

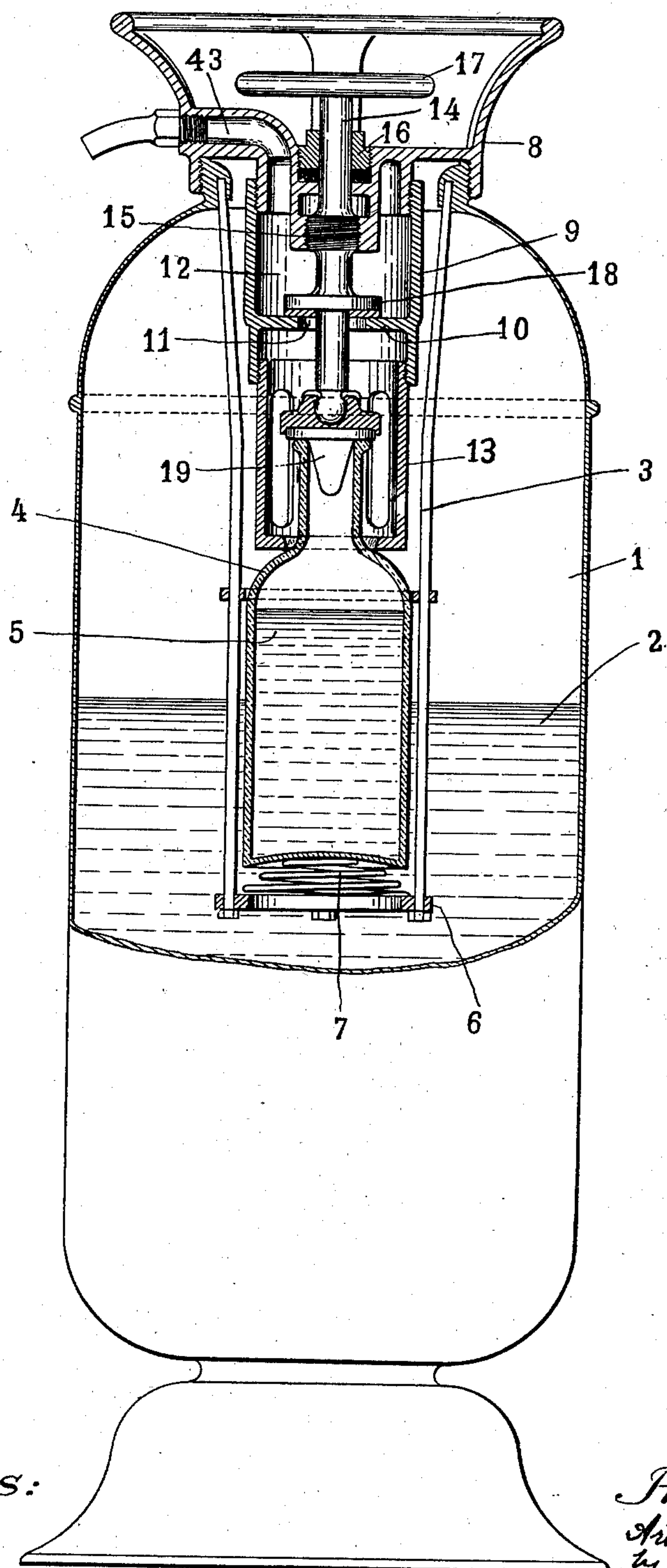
No. 750,566.

PATENTED JAN. 26, 1904.

A. C. BADGER.
CHEMICAL FIRE EXTINGUISHER.

APPLICATION FILED MAR. 14, 1903.

NO MODEL.



Witnesses:

A. E. Bullock
A. C. Ratigan

Inventor:

Arthur C. Badger
by
Wright, Brown & Smith
Attorneys

UNITED STATES PATENT OFFICE.

ARTHUR C. BADGER, OF BOSTON, MASSACHUSETTS.

CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 750,566, dated January 26, 1904.

