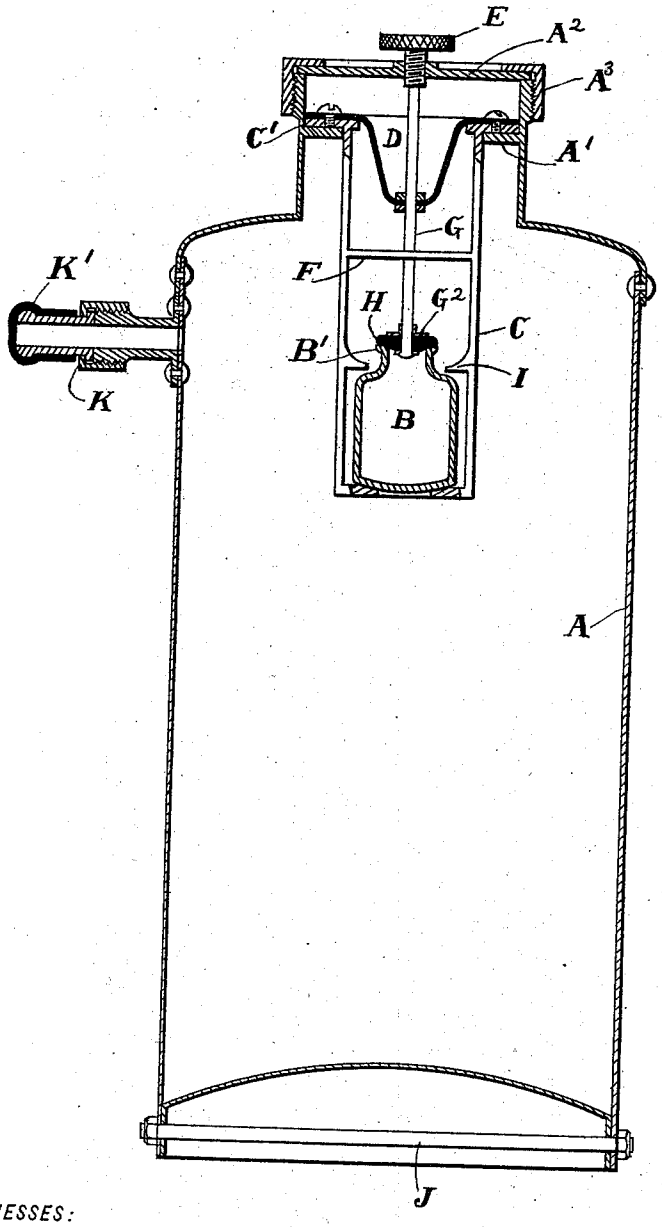
(No Model.)

M. E. OGDEN.

FIRE EXTINGUISHER.

No. 570,262. Patented Oct. 27, 1896.



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MANCELIA E. OGDEN, OF NEWARK, NEW JERSEY.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 570,262, dated October 27, 1896.

Application filed January 4, 1895. Serial No. 533,871. (No model.)

To all whom it may concern:

Be it known that I, MANCELIA E. OGDEN, of Newark, Essex county, New Jersey, have invented a new and useful Improvement in Fire-Extinguishers, which improvement is fully set forth in the following specification, reference being had to the accompanying diagram.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, said drawing representing in central vertical section a fire-extinguisher provided with my improvement.

In the practice of my invention I employ an ordinary vessel or receiver A, in which is placed the usual chemical solution.

Within the vessel is suspended, by means of an annular projection or shoulder A′, formed in the neck thereof, a frame C, preferably coated with rubber or formed of aluminium or other non-corrosive material, and provided with a concave bottom or support for the acid-receiver B, which is preferably provided with a convex bottom adapted to rest upon said support at the bottom of the frame. The acid-receiver B is also preferably of the form of a bottle or can having a neck or contracted upper part, the top of which is preferably provided with an annular bead or enlargement B′, as shown.

The top of the receiver is provided with a plate or cover A^2, held in place by a screw-threaded annular cap or ring A^3, and through the plate A^2 is passed a rod or bar G, said plate being provided with a screw-threaded projection, and the upper end of the rod or bar G being also screw-threaded and provided with a thumb-nut E.

