(No Model.)

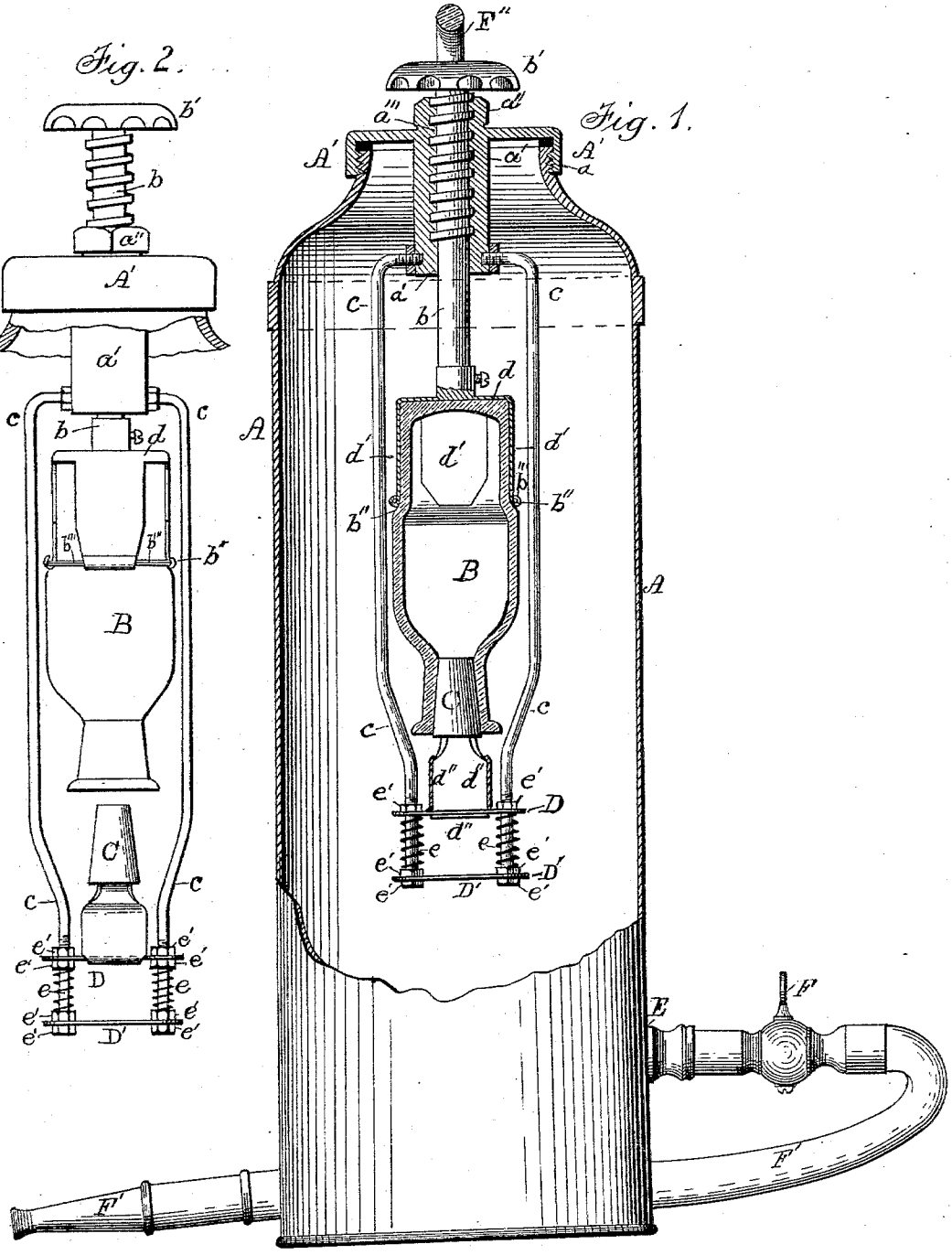
C. N. PERKINS.

PORTABLE FIRE EXTINGUISHER.

No. 565,215. Patented Aug. 4, 1896.

Fig. 2.

Fig. 1.



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UNITED STATES PATENT OFFICE.

CHARLES N. PERKINS, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR OF FIVE-EIGHTHS TO EVERETT L. ABBOTT, OF BROOKLINE, MASSACHUSETTS.

PORTABLE FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 565,215, dated August 4, 1896.

Application filed February 26, 1896. Serial No. 580,817. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. PERKINS, a citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Portable Fire-Extinguishers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in portable fire-extinguishers in which there are main and auxiliary receivers, the latter held within the former to hold securely the acid or equivalent chemicals, all of which will be hereinafter more particularly described and pointed out.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical transverse section of the extinguisher. Fig. 2 shows the apparatus removed from the main receiver.

A is the main receiver, which is made of any suitable metal.

B is the auxiliary receiver, which is of glass and is placed with its neck downward.

The main receiver A has a neck *a*, with screw-threads, to which is fitted a metallic cap A'. In the center of cap A' is secured a metallic plug *a'*, having a nut *a''* on the exterior end. The plug has in its center a hole *a'''*, which is screw-threaded for the reception of the rod *b*, which is threaded from the wheel *b'* about one-half of its length. On opposite sides of the plug *a'* there are two bent rods *c c* secured to it. These rods *c c* extend downwardly to receive between them a glass vial B, which has its closed end fastened to a plate *d*, secured to the lower end of the screw-rod *b*. The dependent clamps *d'* are secured to an annular groove *b''* in the bottle by wire *b'''*. The ground-glass stopper C is secured to a cross-plate D by metal straps *d''*. There is another plate D' below the plate D, on the same rods *c c*, and between the ends of these plates are springs *e e*, the purpose of which is to keep the stopper C firmly in its position, and the screw-nuts *e'* are to give proper tension to the springs.

The extinguisher, as shown in Fig. 1 of the drawings, is in its normal position and is carried by the handle F''.

The bottle B, when it is to be filled with acid or other material, is to be removed from the receiver A, as shown in Fig. 2, by turning the cap A' and unscrewing it from the neck, when the plug with the dependent parts can be taken out and the bottle reversed, and then by screwing the wheel *b'* the bottle will be withdrawn from the stopper. After filling the bottle the wheel *b'* will be turned and the bottle will be forced up to the stopper and tightly closed by a revolving spiral motion. The bottle will then be reversed and inserted in the receiver A with its neck down, and the cap A' screwed down on the neck *a*.

The exterior vessel or receiver has an outlet E at the bottom with a valve F and a short hose and nozzle F'. When the extinguisher is to be put in use, it can be carried to the fire and the wheel *b'* turned, so that the acid will be discharged into the fluid in the receiver A and the gas be immediately generated and be ready for use as soon as the fire is reached.

After using the apparatus the metallic vessel should be thoroughly cleansed, as also the hose and nozzle, and again filled with suitable material.

This apparatus has a hermetically-sealed bottle where the acid cannot affect the stopper. In cases where the bottle is to be broken, the broken glass has often stopped the flow of the solution, thereby bursting the extinguisher, and a number of people have been killed. It will be observed that the bottle is withdrawn from the stopper by a revolving spiral motion, which is the best method of withdrawing a sealed or ground stopper.

I claim—

The combination, in a portable fire-extinguisher, of the main receiver, A, an auxiliary receiver, B, having a revolving spiral motion closed by a sealed stopper, the screw-plug, *a'*, having dependent rods, *c c*, for sustaining the stopper, C, and plates D, D', separated and controlled by the adjustable spiral springs *e, e*, all substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES N. PERKINS.

Witnesses:

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