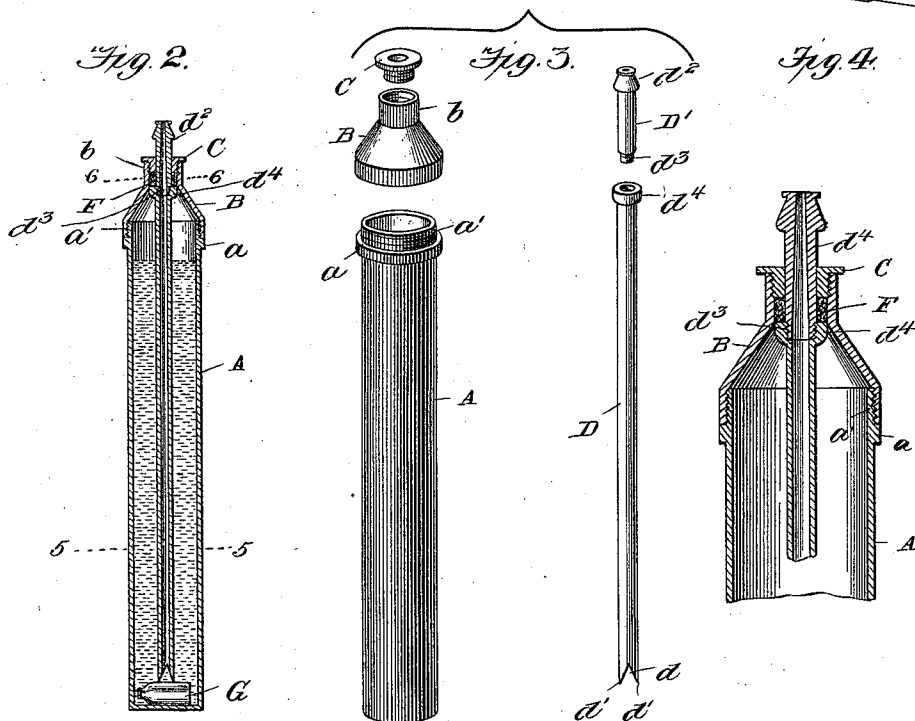
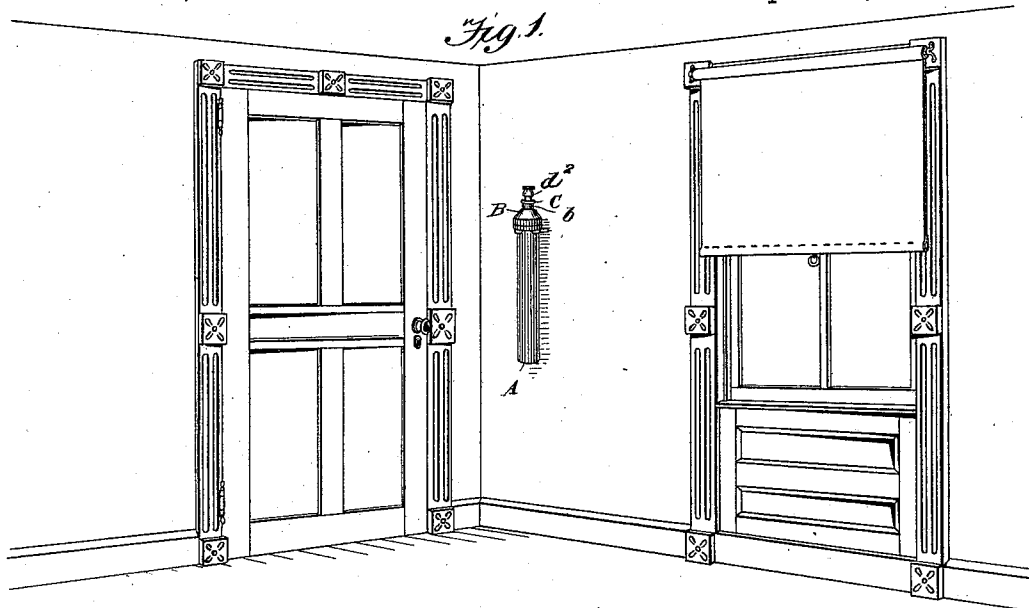


(No Model.)

J. BUCHEL.
HAND FIRE EXTINGUISHER.

No. 568,658.

Patented Sept. 29, 1896.



