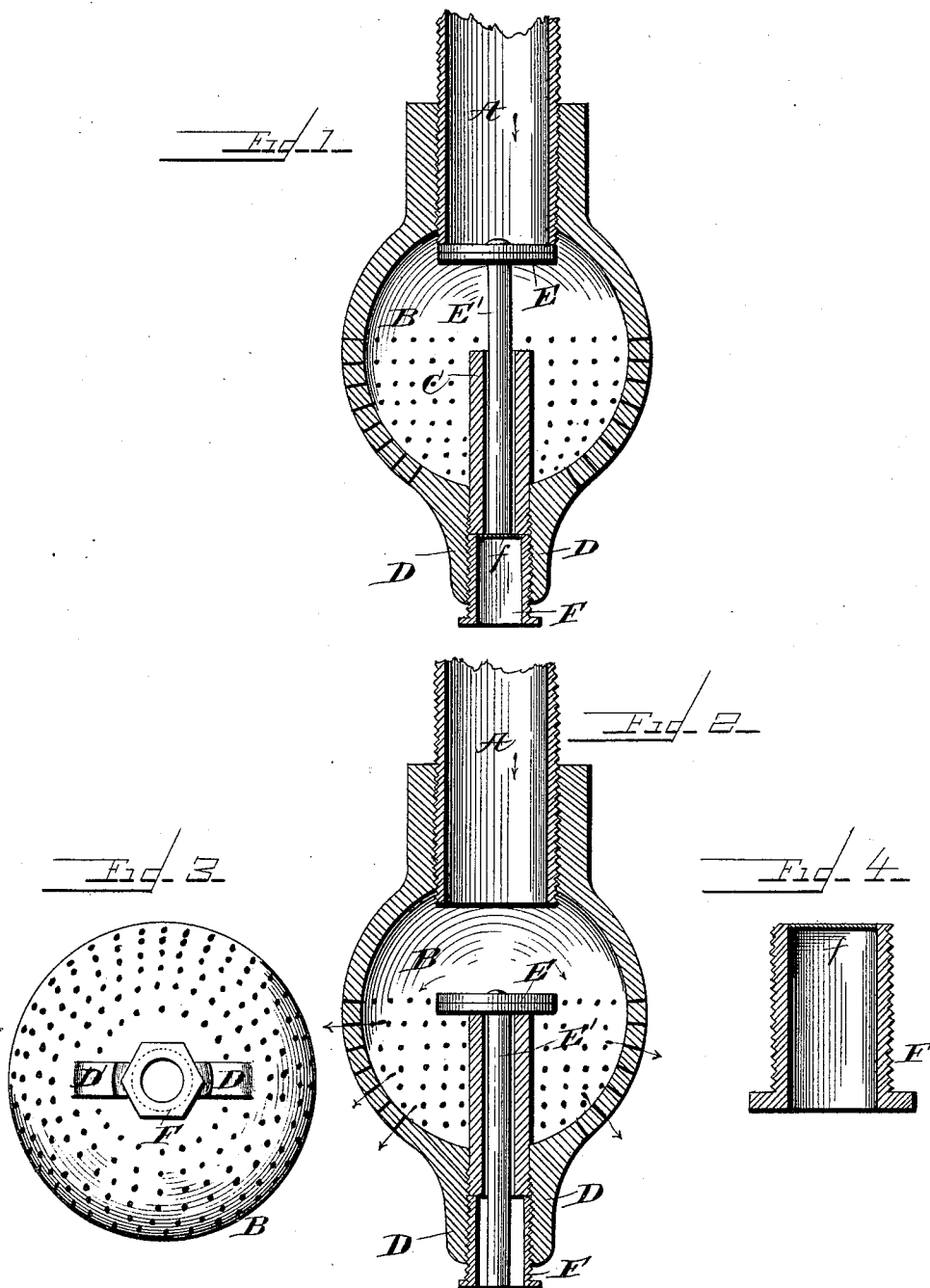


(No Model.)

G. E. DAVIS.
FIRE EXTINGUISHER.

No. 463,725.

Patented Nov. 24, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE E. DAVIS, OF SWANSEA, MASSACHUSETTS.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 463,725, dated November 24, 1891.

Application filed April 28, 1891. Serial No. 390,763. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. DAVIS, a citizen of the United States, residing at Swansea, (Centre,) in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in 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.

My invention relates to that class of fire-extinguishers in which water is forced upon the fire in the form of a spray, and is designed more especially for dwelling-houses, but can be used with equal advantage in stores, factories, steamboats, and, in fact, in all places where water power can be had.

The object of my invention is, first, to provide a fire-extinguishing apparatus that will be automatic in its action; second, one that will be simple, yet substantial, ornamental, and inexpensive, and, third, one that will, as far as possible, drive the air out of the room and fill the room with spray. The globe is perforated in such a manner as to completely cover the room with spray, the lower half only of the globe being perforated. The top row of perforations is at right angles, and each succeeding row is given a greater angle until the bottom of the globe is reached, said bottom row pointing direct to the floor, a valve in the globe having a valve-stem, which works up and down in a stationary tube in the globe. Said valve is closed and held in position by a bushing screwed between two shoulders, which are cast on the outside of said globe, the bushing having an inside thread, which contains a preparation of metal which, at a certain degree of heat, will melt and cause the valve-spindle, which rests on the said metal, to drop, thereby opening the valve and letting on the water. If desired, the water may be forced out by steam.

In the drawings, Figure 1 is a central sectional view of the extinguisher with the valve closed. Fig. 2 is a similar view showing the valve open. Fig. 3 is a bottom plan view. Fig. 4 is an enlarged view of the bushing or cartridge.

A represents water-pipe, and B the globe attached thereto. The globe is provided with an annular projection *a* and perforations *b*, which are only in the lower half of the globe.

C is a tube which extends upward in said globe beyond the line of the uppermost row of perforations *b*, and may, if preferred, be cast integral with said globe.

D are lugs which are cast on the bottom of the globe and are provided on their inner faces with screw-threads.

E is the valve provided with a stem *E'*.

F is a plug or bush containing a film of solder *f* or other fusible material.

The valve being placed in the globe and its stem in the tube C, which forms a well for said stem, I enter the plug or bush between the shoulder D and revolve it on its screw-threads until the valve is seated on the pipe A. Thus it will be seen that the valve-stem rests upon the plug and is forced upward by the same. The room being on fire raises the temperature and the same naturally ascends and entering the plug flows up against the fusible film, and at a certain temperature melts it, thereby taking away the support of the valve, which, by its own weight or by the force of the water, drops down and seats itself on the tube C, thereby preventing the water from entering said tube. The water immediately upon being released rushes in and falls on the valve which radiates it. The water then passes through the perforations and enters the room in the form of spray. After the device has been in operation it can be adjusted and put in readiness for another fire in a short space of time by simply putting in another plug or bush containing the fusible film and screwing it up until the valve-stem rests on the film and the valve is closed. These plugs are sold with the extinguisher at a small cost.

What I claim, and desire to secure by Letters Patent, is—

In a fire-extinguisher, the combination, with a perforated globe having an annular projection or collar *A'* internally screw-threaded, lugs D D, screw-threaded and cast integrally with said globe at its base, and the tube C, extending into the globe, the valve E

with its stem working in said tube, of a supply-pipe extending into said globe and forming a valve-seat, and the hollow plug F, having a film *f* of fusible material entirely closing
5 one end of said plug, said plug being secured by screw-thread connection between the lugs D D, all substantially as described.

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

GEORGE E. DAVIS.

Witnesses:

JOHN MASON,
WALTER BENNETT.