

No. 725,271.

PATENTED APR. 14, 1903.

W. MORGAN.
AUTOMATIC SPRINKLER.
APPLICATION FILED JULY 7, 1902.

NO MODEL.

Fig.1.

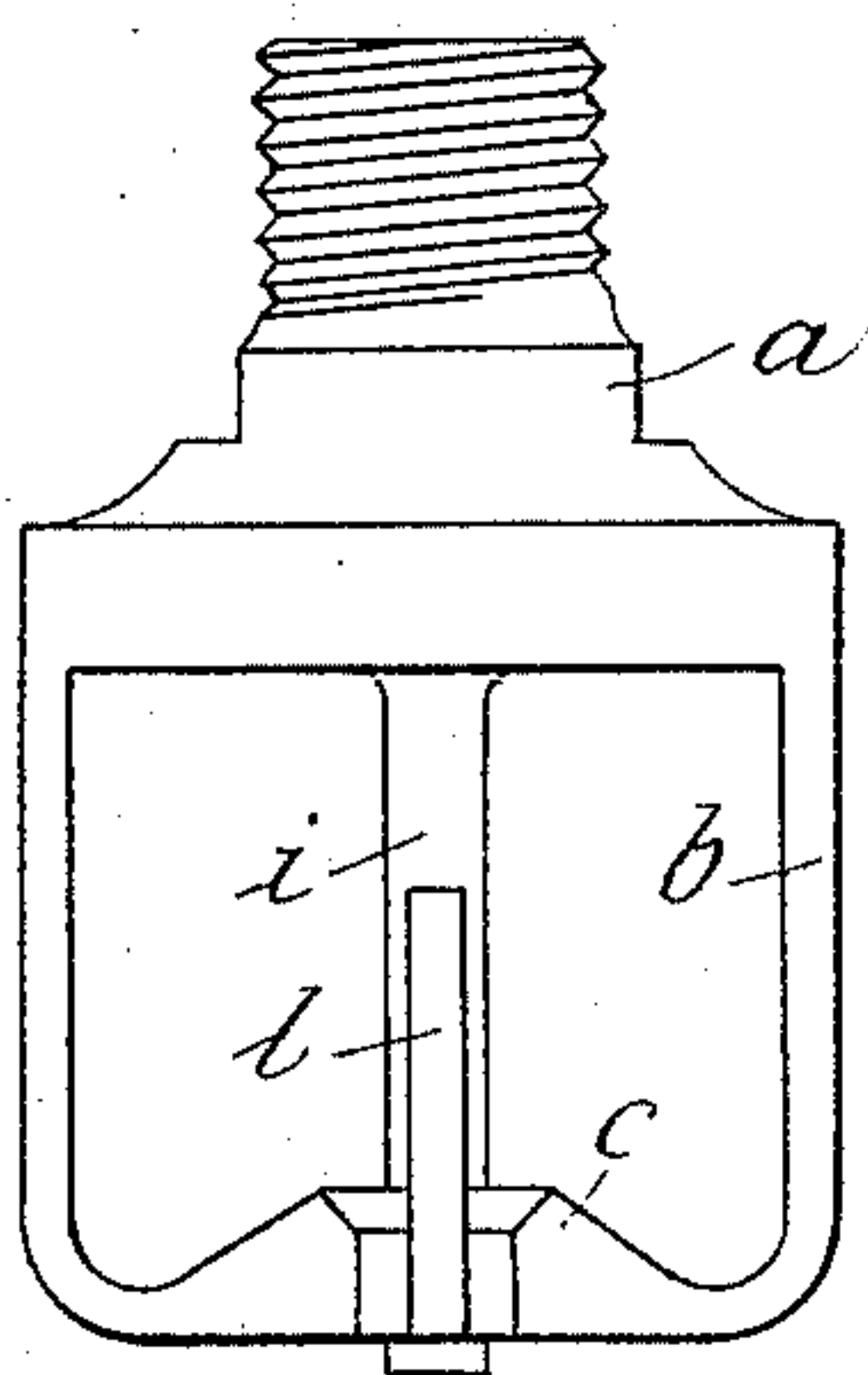
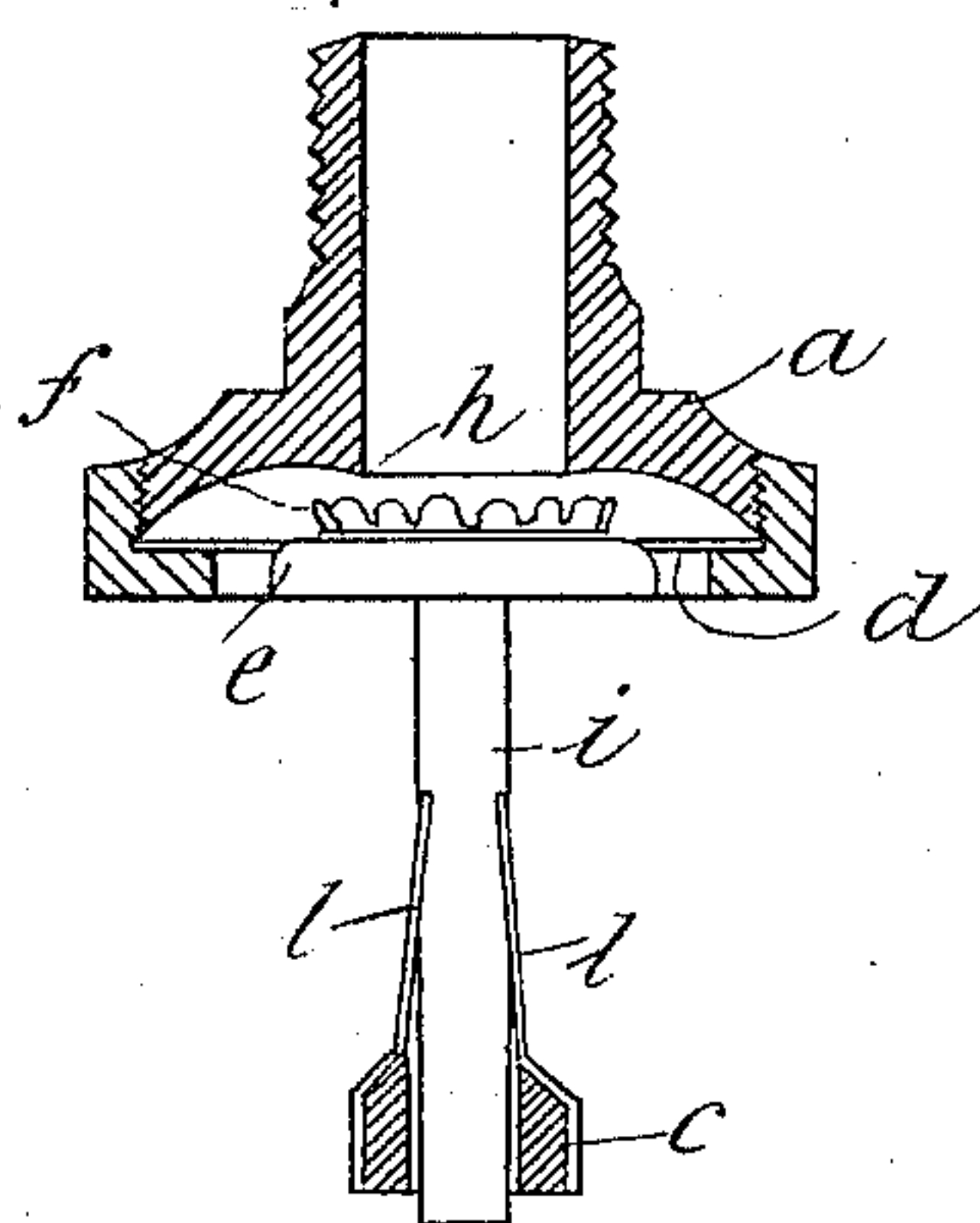


