

J. S. TIBBETS.
Fire-Extinguishers.

No. 148,526.

Patented March 10, 1874.

Fig. 1.

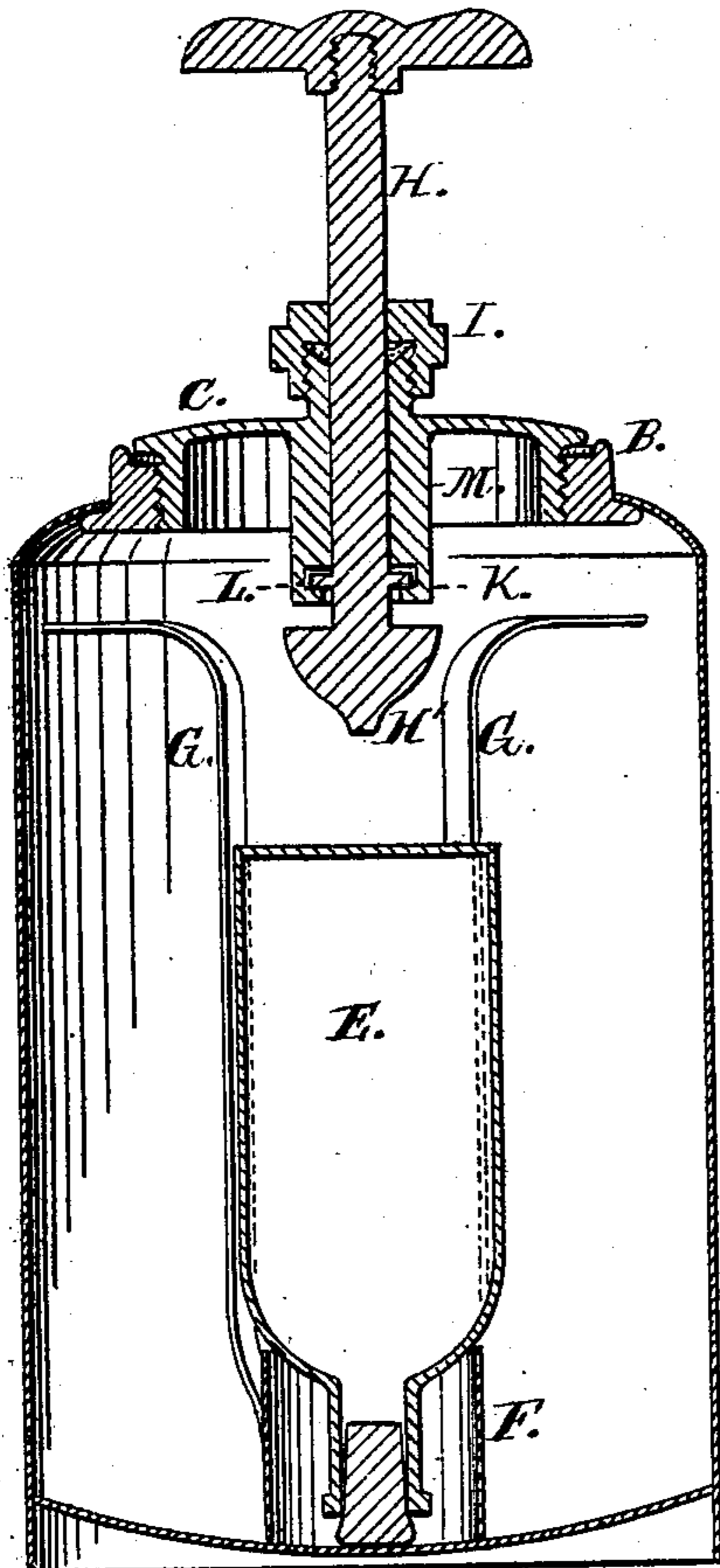


Fig. 2.

