

(No Model.)

C. W. CARYL.
FIRE EXTINGUISHER.

No. 278,879.

Patented June 5, 1883.

FIG. 1.

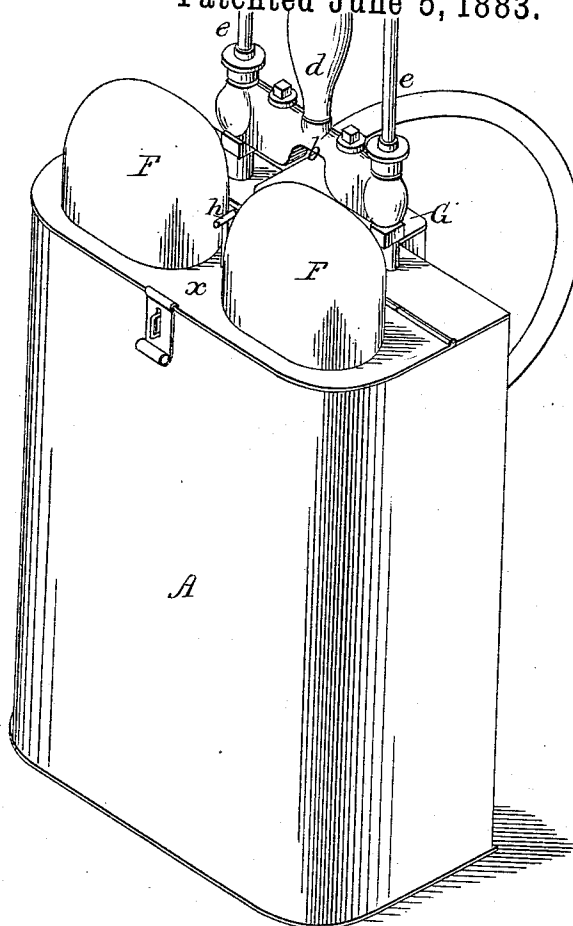


FIG. 2.

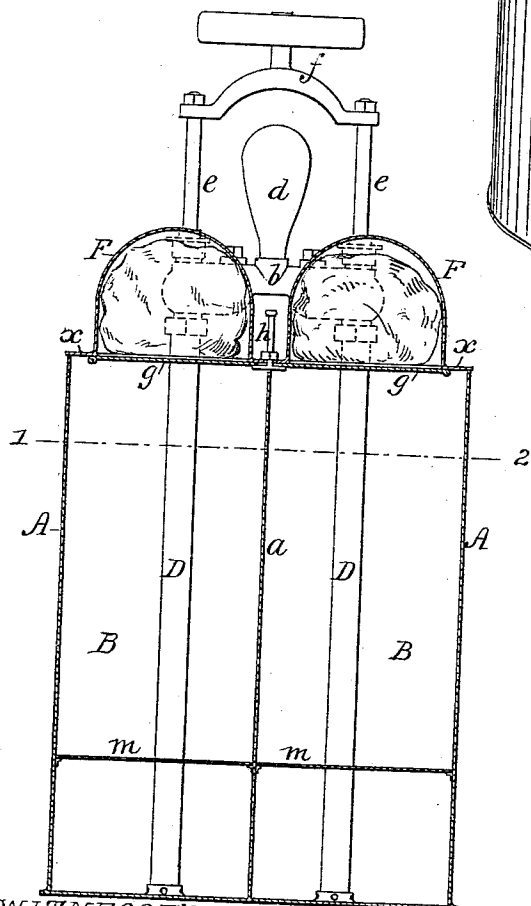
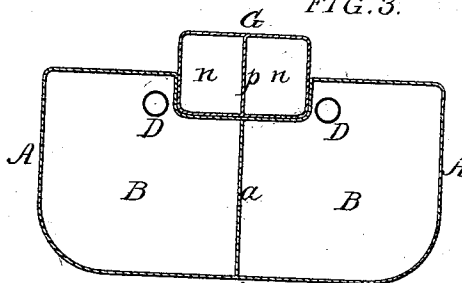


FIG. 3.



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UNITED STATES PATENT OFFICE.

