

D. M. FORD & J. A. KLEY.

Fire Extinguishers.

No. 116,041.

Patented June 20, 1871.

Fig 1

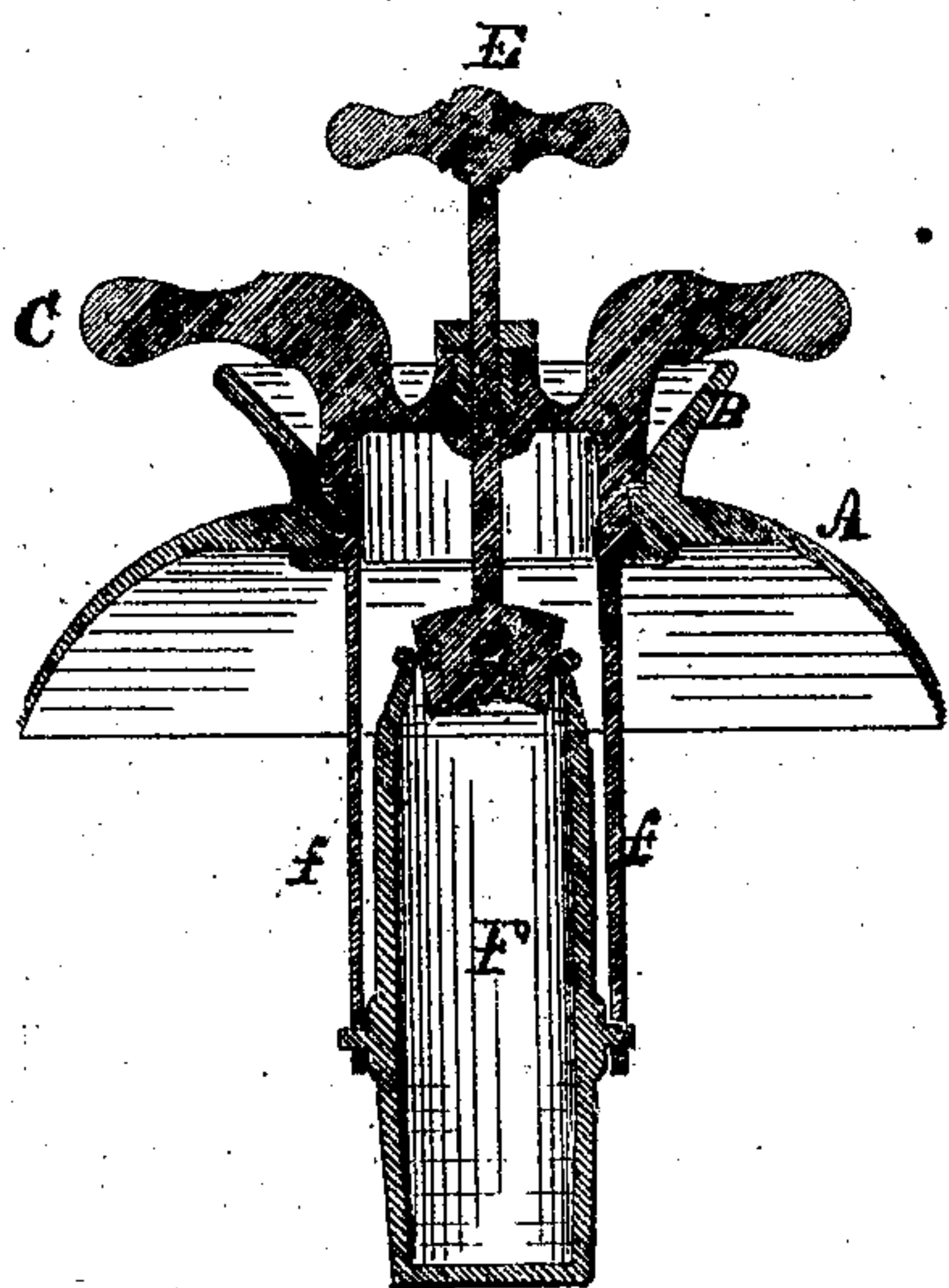


Fig 2

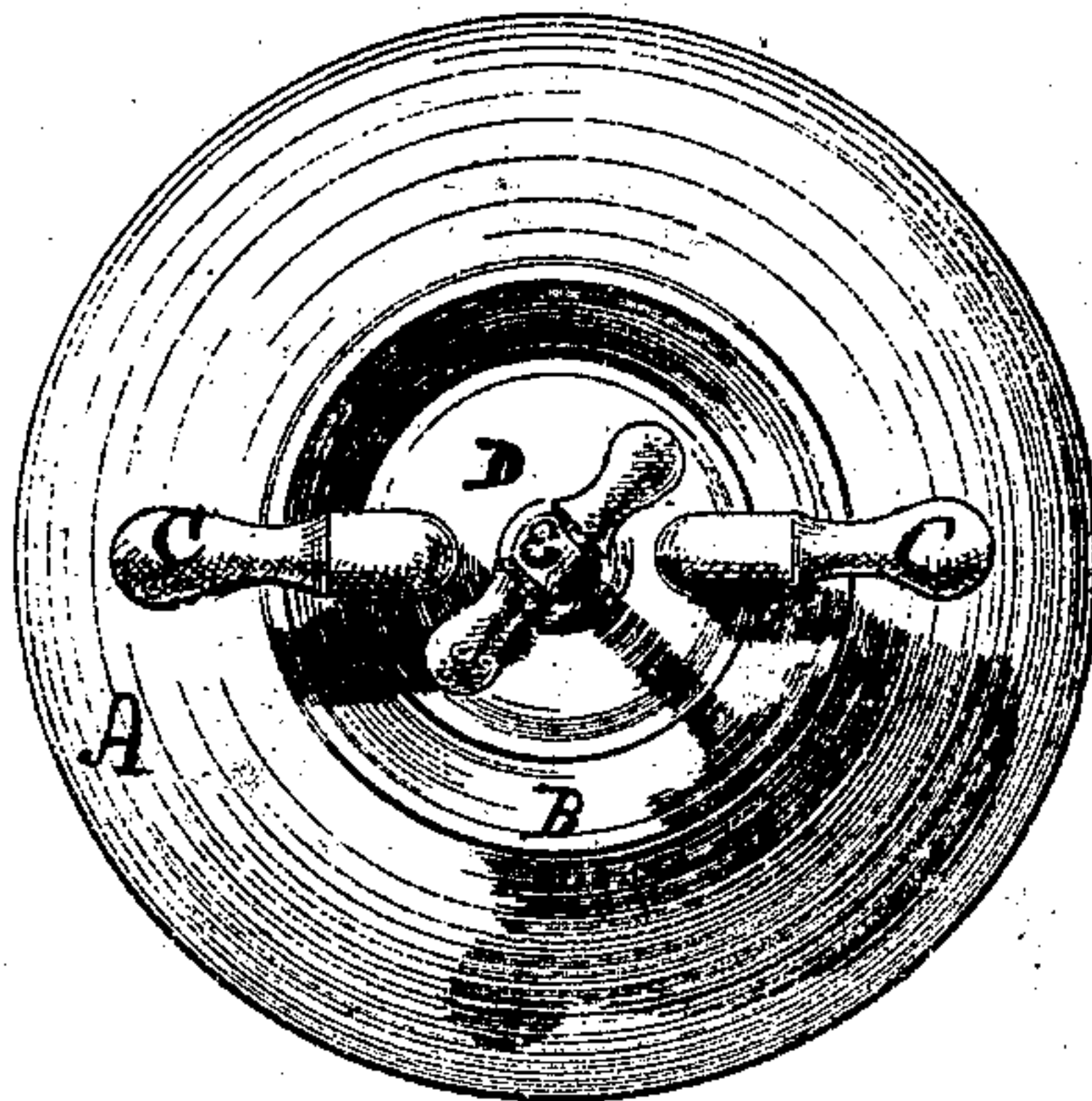