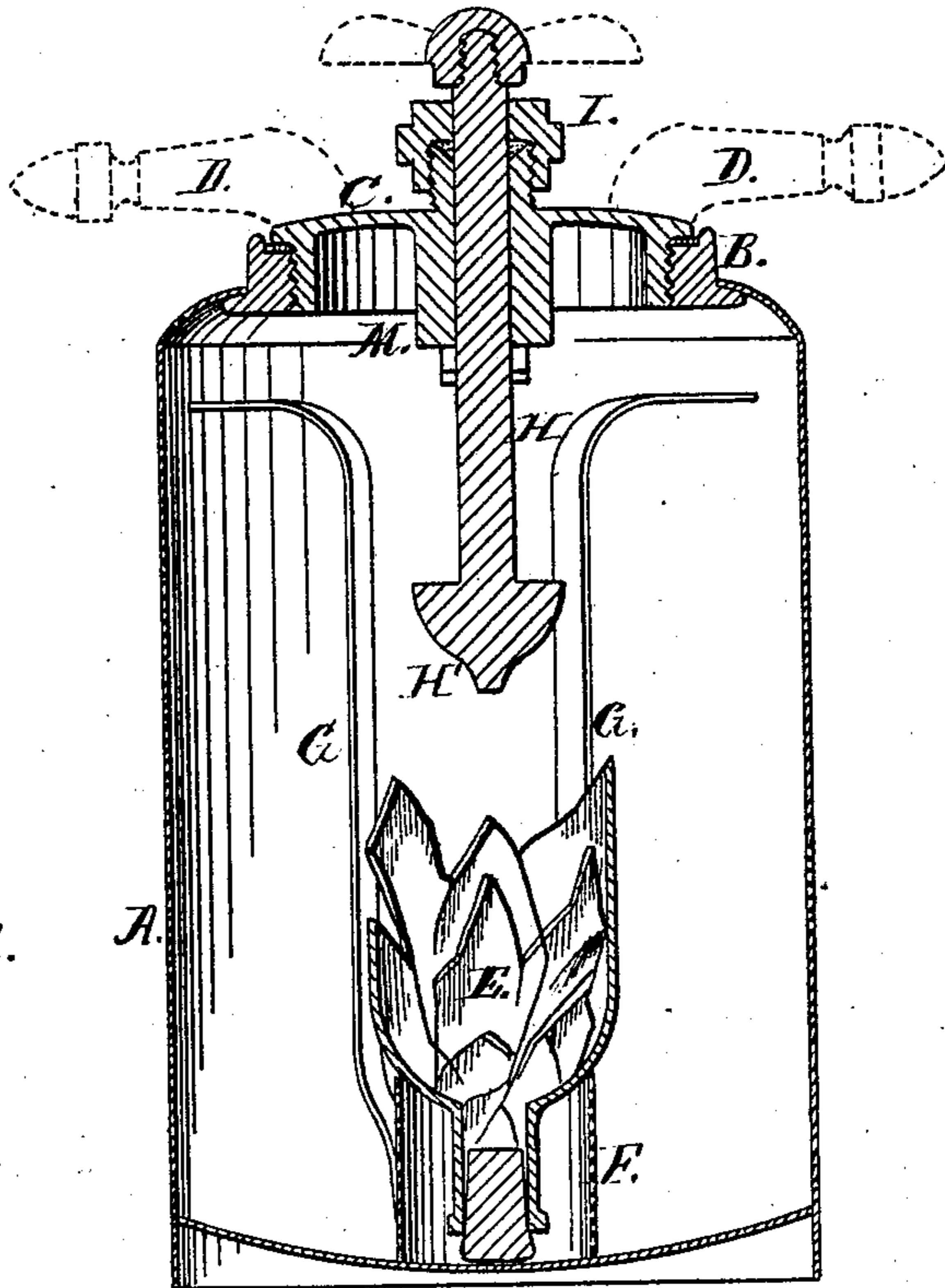
