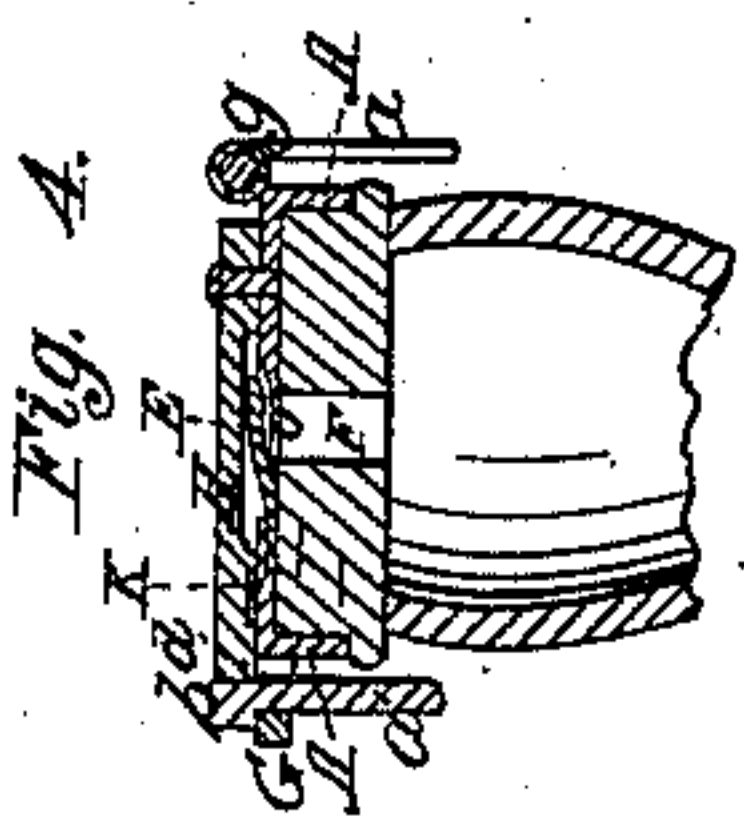
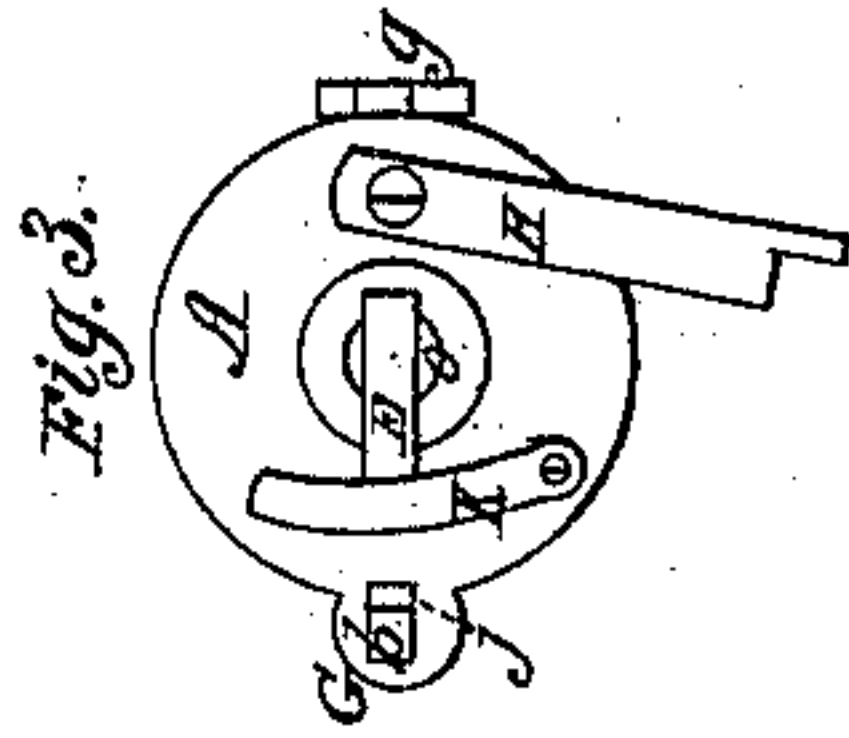