Fig.2.



WITNESSES.

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WILLIAM MORGAN, OF DURBAN, NATAL.

AUTOMATIC SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 725,271, dated April 14, 1903.

Application filed July 7, 1902. Serial No. 114,888. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MORGAN, a subject of the King of Great Britain and Ireland, residing at Durban, in the Colony of Natal, South Africa, have invented certain new and useful Improvements in or Connected with Automatic Sprinklers; 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 for improvements in or connected with automatic sprinklers has for its object to provide a sprinkler that shall be certain in its action and shall give a free flow for the sprinkling-water and the valve of which shall be perfectly tight and not liable to leakage; and it consists in providing a flexible valve-seating that surrounds the deflector and is pressed by the water-pressure against the valve held in position by strips soldered with fusible solder to the valve-spindle and to a conical or curved boss guiding the valve-spindle.

In the accompanying sheet of illustrative drawings, Figure 1 is an elevation of a sprinkler constructed according to this invention, and Fig. 2 is a sectional elevation of the same.

The cap *a* is provided at its outer end with a screw-thread adapted to screw onto or into the water-source connection and at the inner end with a central nipple *h* and an external thread. The inner end of a skeleton casing *b* is screwed onto the inner end of the cap *a* and at its outer end is provided with a central boss *c*, that is bored to receive the valve-spindle. A flexible metal ring *d* is clamped between the cap *a* and the casing *b* and forms the flexible seating against which the valve is held. The seating on the valve *e* surrounds an annular series of deflectors *f*, and the nipple *h* on the cap *a* is adapted to bear on the valve just inside the deflectors *f*. The inner

end of the boss *c*, through which the valve-spindle passes, is tapered or curved and the outer end of the valve-spindle *i* notched. Metal strips *l* are soldered with a fusible solder to the valve-spindle and bearing against the notches and also to the boss *c*, the valve being forced up against its seat while the strips are being soldered. When the water-service is connected, the pressure forces the flexible seating *d* against the valve and insures a tight joint. When the sprinkler becomes heated to a prearranged temperature, depending on the solder used, the strips *l* will become unsoldered and be forced by the water-pressure acting on the valve over the beveled boss, and the valve will open. The water will impinge on the body of the valve within the deflectors *f* and be sprayed by the deflectors *f*.

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

1. The improved sprinkler consisting of a casing, a flexible seating secured in the casing, a valve bearing against the seating, deflectors on the valve within the seating, strips soldered to the valve and to the casing and holding the valve against its seating.

2. The improved sprinkler consisting of a cap having a central nipple and adapted to screw into the service-pipes, a skeleton casing secured to the cap, a flexible seating surrounding the nipple, a valve with guided spindle bearing against the flexible seating, annular deflectors situated on the valve within the valve-seating and outside the nipple, and strips soldered to the valve-stem and to a beveled boss guiding the valve-stem.

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

WILLIAM MORGAN.

Witnesses:

PETRUS ROTH, CH. WEID.