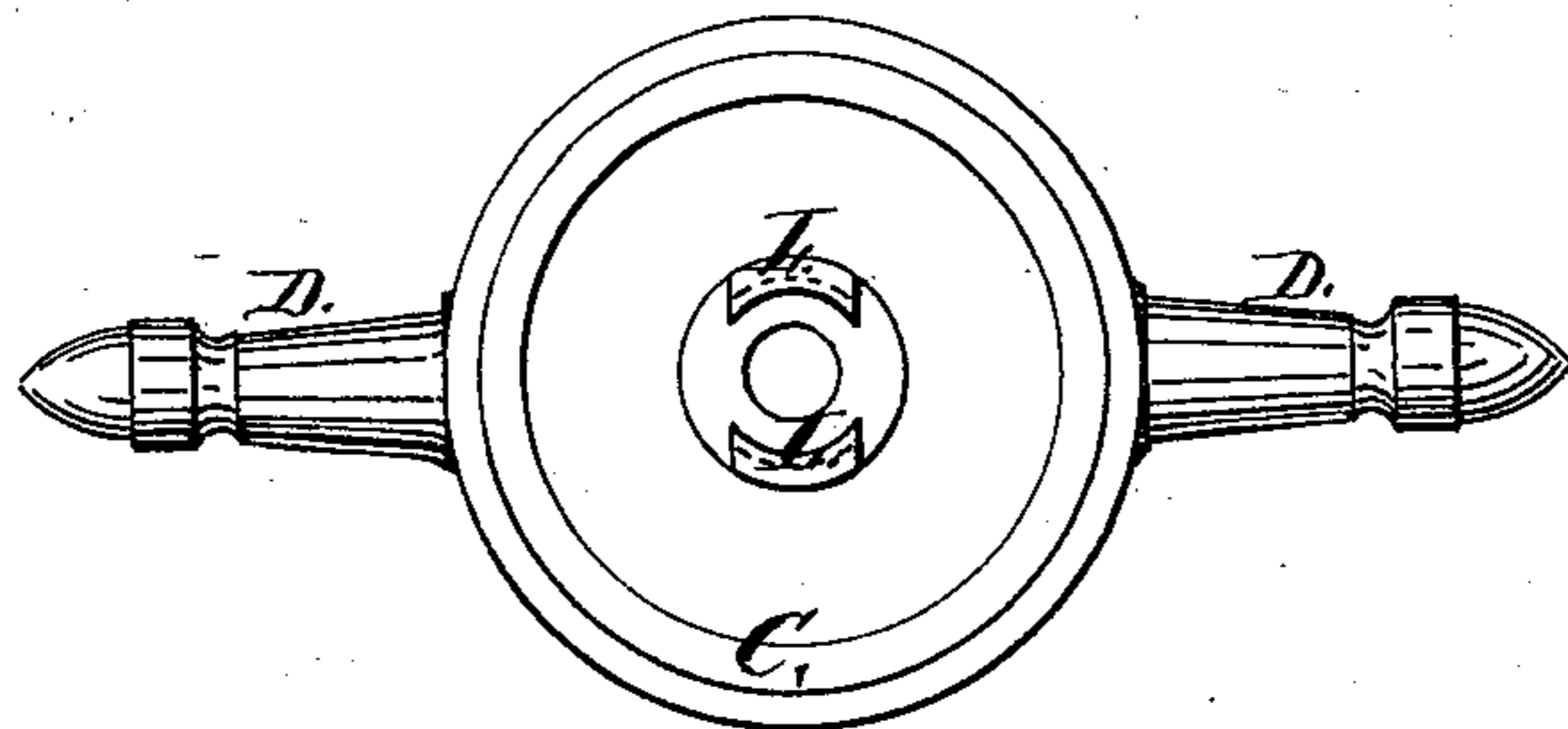