CHARLES W. CARYL, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 278,879, dated June 5, 1883.

Application filed January 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. CARYL, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Fire-Extinguishers, of which the following is a specification.

My invention relates to certain Improvements in that class of fire-extinguishers in which two water-reservoirs are used, the water in each reservoir being charged with chemicals when the apparatus is to be used, and the two solutions being then drawn from the reservoirs by means of a duplex pump and mixed in the discharge-chamber of the latter, so as to generate carbonic-acid gas, the force of the projected stream being due partly to the pressure caused by the generation of the gas and partly to the operation of the pump.

The objects of my improvements are to permit the ready charging of the water in the reservoirs with the necessary chemicals, and to insure the introduction of each charge of chemicals into its proper reservoir.

In the accompanying drawings, Figure 1 is a perspective view of a fire-extinguisher with my improvements; Fig. 2, a transverse section of the same; and Fig. 3, a sectional plan on the line 1 2.

A is the casing of the apparatus, which may be made of light sheet metal, as it does not have to withstand pressure. This casing is provided with a hinged lid, *x*, and the interior of the casing is divided by a central partition, *a*, into two chambers or reservoirs, B B, with the lower end of each of which communicates a pump-barrel, D, the two barrels communicating above the top of the casing with a common discharge-pipe, *b*, having an air-chamber, *d*, and each barrel having a plunger, *e*, connected to a handle, *f*. The two reservoirs B are filled or partly filled with water, and on the breaking out of a fire the water in each reservoir is charged with a chemical substance or compound of such character that when the two solutions are mixed in the discharge-pipe *b* of the pump carbonic-acid gas will be generated and projected onto the fire.

Hitherto in apparatus of this class the charges have been kept in independent receptacles, which have to be handled separately in charging the apparatus, and it has frequently happened that in the excitement attending the

breaking out of a fire both charges have been introduced into one reservoir, and in consequence the apparatus has been rendered useless or its value seriously impaired.

In carrying out my invention I provide the lid *x* with receptacles F F for the chemical charges of the apparatus, one receptacle being directly over one reservoir B and the other over the opposite reservoir, and each receptacle having a hinged bottom, *g*, which, under ordinary circumstances, is retained in place by a turn-buckle, *h*, as shown in Fig. 2. When it is desired to use the apparatus this turn-buckle is manipulated so as to release the bottoms of the receptacles, which then swing downward and allow the charges to descend each into its proper reservoir, the apparatus being thus instantly prepared for action, and any mistake in charging being rendered impossible. Some distance above the bottom of each reservoir is a perforated plate or sieve, *m*, these sieves serving to prevent the charges (which are in powdered or granular form) from descending to the bottoms of the reservoirs and clogging the pumps. I prefer to wrap each charge loosely in thin paper, which prevents the powdered chemicals from adhering to the sides or bottom of the receptacle, but is not of such a character as to interfere with the free access of the water to the chemicals when the charges are dropped into the reservoirs.

It is advisable to supply the apparatus with a second charge of chemicals for use in case the first supply is exhausted before the fire is extinguished, and for this purpose I use a supplementary charging-vessel, G, which is fitted into a recess or pocket at the rear of the casing A, and has two chambers, *n n*, separated by a partition, *p*, one chamber containing the charge for one reservoir B and the other that for the opposite reservoir. The reservoirs being supplied with water and the lid *x* raised, the vessel G, while it is being emptied of its contents, is held so that its partition coincides with the partition *a*, one charge being thus directed to one reservoir and the other to the opposite reservoir.

I claim as my invention—

1. The combination of the casing A, containing two reservoirs, B, with the lid *x*, having two receptacles, F, one over each reservoir,

each receptacle having a hinged bottom, *g*, and both of the latter being under control of a central catch or turn-buckle, *h*, as set forth.

2. The combination of the casing A, containing two reservoirs, B, the lid having receptacles F, with hinged bottoms *g*, and the wrapped charges in said receptacles, as set forth.

3. The combination of the casing A, having a central partition, *a*, extending to the front

of the casing, with the charging-vessel G, having a central partition, *p*, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES W. CARYL.

Witnesses:

THOMAS DUGAN,
HARRY SMITH.