C. BRENT.

SPRINKLER HEAD.

APPLICATION FILED MAR. 25, 1907.

907,000. Patented Dec. 15, 1908.

Fig. 1.

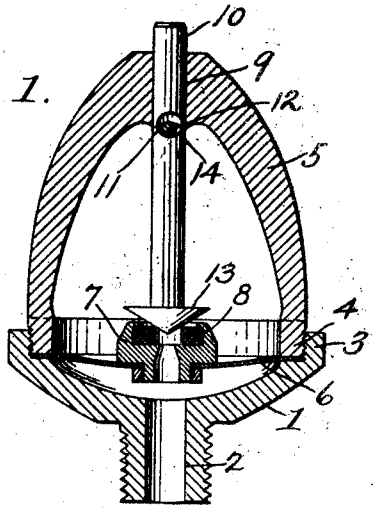


Fig. 2.

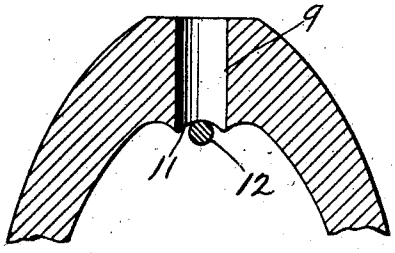
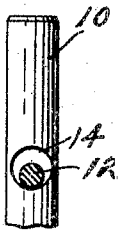


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES BRENT, OF BRANDON, MANITOBA, CANADA.

SPRINKLER-HEAD.

No. 907,000. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed March 25, 1907. Serial No. 364,256.

To all whom it may concern:

Be it known that I, CHARLES BRENT, residing at Brandon, in the Province of Manitoba and Dominion of Canada, have invented a certain new and useful Improvement in Sprinkler-Heads, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to improvements in sprinkler heads set forth in my co-pending application for sprinkler heads, Serial Number 342,015 filed Nov. 5, 1906, wherein a valve and spreading device is mounted in a suitable frame above a valve seat and nozzle carried by a diaphragm, whereby when the valve is pressed against its seat it prevents a discharge through the head. A suitable device is arranged in conjunction with the valve and its seat for holding the former upon the same and it is in connection with this device that the present invention has been devised. In this co-pending application an opening is arranged through the frame and through the valve stem in a manner such that when the valve is seated these openings register and a fusible pin is inserted therein for holding the valve upon its seat.

It has been found that there is a draw back to this construction due to the fact that the heat does not get ready access to the pin, inasmuch as the surrounding metal of the frame at the valve stem prevents such access. In the present invention therefore the parts are arranged in a manner such that the opening in the valve stem is larger than the fusible pin and is arranged in the stem so that when the valve is firmly seated the pin will take in suitable recesses in the under side of the frame at the top, so that the greatest possible amount of free space is provided about the pin.

The invention may be further briefly summarized as consisting in the construction and combination of parts hereinafter set forth in the following descriptions, drawings and claim.

Referring to the drawings Figure 1 is a sectional view of a head constructed, according to my invention; Fig. 2 is a sectional view of the upper part of the frame showing the pin in place and Fig. 3 is a detail view of a portion of the valve stem with the pin in place.

In the drawings a preferred construction is set forth but this may be varied to meet any desired form and construction. In this embodiment, however, 1 represents the base which is provided with a discharge opening 2 and a threaded cylindrical part 3 adapted to receive a threaded portion 4 of the frame 5, which holds the diaphragm 6 in place upon the base. This diaphragm carries the nozzle 7 which is provided with a seat 8. The frame 5 has an opening 9 in the upper part thereof for the reception of the valve stem 10 and also has at the lower part thereof recesses 11 for the reception of the fusible pin 12. These recesses 11 are preferably of arc-shape but are based upon a greater radius than that of the pin whereby the latter will engage in the recess at a single point and the greatest amount of space possible is thereby provided about the pin as shown in Fig. 2.

The valve stem 10 is provided with a valve 13 and an opening 14 which is greater in diameter than the fusible pin 12 and is located at a point such that when the valve 13 is firmly seated, with the diaphragm 6 deflexed, the fusible pin 12 may be inserted through the opening 14 and into the recesses 11 in a manner such that the valve is held firmly upon its seat.

In operation the pin assumes the position in the opening of the stem and in the recesses in the manner shown in the drawings, so that there is free space about the pin in the recesses of the frame and there is free space above the pin in the opening of the valve stem, whereby heat produced by the fire may readily act upon this pin without necessitating the heating of all of the parts to the extent of fusing it.

Having described my invention, I claim:

In a sprinkler head, in combination, a base, a nozzle a valve seat mounted in said base, a supporting frame extending above said base, a guiding member carried by said frame and having an opening through the same for a

valve stem and provided with curved recesses on each side of said opening at the bottom, a valve for operating said valve seat, a stem for said valve slidably mounted in the opening in said guiding member and having a hole in the stem and a fusible pin of less diameter than the hole in said stem and adapted to project laterally and bear in the curve recesses at the bottom of said guiding member.

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

CHARLES BRENT.

Witnesses:

MICHAEL J. GALVIN,

HARRY E. MONTGOMERY.