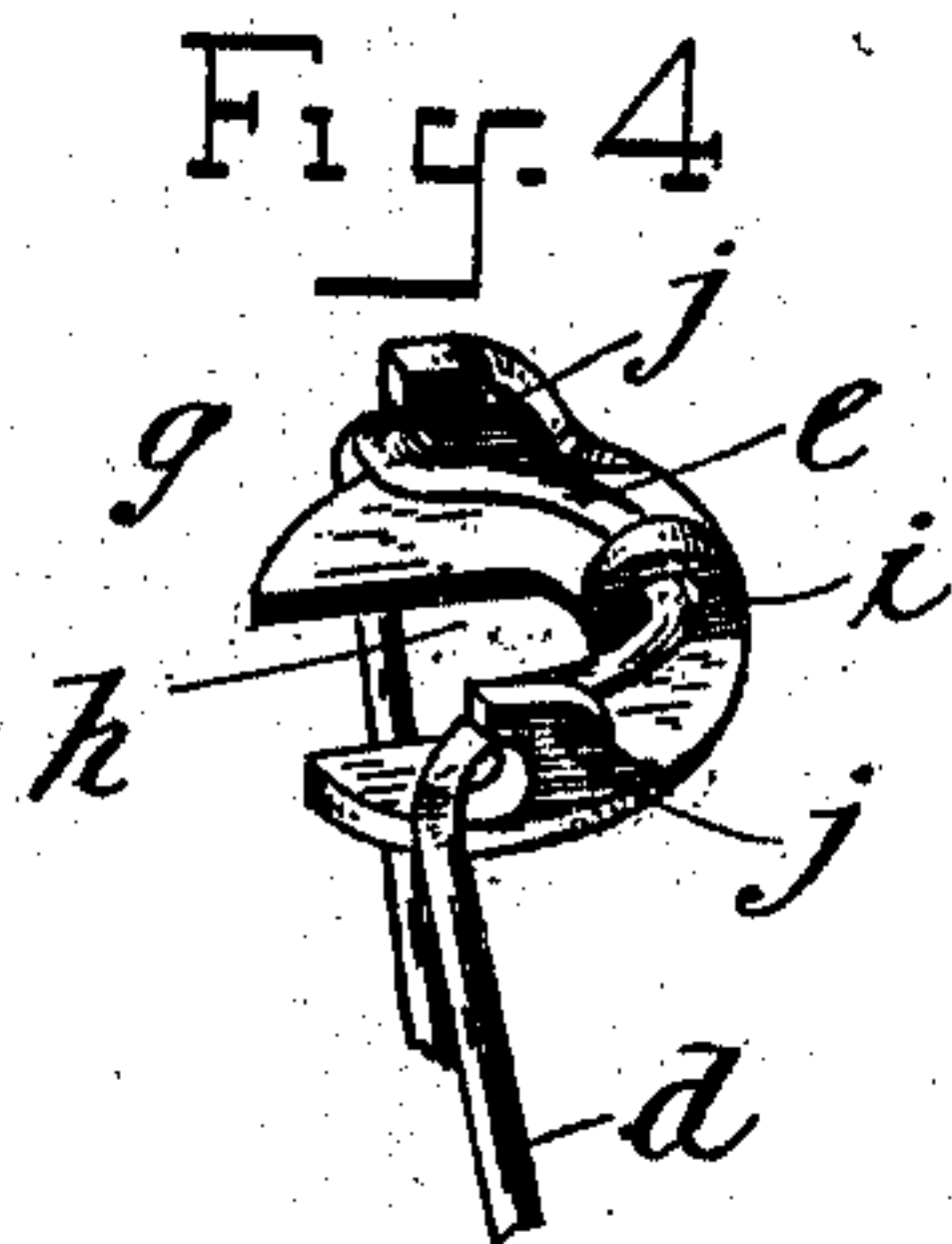
