

(No Model.)

G. A. POOLE.

AUTOMATICALLY CLOSING CAN.

No. 387,959.

Patented Aug. 14, 1888.

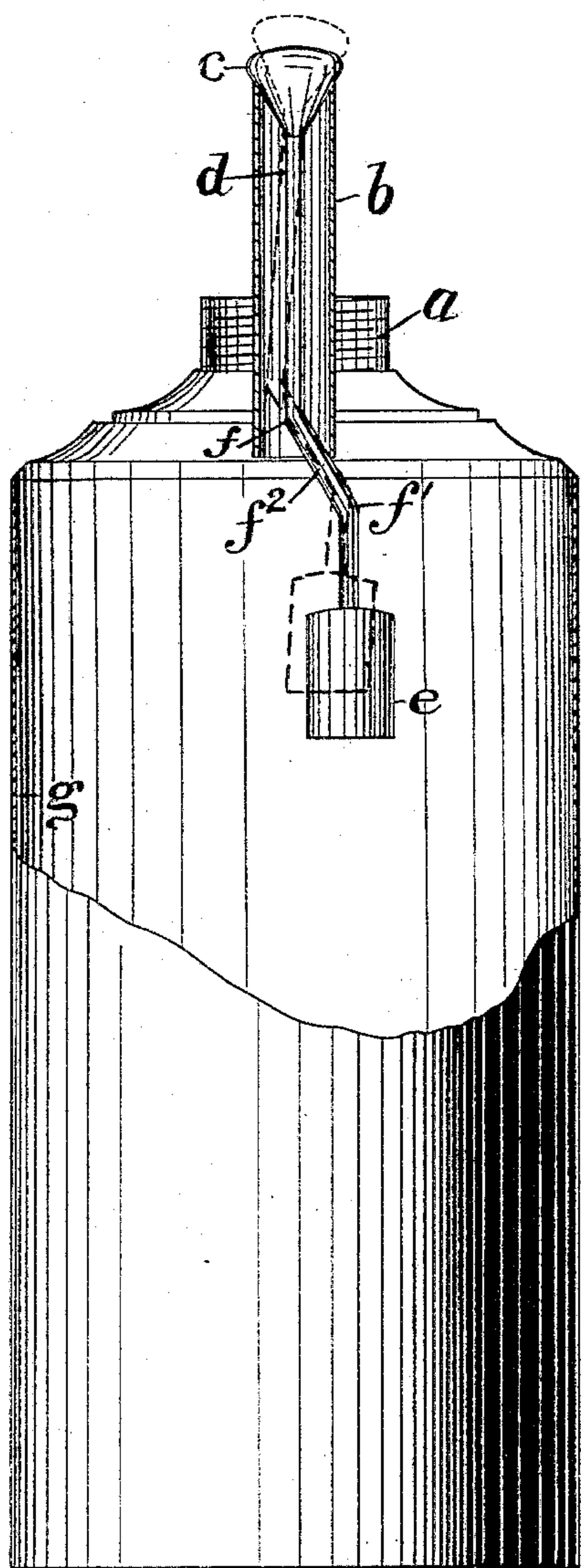


Fig 1.