Connected with the lower end of the rod G is a plate or head G^2, to which is secured, in any desired manner, a valve or stopper H, composed of rubber or other preferred material, the bottom of which is convex and adapted to fit and close the nozzle of the acid vessel B.

Secured to the sides of the frame C are inwardly-directed projections or shoulders I, which extend inwardly and over the shoulder of the acid-receiver, formed by the contraction thereof which constitutes the neck, the object of which is to assist in holding the acid-receiver B in position, or prevent its accidental removal, and also to prevent the adhesion of the vessel to the stopper or valve H when it is desired to remove the latter and operate the device, and a bar F is also provided, or connected with the sides of the frame C, through which the rod or bar G passes and which forms a guide for said bar.

The frame C is suspended from the annular projection or shoulder A′ by means of an annular rim or plate C′, to which is secured a hollow conical rubber device D, the base of which is directed upward and provided with an annular outwardly-extending rim or flange, by means of which it is secured to the annular rim or plate C′, and the apex of which is directed downward and provided with an opening through which passes the rod or bar G, with which it is securely connected in any desired manner. The object of this rubber flexible diaphragm is to entirely close the top of the vessel A and to hold the rod or bar G depressed, with or without the aid of the screw-thread at the top thereof operating in connection with the screw-threaded opening in the plate or cover through which it passes.

At one side of the vessel A is a discharge-nozzle K, the outer end of which is preferably provided with a thin rubber cap or covering K′, designed to be blown off in the operation of the device, or which may be removed by hand when desired. The vessel A is also provided with a handle J at the bottom thereof, or this handle may be located wherever desired.

The operation is as follows: When it is desired to set the extinguisher working, the rod G is operated by means of the thumb-nut or button E to release the screw-thread on said rod from the corresponding thread in the top plate, and said rod is pulled upwardly against the operation of the rubber flexible diaphragm D, which is expansive in operation and which operates to depress said rod, so as to keep the stopper or valve H seated. This movement will release the stopper or valve H from the nozzle of the acid-receiver B. Should, however, the stopper or valve adhere to the receiver, the latter will strike against the shoulders or projections I, and by the application of slight force to the rod G the stopper can be pulled away. The extinguisher or vessel A is then reversed or upset

and held by the handle J, the contents of the acid-receiver mingling with the chemical solution within the vessel A, the usual operation taking place therein, producing the usual pressure, and the contents of the vessel are forced out through the discharge-nozzle in the usual manner, the rubber covering thereon being blown off, if it has not previously been removed.

I prefer to employ aluminium or other non-corrosive material in constructing the frame C and its various parts, or the same may be coated with rubber. The acid-receiver B is preferably glass.

Having fully described my invention, I claim, and desire to secure by Letters Patent, the following:

1. In a fire-extinguisher, the combination of a receptacle as A, provided with a contracted neck, and a removable cover, of a frame supported therein, by means of an annular inwardly-directed flange located in the neck of the receptacle, said frame comprising a bottom portion and vertical side bars, having inwardly-directed shoulders or projections, formed therein, an acid-receiver supported in said frame, and adapted to be closed by a cap or valve, as H, a vertically-adjustable rod, passing through the removable cap or cover of the receptacle, and through the cap or valve of the acid-receiver, said vertically-adjustable rod being also passed through a flexible expansive rubber hollow flexible diaphragm, the apex of which is directed downward, and the base of which is directed upward, and provided with an annular flange or rim which is secured in position above the annular flange formed in the neck of the receptacle, so as to close said neck, substantially as shown and described.

2. In a fire-extinguisher, the combination of a receptacle as A, provided with a contracted neck, and a removable cover, of a frame supported therein, by means of an annular, inwardly-directed flange located in the neck of the receptacle, said frame comprising a bottom portion and vertical side bars, having inwardly-directed shoulders or projections, formed therein, an acid-receiver supported in said frame and adapted to be closed by a cap or valve as H, a vertically-adjustable rod, passing through the removable cap or cover of the receptacle, and through the cap or valve of the acid-receiver, said vertically-adjustable rod being also passed through a flexible expansive rubber hollow flexible diaphragm, the apex of which is directed downward, and the base of which is directed upward, and provided with an annular flange or rim which is secured in position above the annular flange formed in the neck of the receptacle, said receptacle being also provided with a discharge-orifice, and with a handle, substantially as shown and described.

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