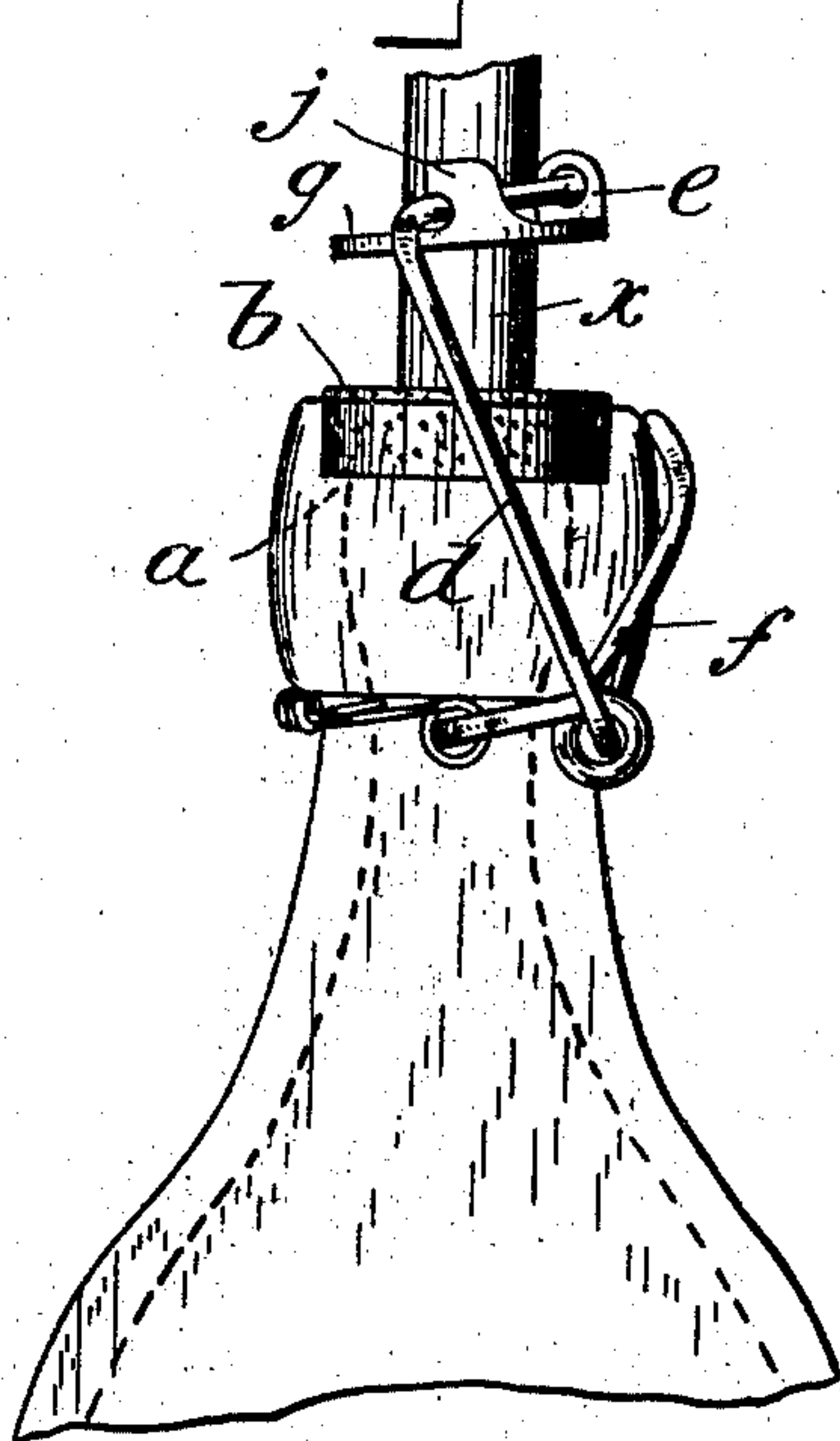


