

(No Model.)

W. H. PERCIVAL.

APPARATUS FOR AUTOMATICALLY EXTINGUISHING FIRES.

No. 347,194.

Patented Aug. 10, 1886.

Fig 1

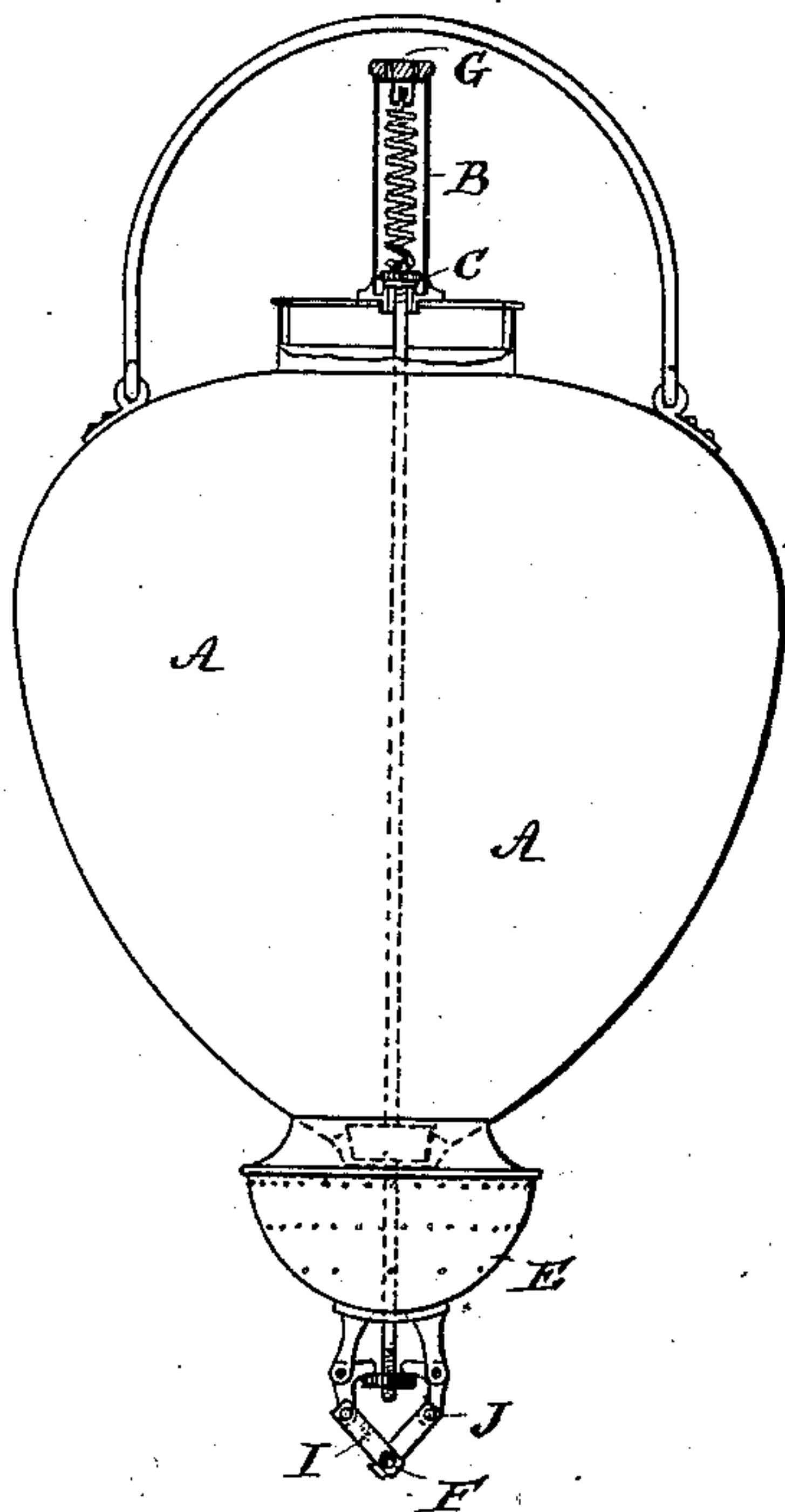


Fig. 2.