Fig 3

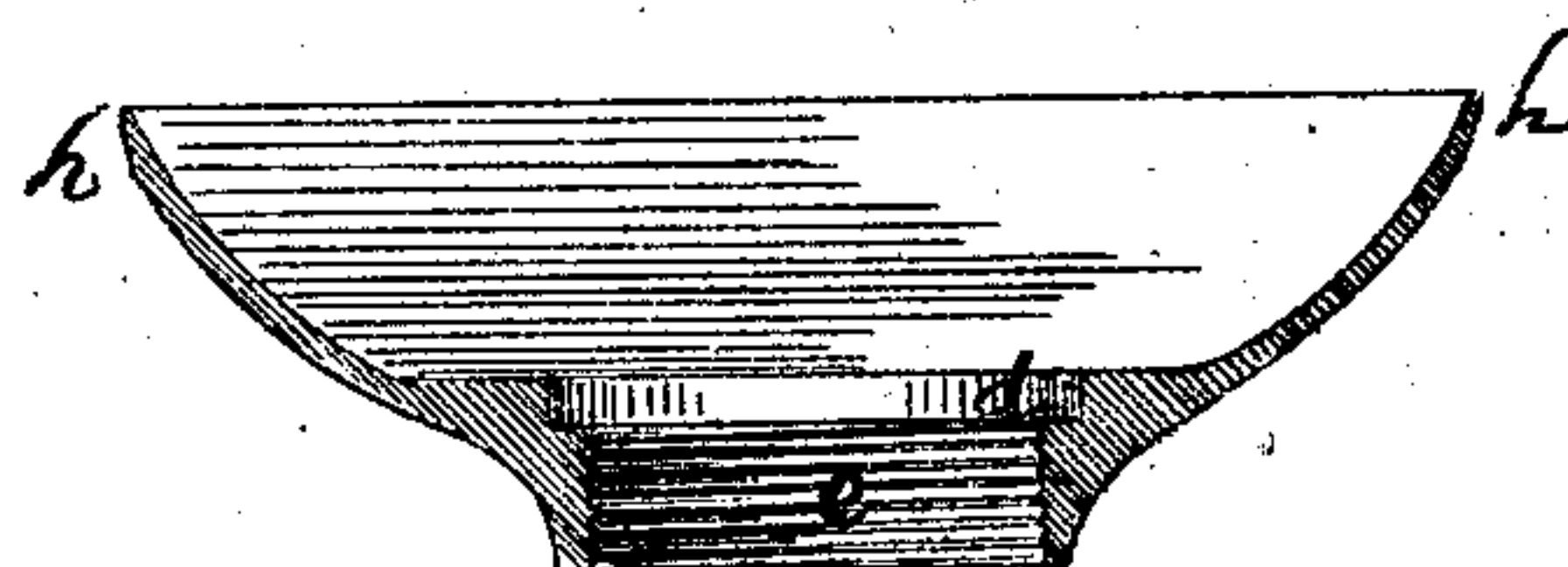
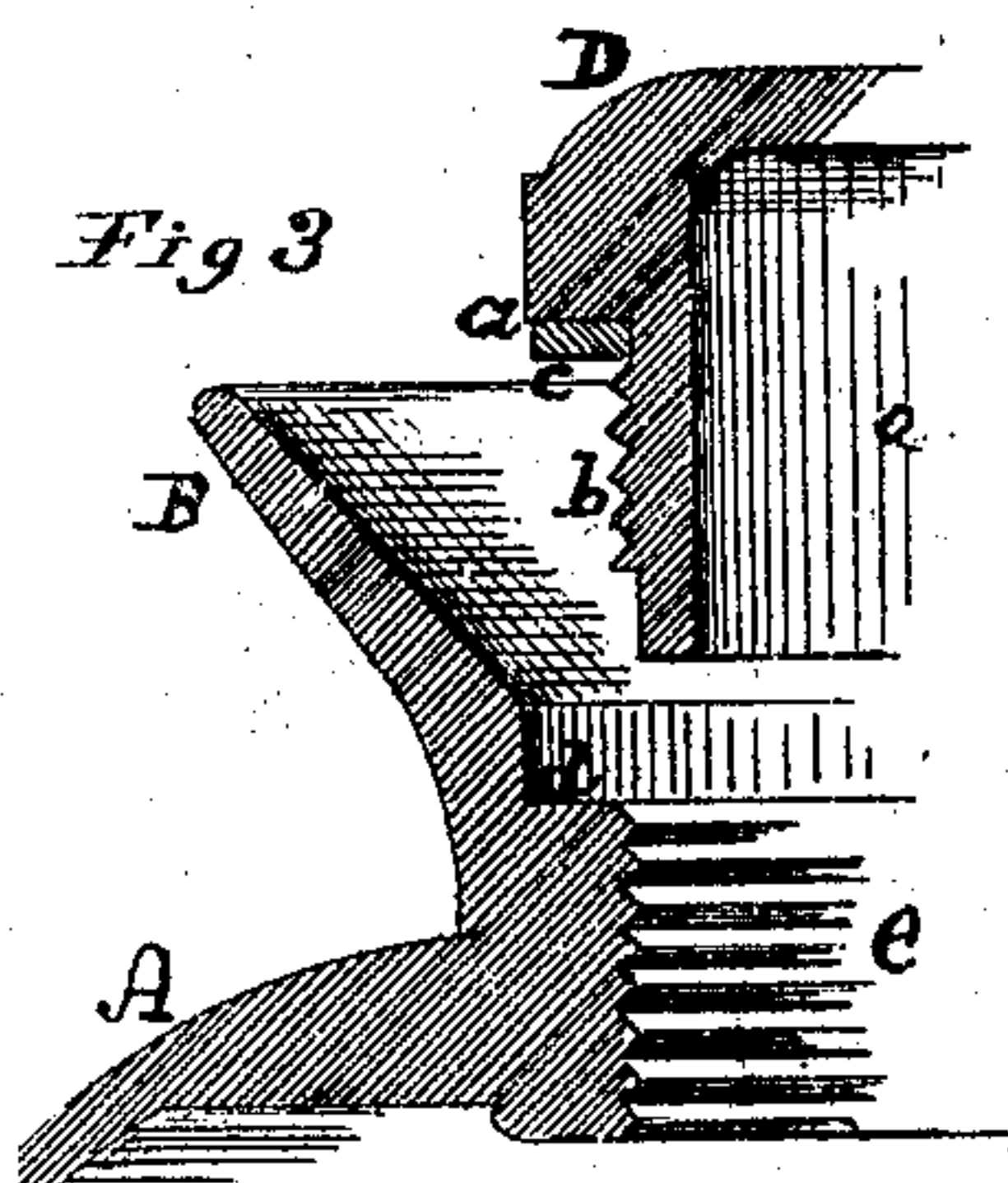