Application filed March 14, 1903. Serial No. 147,720. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR C. BADGER, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Chemical Fire-Extinguishers, of which the following is a specification.

This invention relates to chemical fire-extinguishers; and its object is to enable the extinguisher to be handled roughly or moved about when not in use without causing chemical action or loss of any of the contents. To this end in the preferred embodiment of the invention hereinafter described I employ valve devices operated by the same stem or other valve-operating mechanism for closing both the inner and the outer receptacles when the apparatus is not in use.

The accompanying drawing represents a vertical sectional view, partly in elevation, showing a fire-extinguisher constructed according to my invention.

In the drawing, 1 is an outer receptacle of the usual form containing a liquid 2 and having a cage 3 depending from its neck for holding the inner receptacle or bottle 4, which contains the other liquid 5, the object being to unite these liquids when the extinguisher is inverted and create a pressure within the outer vessel, as usual. The cage 3 has a flange or abutment 6 at its lower end, between which and the bottle 4 is interposed a conical spring 7 for a purpose hereinafter described.

8 is a removable cap or cover screwed onto the neck of the outer vessel or canister 1 and to which is screwed internally a hollow casing 9, formed with a valve-seat 10, surrounding an opening 11. The interior space of the casing 9 above the valve-seat forms a chamber 12, from which leads an outlet-duct 43, with which the discharge-hose is connected. To the lower end of the casing 9 is screwed an adjustable skeleton cage 13, whose lower end abuts against the breast of the bottle 4 and confines the latter against endwise movement. It will be seen that the parts 9 and 13 are withdrawn by the removal of the cover 8, leaving the bottle free to be inserted in or removed from the cage 3.

14 is a valve stem or spindle adjustable with respect to the cover 8 by means of complementary screw-threads at 15 and passing through a suitable stuffing-box 16. The stem is provided at its upper end with a hand-wheel 17 for rotating it, and within the chamber 12 it is provided with a valve 18, cooperating with the valve-seat 10. At its lower end the stem carries a stopper or valve 19 for controlling the mouth of the bottle 4.

When the extinguisher is not in use, the stem 14 is screwed inwardly until the valves 18 19 close the valve-opening 11 and the mouthpiece of the bottle, respectively, the spring 7 allowing the upper valve 18 to seat after the lower valve 19 is already seated. The breast of bottle 4 moves away from the lower end of cage 13 a slight distance when the valves are seated. When the parts are thus disposed, all meeting of the liquids is prevented and communication between the bottle 4 or the interior of the canister and the chamber 12 or the discharge-outlet is effectually prevented. The extinguisher may therefore be subjected to agitation or even inverted with impunity. The adoption of the valve 18 avoids the necessity for employing any other kind of a valve for controlling the outlet 43 or the discharge-hose. When the extinguisher is to be used, the stem 14 is merely screwed outwardly and the extinguisher inverted, whereupon the two liquids meet and create a pressure, as usual.

I claim—

1. In a fire-extinguisher, a container or canister having an outlet, an inner receptacle adapted to discharge into said canister, an adjustable stem having rigid valves controlling said outlet and the mouth of said receptacle respectively, and yielding means permitting one valve to seat after the other.

2. In a fire-extinguisher, a container or canister, a valve-chamber therefor having an inlet from said canister surrounded by a valve-seat and having also a discharge-outlet, an inner receptacle adapted to discharge into said canister, an adjustable stem having a rigid valve in said valve-chamber cooperating with the valve-seat thereof and a second rigid valve cooperating with the mouth of said inner re-

ceptacle, and yielding means permitting one valve to seat after the other.

3. In a fire-extinguisher, a canister having a bottle-cage, an outlet-chamber provided with
5 a discharge-outlet, a bottle mounted in said cage, a spring interposed between the bottle and cage and a stem having positively-seating valves for controlling respectively the bottle-

mouth and the passage between said canister and outlet-chamber. 10

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

ARTHUR C. BADGER.

Witnesses:

A. C. RATIGAN,
R. E. BULLOCK.