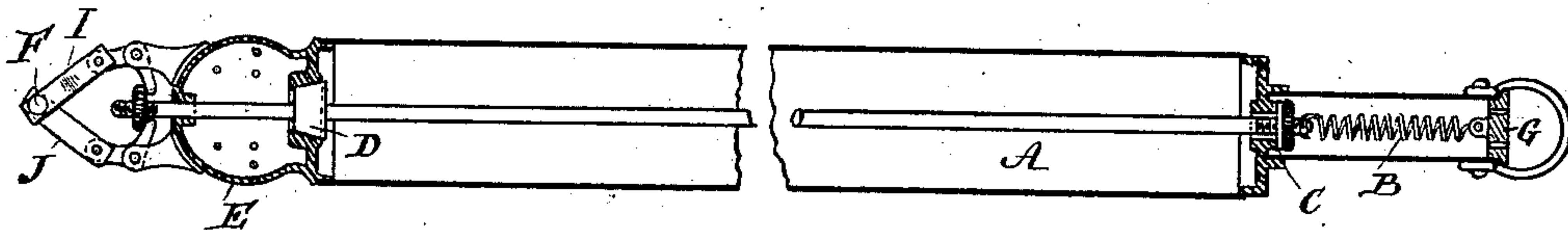
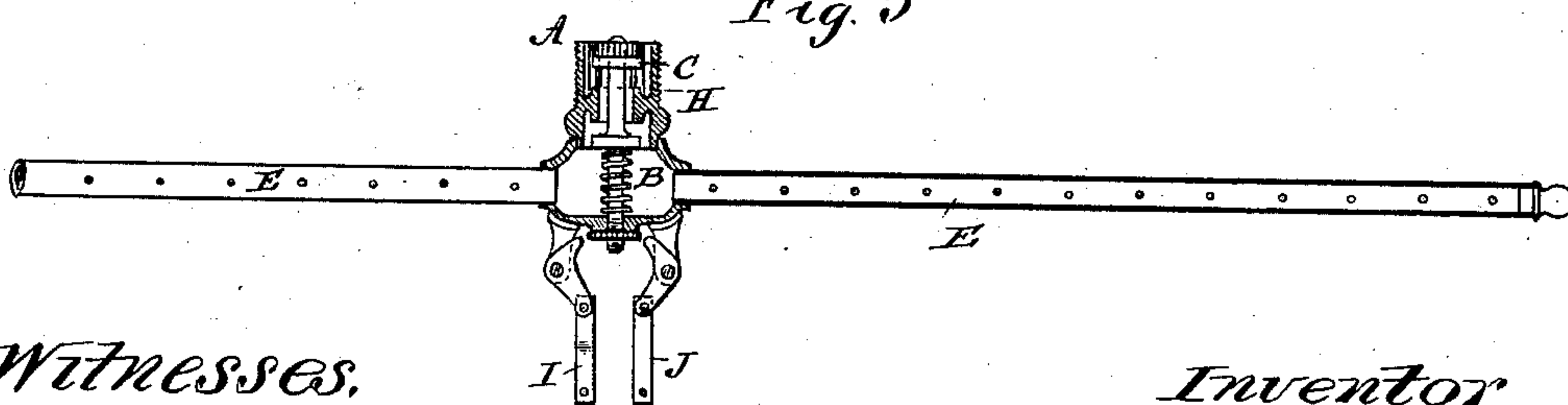


Fig. 3



Witnesses,

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UNITED STATES PATENT OFFICE.

WILLIAM HENRY PERCIVAL, OF 23 WESTBOURNE VILLAS, COUNTY OF MIDDLESEX, ENGLAND.

APPARATUS FOR AUTOMATICALLY EXTINGUISHING FIRES.

SPECIFICATION forming part of Letters Patent No. 347,194, dated August 10, 1886.

Application filed June 15, 1886. Serial No. 205,264. (No model.) Patented in England January 21, 1886, No. 941.