Fig. 3.



Witnesses.

Mr. E. Brown.

M. H. Storer.

Inventor.

Daniel O'Kane
by his Attorneys
Brown Bros.

UNITED STATES PATENT OFFICE.

DANIEL O'KANE, OF BOSTON, MASSACHUSETTS.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 502,423, dated August 1, 1893.

Application filed October 28, 1892. Serial No. 450,262. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O'KANE, a subject of Her Majesty the Queen of Great Britain, and a resident of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact description.

This invention relates to improvements in bottle-stoppers, more particularly of the class wherein an independent disk or section of cork or other compressible material is combined, or employed in conjunction with a clamping plate of metal, a bail for carrying said plate, and with supporting and operating devices for the bail.

The purpose of the present invention is to so construct the device especially with regard to the formation of the clamping or restraining plate, or part, and its connection with the carrying-bail therefor, as to insure the capabilities for utilization of the device especially in bottling establishments where the independent section of cork, to be retained by the clamping-plate, is driven into the mouth of the bottle by the reciprocating driver or plunger, and all so that while the driver is substantially in engagement with the cork, the retaining plate may be brought into position over and against the cork without interference with or by the driver, for the immediate consummation of the bottling operation.

To this end the invention consists in the combination with the bottle, the bail and supporting and operating devices therefor, of a plate or disk having at or near the edge portion thereof a connection with the bail, and provided with an aperture which extends from an intermediate part of the plate to the edge thereof.

The invention furthermore consists of features of construction all substantially as will hereinafter more fully appear and be set forth in the claims.

The invention is illustrated in the accompanying drawings in which—

Figure 1 is a plan view of the bottle, stoppered. Fig. 2 is a side elevation of the same. Fig. 3 is an elevation at right angles to Fig. 2, showing the relative position of the parts during the stoppering operation, and Fig. 4 is a

perspective view of a part of the bail and the improved confining plate carried thereby.

The bottle in conjunction with which this improved device is employed is understood as having within its mouth a circular rabbet and ledge as indicated at *a*.

b represents the disk or circular section of cork or other suitable compressible material which is adapted to be forced into the mouth of the bottle to rest upon the ledge and, preferably, to project slightly above top of the edge surrounding the mouth. The bail, *d*, is connected and supported at the extremities thereof to and upon the wire *f*, which forms the yoke and lever and which has its fulcrumed support upon the neck of the bottle in a manner common and well known in bottle-stoppers. It will be noticed, however, that the bail has the intermediate portion thereof, of **U** or bowed form, as seen at *e*, and this portion is extended into a plane which is about right angular to the extension of the legs of the bail from their connection with the lever-yoke.

g represents the confining plate or part, the same being here shown as of circular form, with, however, the aperture, *h*, which extends from its middle portion to its edge, said aperture having a width as great as the diameter of the driver for the cork, *b*, which driver is indicated at *x*. This plate has the lug, *i*, which is suitably perforated for the engagement therewith of the intermediate part of the **U**-formed section, *e*, of the bail, which **U**-formed section, in the arrangement shown, makes a detour of the inner boundaries of the said aperture, *h*.

In order that the confining plate may be retained in a plane substantially parallel with the **U**-formed section, *e*, or in any event that it may have no considerable degree of swinging movement independently of the bail, the plate *g* is provided at each side of the said aperture, *h*, with the lugs, *j*, *j* which are of such angular form as to engage the said section of the bail, *e*, near the points at which the direction of this part changes from that of the legs.

In the operation of bottling, just previous to the descent of the driver, the independent disk of cork is placed at the mouth of the bottle to be forced to the seat on the ledge, *a*, by

the driver; before the driver is upwardly re-
tired the bail is swung up into the position
seen in Fig. 3,—the aperture in the plate per-
mitting,—and then the lever is operated in
5 the usual manner.

Having thus described my invention, what
I claim, and desire to secure by Letters Pat-
ent, is—

1. The combination with a bottle, a stopper
10 to the bottle, a swinging bail hung on the neck
of the bottle and devices to swing and place
said bail across and off from the stopper, of
a confining plate for the stopper hung on said
bail and having an aperture that is open at
15 the edge thereof, substantially as described,
for the purpose specified.

2. The combination with a bottle, a stopper
to the bottle, a swinging bail hung on the neck
of the bottle and devices to swing and place
said bail across and off from the stopper, of 20
a confining plate for the stopper hung on said
bail and having an aperture open at the edge
thereof and lugs engaging said bail at either
side of its hanging thereon, substantially as
described, for the purposes specified. 25

In testimony whereof I have hereunto set
my hand in the presence of the two subscrib-
ing witnesses.

DANIEL O'KANE.

Witnesses:

ALBERT W. BROWN,
MARY W. STORER.