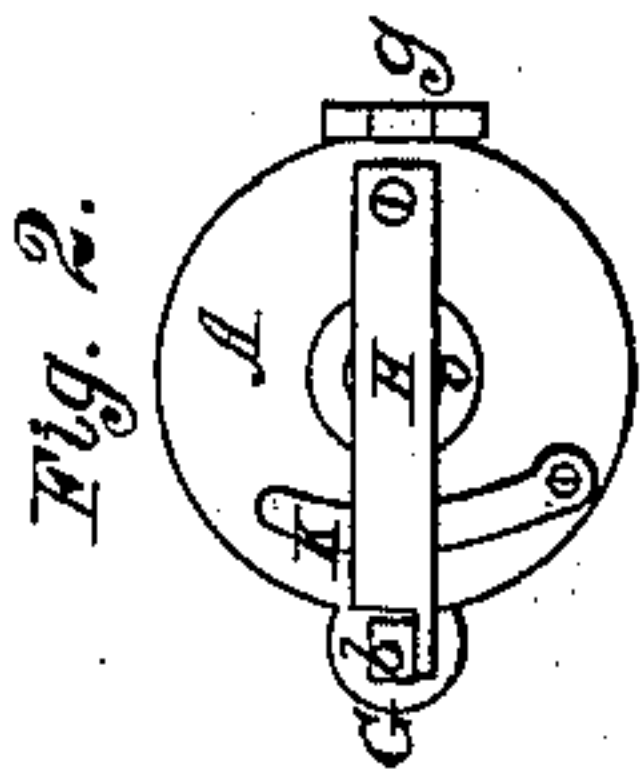
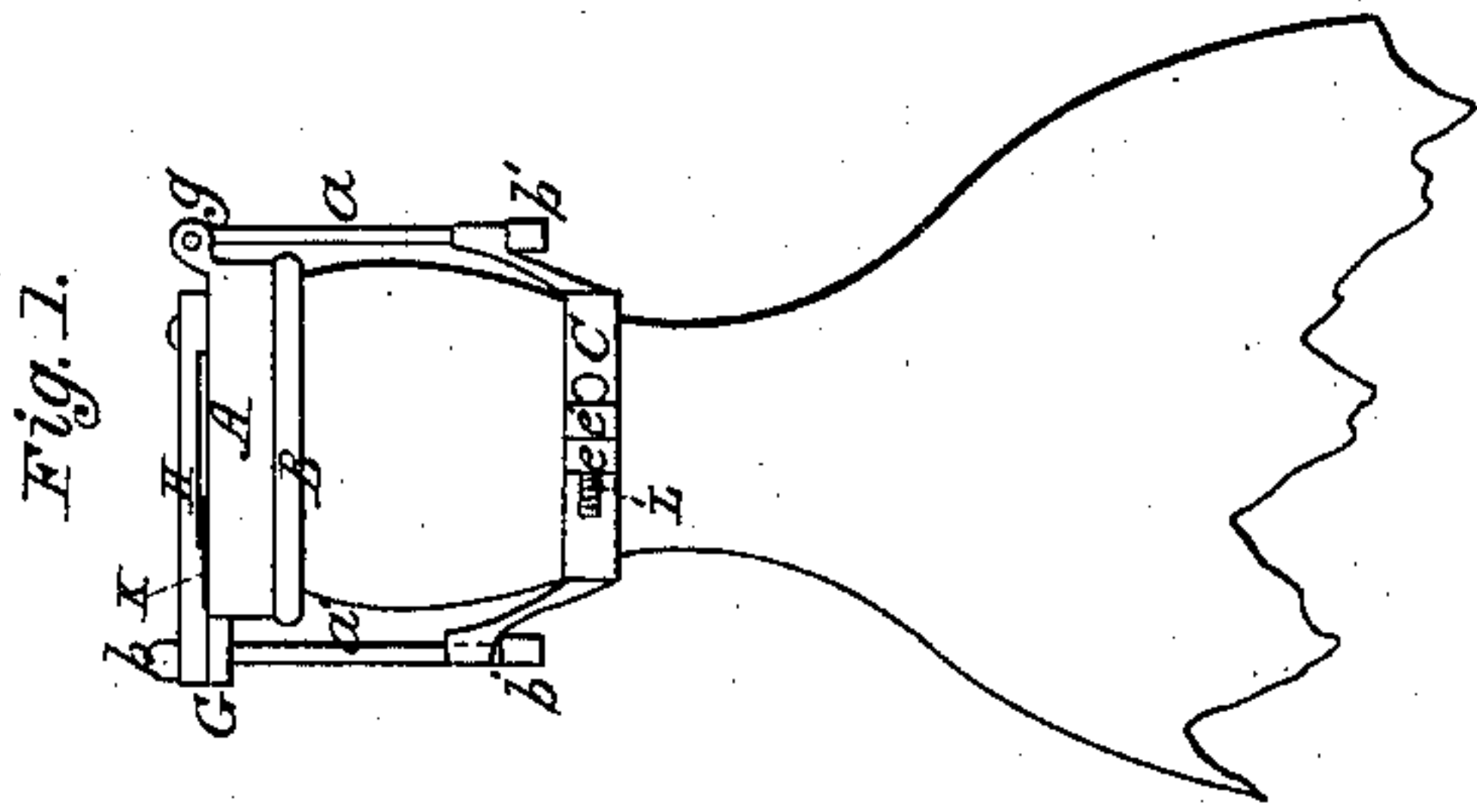