Fig. 3.



Witnesses
A. H. Torrie.
W. J. Payton.

Inventor.
J. S. Tibbets.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

JONATHAN S. TIBBETS, OF JEFFERSONVILLE, INDIANA.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **148,526**, dated March 10, 1874; application filed January 28, 1874.

To all whom it may concern:

Be it known that I, JONATHAN S. TIBBETS, of Jeffersonville, in the county of Clarke and State of Indiana, have invented certain new and useful Improvements in Fire-Extinguisher, of which the following is a specification:

This invention relates to certain improvements in that class of fire-extinguishers wherein is employed, in connection with an alkali reservoir or tank, a vessel or bottle containing acid, which is designed to be fractured or broken before the admixture of the chemicals can take place. The invention consists in the employment of a fragile acid receptacle or bottle, which is supported at the base of the alkali-chamber by a socket or cup, and laterally by vertical strips or bars extending from said cup, so that said acid-receptacle is firmly held in position. The invention further consists in the employment, in connection with an acid-vessel arranged within an alkali reservoir or tank, of a fracturing or breaking device which projects through the cap of the alkali-chamber, and is guided by means of an internal tubular enlargement of the cap, said fracturing device consisting of a plunger or stem carrying a head or hammer at its lower end, and provided with studs above said head, which are designed to be turned into grooved or shouldered segmental projections on the lower end of the tubular internal enlargement of the alkali-chamber cap, in order to retain the plunger in an elevated position, the disconnection of the plunger, in order to enable the same to be forced down upon the acid-bottle, being effected by turning or partially rotating the same.

In the drawings, Figure 1 is a vertical sectional view of an alkali-chamber, intact acid-bottle, and fracturing device in an elevated and locked position. Fig. 2 is a sectional view representing the fractured acid-bottle and the position of the plunger when forced down. Fig. 3 is a bottom view of the cap of the alkali-chamber, representing the segmental locking projections.

The letter A designates a section of the reservoir or alkali-tank, which is provided with the usual appendages for distributing the contents and for transporting the same. An annular open rim, B, applied to the mouth of the

alkali-tank, is provided with an internal screw-thread for the reception of a screw-threaded cap, C, which may be provided with the handles D for turning the cap. E designates a fragile acid-holder bottle, which is arranged within the alkali-chamber, and supported and retained in position by means of a cup-shaped receptacle or socket, F, applied in a permanent manner to the base of the alkali-chamber, and from which extend a suitable number of vertical strips or arms, G, between which the body of the acid-bottle is held, while the neck of the bottle enters into and is supported by the socket or receptacle F. The bottle is inverted, and is closed by a stopper which is not affected by acids. For the purpose of liberating the contents of the acid-bottle, so as to enable the admixture of the same with the alkaline liquid to take place, I provide the cap of the alkali-tank with a breaking or fracturing device, which consists of a plunger or stem, H, carrying at its lower end a head or pointed hammer, H', and provided at its upper end with a suitable handle, which is made detachable, so as to enable the stem to be passed through the cap. The plunger, which projects and operates through a stuffing-box, I, applied to the external surface of the cap, is capable of being locked or retained in an elevated position in such a manner as to prevent the same from being casually liberated, thus obviating the accidental breakage of the acid-bottle. For the purpose of locking the stem of the fracturing-head, I provide the same with horizontal projections or studs K, which, when the stem is elevated, enter between the subjacent ends of the segmental projections L, on the lower end of a tubular enlargement, M, on the under side of the cap of the alkali-chamber, when, by turning the stem or plunger, the studs on the same are caused to enter the inner grooved or shouldered surfaces of the projections L. A reverse movement or rotation of the plunger will cause the studs on the same to be freed from the projections on the tubular enlargement, when it can be forced down upon the acid-bottle, in order to fracture or break the same, in order to liberate the acid for causing it to commingle with the alkaline solution. The tube M, or enlargement of the lower side of the cap of the alkali-chamber, is designed

to serve as a guide for the stem or plunger of the fracturing device, thus insuring a steady and perfect movement of the same. The fragments of the bottle are retained or prevented from passing into the alkali-chamber to a considerable extent by the encircling strips or bars, the spaces between which are sufficiently large to enable the acid to flow freely out of the same. The receptacle or socket at the base of the alkali-chamber is designed to receive the neck of the acid-bottle, and to support the breast of the same in such a manner that the bottle is firmly retained in position during transportation of the extinguisher, and also when the plunger is forced down to fracture the bottle.

What I claim is—

1. The series of vertical strips or bars G, extending from a receptacle or socket, F, applied permanently to the base of a fire-extin-

guisher to support the body, neck, and breast portion of an acid-bottle, in combination with a fracturing device, substantially as herein described.

2. The acid-bottle fracturing device consisting of a plunger, H, and head H', passing through a guide-tube on the cap of the alkali-chamber, and provided with studs or projections K, operating in connection with the projections L on said guide-tube for locking and unlocking the fracturing device, substantially as herein described.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of January, 1874.

JONATHAN S. TIBBETS.

Witnesses:

JAMES L. NORRIS,
A. H. NORRIS.