WITNESSES:

J. C. Shaw
J. Edw. Luckett

Fig. 5.

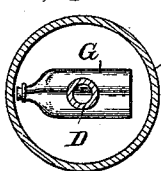
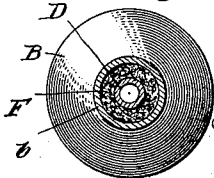


Fig. 6.



INVENTOR

Joseph Buchtel,

BY

Frederick Dietrich & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH BUCHEL, OF PORTLAND, OREGON, ASSIGNOR OF ONE-HALF TO
W. A. LAIDLAW, E. D. TIMMS, AND A. T. LEWIS, OF SAME PLACE.

HAND FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 568,658, dated September 29, 1896.

Application filed November 25, 1895. Serial No. 570,051. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BUCHEL, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and
5 Improved Hand Fire-Extinguisher, of which the following is a specification.

My invention relates generally to chemical fire-extinguishers, and more particularly refers to hand fire-extinguishers such as are
10 adapted to be hung up at convenient points in rooms or anywhere where there is danger of fire; and such invention has for its object to provide a hand fire-extinguishing device of a very simple and inexpensive construction, which can be easily manipulated, and
15 which will effectively serve for its intended purposes, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of one of my
20 fire-extinguishers hung up ready for use. Fig. 2 is a longitudinal section of the same complete. Fig. 3 is a perspective view illustrating several of the parts in detail. Fig. 4 is an enlarged detail section, and Figs. 5 and
25 6 are horizontal sections taken on the line 5 5 and 6 6 of Fig. 2.

Referring to the accompanying drawings, A indicates a tube for holding water and chemicals, formed at the upper end with an
30 annular flange *a* and an exteriorly-threaded portion *a'*, to which is screwed the cap B, made preferably of conical shape and having an extension *b*, interiorly threaded to receive a centrally-apertured washer or stuffing-plug
35 C, as clearly shown in Fig. 1.

Centrally of the large tube A is held a tube of a much smaller diameter, formed with a long lower part D and a short upper part D', the lower part having a section cut out at
40 the bottom, as at *d*, to form points *d'* for a purpose presently explained, the short section D' also having a threaded shank *d''* to enter a threaded socket *d'''* in the long section D to form a continuous tube.

The short tube-section D', it will be observed, terminates in a bottle-shaped nozzle *d''*, as most clearly shown in Fig. 4. It will also be observed by referring to such Fig. 4 that the nozzle member D' passes snugly
45 through the screw-washer C, and the upper end of section D has an annular enlargement *d''*, of a diameter practically that of the internal diameter of the extension *b* of the cap B, between which cap and the washer C pack-

ing F is held, for a purpose presently explained. 55

G indicates a glass bottle held in the bottom of tube A, which in practice is filled with sulfuric acid, the size of such bottle varying with the size of the tube A. This bottle G,
60 it should be stated, after it is once filled with acid is sealed by heating the neck and running the same and glass stopper together. After the filled bottle G is placed in the tube A the proper proportions of water and bicarbonate of soda are put into the said tube A.
65 The full length of tube D D' is then placed in the cap B and securely packed at F to make the tube A air-tight, the lower end of section D' resting with its points on the bottle G and the cap B being screwed down to
70 hold the parts to form a complete extinguisher, as shown in Fig. 1.

When required for use, a slight tap on the bottle-shaped nozzle of tube D D' will drive
75 the tube to the flange *d''*, and in consequence break the bottle G, the acid or contents of which escaping produces the pressure which expels the extinguishing fluid held within the tube A, through the tube D D', out through
80 the nozzle end thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A hand fire-extinguisher comprising a
85 fluid-holding vessel, having at the lower end a breakable compartment adapted to hold gas or gas-producing liquid under pressure, a tube having an air-tight connection in the
90 top of the fluid-holding vessel but movable therein, its lower end extending down and normally held in contact with the gas-holding portion as specified.

2. The combination of the vessel A, the detachable cap B, having a straight portion,
95 the plug or washer C, held thereon, the bottle G, the discharge-tube formed of sections D D', the section D, having an enlargement at the top, the section D', having a threaded connection with section D, and a nozzle-like
100 end, and the packing for the upper tube-section D, all arranged substantially as shown and for the purposes described.

JOSEPH BUCHEL.

Witnesses:

A. P. TIFFT,
A. T. LEWIS.