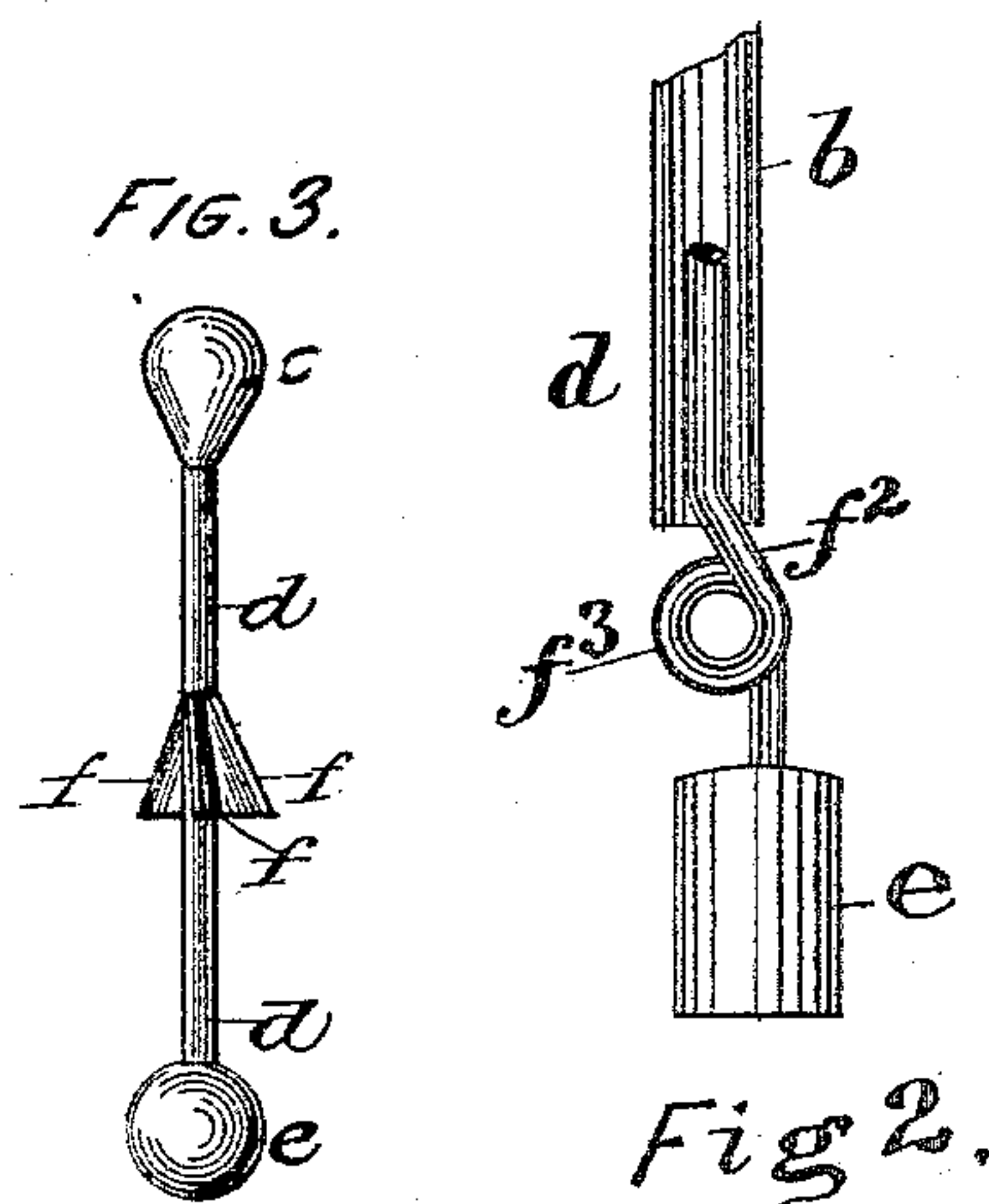


FIG. 3.

Fig 2.

Witnesses:

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AUTOMATICALLY-CLOSING CAN.

SPECIFICATION forming part of Letters Patent No. 387,959, dated August 14, 1888.

Application filed May 21, 1888. Serial No. 274,481. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. POOLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatically-Closing Cans, Bottles, &c., which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 represents my automatically-closing can, partly in perspective, the upper part of the can being cut by a central vertical plane, and the near part of the can so cut broken away and the cork and its attached parts shown in position in full outline when the can is closed and in dotted lines when open. Fig. 2 shows a part of the neck of the can and a part of the apparatus which closes the can, constructed in a modified form. Fig. 3 shows a modification of my improved bottle stopper, the stem d being a straight bar upon which are secured three equidistant triangular wings, of which the outer edges, f , perform the same function as the outer edge of the part f^2 shown in Figs. 1 and 2.

Like letters of reference refer to like parts.

The object of my invention is to construct a can or cans, bottles, &c., particularly such as are used by printers for benzine-cans and like inflammable and dangerous or valuable liquids, which shall be self-closing when not in use, as well as self-opening when in use; and to attain said ends I construct my said improved vessel substantially as follows, namely:

Through the screw-cap a or an ordinary cork fitting into the mouth of the can or bottle I pass or attach a tightly-fitting tube, b , terminating at or near the lower end of the cork, or at the inside of the top of the cap when made of sheet metal, projecting upward far enough to give a good seat to the valve or cork. Into the upper end of said tube is placed a conically-shaped stopper or plug, of which the tapering or inner end may be more or less sharply pointed than here shown, as may be found best suited to the material contained in the cans, and at the same time form the best valve seat or closure, and to the apex of said cork is attached a stem of wire, d , which passes down into the can a short distance, and at its

lower end has attached to it a weight, e . In order to prevent said weight e from closing the tube b when the can is inverted, said wire d is bent at the points f and f' into obtuse angles lying on opposite sides of said wire and in about the same plane, having a straight part, f^2 , between them, of which the lower end will rest on and extend beyond the edge of the tube b when the valve is open. The angle of inclination formed between said part f^2 and the part d above it should be in about the proportion as here shown, or great enough to cause the part f^2 to slide down over the lower edge of the tube b when the can is held in a horizontal position or thrown on its side, and thereby close the cork c by means of the attached weight e . The second or lower angle, f' , is, however, not necessary, as the section f^2 may continue on straight to the weight e with advantage if it can conveniently be passed into the can or bottle and have room to operate freely, because the farther to one side of the center of the cork the weight e can be placed the quicker it will cause the cork to turn and the upper side of the inclined section f^2 to fall upon the end of the tube b and slide down on it until the cork c is drawn in and fully closes the aperture. No matter in what position the weight e may be when the can is turned upon its side the weight e will always, through gravity, find its lowest possible position instantly and cause the can to close, as above stated.

Where, for reasons as above stated, the part f^2 cannot be made long enough in proportion to the diameter of the tube b to prevent its entering it, and thereby causing the apparatus to become inoperative by the weight e closing the tube, a ring, f^3 , or similar device may be formed out of the stem d or attached to it or the weight e , for the purpose of leaving a free vent, and so as to keep the part f^2 in operative position with the lower end of the tube b at all times, or, when found more practical, the stem d may be straight to the weight and provided with several short parts, f^2 , secured around it.

To operate this device it is only necessary to turn the vessel partly or wholly upside down, when the weight e will cause the cork c to open, and to close the can, it is only necessary to hold it in a horizontal position, when it will close automatically, and it will always close in the

same way under all ordinary circumstances, and remain closed, even if it is let fall or is knocked over.

What I claim is—

- 5 1. In an automatically opening and closing can or bottle, a tube, in combination with a cork and a weight within the can, which are united by a rod having an inclined part or parts, f^2 , to operate upon the end of said tube,
10 substantially as specified.
2. In an automatically opening and closing

can, a tube, in combination with a cork and a weight within the can, arranged eccentrically to the axis of the tube, and connected to the cork by a rod having an inclined part, f^2 , to
15 operate upon the end of the tube, substantially as specified.

GEORGE A. POOLE.

Witnesses:

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C. VOGEL.