To all whom it may concern:

Be it known that I, WILLIAM HENRY PERCIVAL, a subject of the Queen of Great Britain, residing at 23 Westbourne Villas, in the county of Middlesex, England, have invented an Improved Apparatus for Automatically Extinguishing Fire, (for which I have obtained a patent in Great Britain, No. 941, bearing date January 21, 1886,) of which the following is a specification.

The object of my invention is to provide a simple, portable, and effectual fire-extinguishing apparatus which shall work automatically in case of fire, and at the same time shall not be unsightly when not thus employed; and my invention consists in the construction and arrangement of a globular or other form of vessel capable of being ornamented as required, and suspended from the ceiling or other suitable part of a room, and provided at its lower part with a suitable rose or other similar spray-diffusing arrangement, such vessel containing the fire-extinguishing liquid, the opening from the said globular or other vessel into the said rose or other arrangement being closed by a suitable metallic valve held tightly in place by a spiral or other suitable metallic spring, so as to be air-tight, and thereby to prevent evaporation, and in the event of a fire the contents of the said vessel will be caused to be discharged all round to some distance, (by the valve being opened as hereinafter described,) varying according to the pressure of the liquid contained in the vessel. The arrangement of valve which I find to be best suited for the purpose is a rod carrying a suitable valve or plug at each end. The upper valve or plug is caused to open for the admission of air at the same time as the lower valve allows the liquid to escape into and from the rose or other spray-diffusing arrangement, a set-nut being provided on the lower end of the valve-rod, (where it extends through and below the said rose,) so as to hold the valves in their seats as required by means of an arrangement of jointed arms, such arms being secured in position by a fusible pin, which becomes softened by heat, when the spring opens the valves and the liquid is discharged from the extinguishing apparatus. The liquid employed for the above purpose may be "car-

bonic" fire-extinguishing liquid or any other suitable liquid.

By the above arrangement of apparatus it will be seen that the liquid will always be discharged in case of fire, although there may be no one at hand to take any steps for extinguishing the same.

In order that my invention may be fully understood, I will proceed to describe it more fully by the aid of the accompanying drawings, in which are represented the parts of apparatus above referred to.

Figure 1 represents one form of the fire-extinguishing apparatus, the greater part being in elevation; but the upper part, showing the spring acting upon the valve, is in section. Fig. 2 is another form of the apparatus, only differing from Fig. 1 in size and shape, this figure being, moreover, shown entirely in section. Fig. 3 shows an arrangement in section, which can be connected at H to a cistern or other vessel as required, the principle of action corresponding with that shown in the preceding figures.

In these several figures the same letters of reference indicate corresponding parts.

A is the body of the vessel.

B is the spring. (Shown in tension in Figs. 1 and 2 and in compression in Fig. 3.)

The rose or spray-diffusing arrangement is shown at E.

C and D in Fig. 2 are the valves upon the valve-rod, and C in Fig. 3 also shows the valve, only one being used in that case.

The fusible pin is shown at F in Figs. 1 and 2.

In Figs. 1 and 2 the apparatus is shown as set ready for use in case of fire; but in the modification represented in Fig. 3 it is shown as it would be when discharging the contents of the vessel A.

The top G is perforated, so as to admit air as required when the contents are to be discharged through E.

I and J are the two jointed arms, through which the pin F passes, whereof I is forked to receive the end of the arm J.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In an apparatus for automatically extinguishing fire, the combination of a vessel to

contain a fire-extinguishing liquid, a rose connected with said vessel, a spring-actuated valve-rod, jointed arms for locking said valve-rod, and a fusible pin connecting the outer
5 ends of said arms, substantially as described.

2. An apparatus for extinguishing fire, composed of a vessel to contain the fire-extinguishing liquid, the rose E, the valve C, a spring, B, in the valve-rod, the jointed arms I J, and
10 the fusible pin F, substantially as described.

In witness whereof I have hereunto signed

my name in the presence of two subscribing witnesses.

WILLIAM HENRY PERCIVAL.

Witnesses:

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