*J. Mulchahey,*

*Stopper Fastener.*

*N<sup>o</sup> 58,174.*

*Patented Sep. 18, 1866.*



*Witnesses:*  
*C. B. M. well*  
*L. L. Davis*

*Inventor:*  
*John Mulchahey*  
*by his attorney*  
*J. B. Gardner*

# UNITED STATES PATENT OFFICE.

JOHN MULCHAHEY, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO  
HIMSELF AND CHARLES MULCHAHEY, OF SAME PLACE.

## IMPROVED BOTTLE-STOPPER.

Specification forming part of Letters Patent No. 58,174, dated September 18, 1866.

*To all whom it may concern:*

Be it known that I, JOHN MULCHAHEY, of Springfield, Hampden county, Commonwealth of Massachusetts, have invented a new and useful Bottle-Stopper; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings, Figure 1 represents a side view of my invention, Figs. 2 and 3 being plan views, and Fig. 4 a section vertically through it.

The purpose of this invention is to make a stopper for bottles intended to hold effervescing liquor, which shall be easily opened and shut, and which shall be, although tight enough to hold the gas confined under ordinary pressure, so arranged that when an extraordinary degree of expansion is caused in the bottle the gas may escape in some degree and save the bottle from bursting.

In construction, I form my stopper of a piece of india-rubber or similar suitable material, fitted in a metal case. This case is hinged to a rod, which extends down to the neck of the bottle, and is attached to a collar around the neck. On the opposite side of the collar is another rod, attached in the same way as the first, having at its upper end a head. This head passes through an orifice in an ear jutting out from the side of the case opposite to the hinge before mentioned. When the head is passed through the orifice in the ear and pressed out from the bottle, it catches on the upper surface of the ear and holds the case and rubber down on the mouth of the bottle. Through the center of the rubber wad is an orifice of proper size, the case having one to correspond. At the top of this orifice, fitting into it, is a valve of suitable material, held in place by a spring, which holds it down until extraordinary pressure operates on it from the inside of the bottle.

In the drawings, A is the metal case; B, the rubber wad or cushion; *a a'*, the rods connecting the case A with the collar C. D is the safety-

valve, held down by the spring E and stopping the upper end of the orifice F.

It will be seen that the upper end of the rod *a'* is furnished with a head, *b*, which catches upon the upper surface of the ear G, after passing through the orifice *d*, where it is held tightly in place by the latch H, which is pivoted at one end upon the upper surface of the case A and slides around parallel to it. Friction is formed upon it by the spring-latch K beneath it, which keeps it in position when it is shut against the head of the rod *a'*. The collar C is connected around the neck of the bottle by means of the screw L working in the nuts *e e'*, and has an ear on each side of it, through which the lower ends of the rods *a a'* are passed, and fastened by the nuts *f f'*. *g* is the hinge connecting the case A and the rod *a*.

In operation, when the bottle is filled and ready to cork, the case is pressed down, the rubber fitting tightly down upon the rim of the bottle, the head of the rod *a'* passing through the orifice *d* in the ear G, and is then pressed into place and held there by the latch H being swung around against it, this latch being itself held in place by the friction of the spring-latch K. This being done the bottle is stopped completely until, as before stated, sufficient gas is accumulated in the bottle to force up the valve D, when a portion escapes and relieves the pressure in some degree.

The advantages of this invention are, principally, that it forms a complete stopper, easily adjusted, having no wires to be cut when opened, and then it renders the bottle perfectly safe from explosion, which otherwise is frequently the case, and still keeps all necessary life in the liquid, the safety-valve only opening under such pressure as would be nearly sufficient to burst the bottle.

The ease with which this bottle may be opened is another advantage, it being only necessary to swing around the latch H, and then, by a slight pressure on the rod *a'*, the stopper is allowed to fly open, operated by the pressure on the inside.

Now, having described my invention, what



I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of a safety-valve in the stopper of a bottle, substantially in the manner and for the purpose set forth.

2. The use of a rubber or similarly elastic stopper when the same is fitted in a case, A, which is hinged at one side and fastened by a catch or latch at the other, substantially as set forth.

3. Holding the latch or catch *b* by means of the pivoted bar H, which is also held in place by means of the spring K, or other suitable means, substantially as described.

JOHN MULCHAHEY.

Witnesses:

J. B. GARDINER,  
EDWARD H. HYDE.