Fig 4

Witnesses

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UNITED STATES PATENT OFFICE.

DAVID M. FORD AND JOHN A. KLEY, OF CHICAGO, ILLINOIS; SAID KLEY
ASSIGNS HIS RIGHT TO SAID FORD.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. 116,041, dated June 20, 1871.

To all whom it may concern:

Be it known that we, DAVID M. FORD and JOHN A. KLEY, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Fire-Extinguishers, of which the following is a full description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a vertical section; Fig. 2, a top view; Fig. 3, an enlarged detail, showing the cover D partly removed. Fig. 4 shows a variation of one part of the device.

Our invention relates to portable fire-extinguishers, in which a solution of carbonic-acid gas in water, or some similar extinguishing material, is used. It consists in providing the opening in the top of the reservoir with a flaring flange having a shoulder, as described, and in providing the cover with a corresponding shoulder and with handles to facilitate its removal, and by which the extinguisher may be handled.

It is essential in such apparatus that all the joints be perfectly tight, and that as little delay as possible take place in the use of the same.

It has been customary to secure the cover by screws, one of which must be removed before the cover can be taken off, which screw, in the hurry and excitement attending a fire, might be easily lost, especially in the night-time.

In the drawing, A represents the top of an extinguisher, having a central opening, as usual, permanently secured to such top; and around such opening is a flaring flange, B, having a shoulder, *d*, below which shoulder is a screw-thread, *e*, into which the cover D fits. The flange, with its shoulder and the screw-thread, may be made from a single piece of metal most conveniently, and soldered to the top A. D represents the cover or cap, which has a male screw, *b*, corresponding with the female screw *e*, and a shoulder, *a*, fitting the shoulder *d*. *c* is a leather or other suitable packing. One or more handles, C, are cast with or otherwise permanently secured to the

cover D, by the use of which the same can be tightly screwed on and removed. The shoulder *d* forms a seat for the packing *c* and holds it in place, preventing it from being pressed out at the outer edge. The handles C, being a part of the cover or cap D, render it absolutely certain that the cap can be removed or replaced whenever desired without loss of time, and no part can be lost or mislaid.

It is necessary to remove the cover as often as it becomes necessary to recharge the apparatus, which may be several times upon the occurrence of a single fire, and a brief delay or hindrance for a short time might prove disastrous. The flaring flange B renders it possible to fill the reservoir with much greater facility than when the apparatus is constructed in the ordinary manner.

The top of the apparatus or reservoir may be made as shown in Fig. 4, and when so made it will be soldered to the upper edge of the reservoir at the edge *h*, the concave side of the top being up, and the shoulder *d* and screw *e* being arranged as shown in said Fig. 4; and, when so made, the cover itself is adapted to perform the office of the flange B, while the cap D will be constructed as before described. The bottle F, frame *f f*, stopper *g*, and handle E are constructed, arranged, and operated in the usual manner.

What we claim as new is as follows:

1. The top A of a fire-extinguisher, provided with the flange B, shoulder *d*, and female screw *e*, substantially as and for the purpose specified.
2. The cap or cover D, provided with a screw, *b*, shoulder *a*, and one or more handles, C, substantially as specified.
3. The top A of a fire-extinguisher, provided with the flange B, shoulder *d*, and female screw *e*, in combination with the cap D, provided with a screw, *b*, shoulder *a*, and one or more handles, C, substantially as specified.

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Witnesses:

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