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P. V. METCALFE

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ESCUTCHEON FOR A SPRINKLER HEAD

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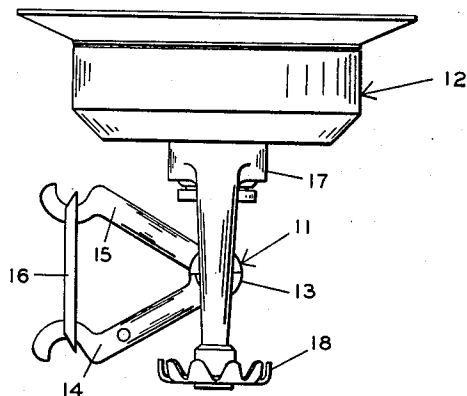


FIG. 1

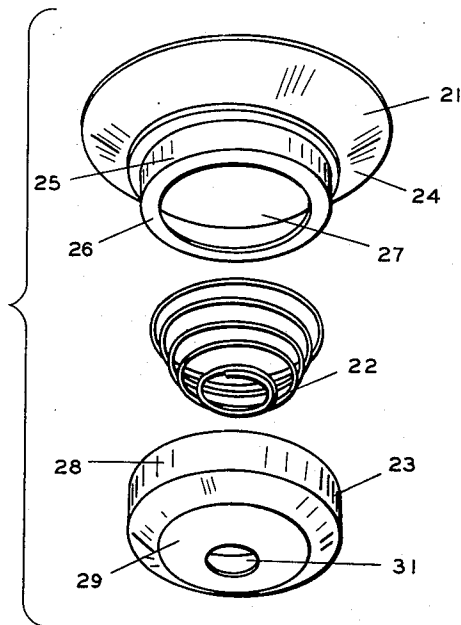


FIG. 2

INVENTOR.

PAUL V. METCALFE

BY

Jerome R. Cox

ATTORNEY

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ESCUTCHEON FOR A SPRINKLER HEAD

Paul V. Metcalfe, 1401 Doten Ave., Columbus, Ohio

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1 Claim. (Cl. 126—317)

The invention disclosed and claimed in this application relates to sprinkler systems.

Automatic sprinkler systems for minimizing fire damage are used extensively. Such automatic sprinkler systems consist of main supply pipes (often positioned above the ceiling) and sprinkler heads attached thereto (often supported by individual supply pipes extending downward from the main supply pipes through the ceiling). The heads are supplied with water by the pipes and are also provided with a valve arranged to open if a fire occurs in the vicinity thereof. In one form this valve is restrained in a closed position by a meltable link. When a fire occurs in the vicinity of such a sprinkler head, the temperature of the fire causes the link to melt and the melting of the link releases the restraint on the valve allowing the valve to open with the result that water supplied to the heads from the pipes is sprayed on the ceiling, walls and floor of the building adjacent thereto to bring the fire under control.

As stated, such sprinkler heads are often attached to the water supplying pipes adjacent to the ceiling and extend through the ceiling. In order to hide the hole through the ceiling and to protect and beautify the installation, shields or escutcheons are used. Heretofore, such escutcheons have been of two types. The first is a non-adjustable escutcheon which consists of a flat bell shaped rounded shield embracing the connecting pipe and intended to be held into contact with the ceiling by the sprinkler head. The second is a similar but deeper device which is adjustable. It consists of two parts which are forced together and thus can be compressed or extended on initial installation to make up for slight differences in the distance that the head is positioned below the ceiling due to incorrect measurements, slightly faulty installations, etc.

These older style escutcheons (both the shallow non-adjustable type as well as the deep adjustable type) in time drop away from the ceiling even though properly fitted when installed. Both of these types of escutcheons are thus subject to difficulties. If there is a sagging of the head or of the ceiling the distance from the head to the ceiling will vary from that at original installation with a result that the escutcheon sags away from the ceiling. The distance between the head and the ceiling may vary with differences in temperature at the various seasons of the year with a result that unsightly cracks and openings develop. In contrast to these prior art devices I have developed and discovered an escutcheon that is automatically adjustable.

One of the objects of my invention, therefore, is the provision of a new, useful and ornamental escutcheon for sprinkler heads for automatic sprinkler systems.

A further object of my invention is the provision of such an escutcheon which is automatically adjustable relative to the ceiling and the sprinkler head.

Further objects and features of the invention will be apparent from a reading of this specification and the following claim when considered in connection with the accompanying drawings.

In the drawings:

I have shown for illustration an embodiment of my invention.

Therein, Fig. 1 is a view in elevation showing a sprinkler head equipped with an embodiment of my invention; and

Fig. 2 is an expanded perspective view showing in perspective the three parts of the embodiment of my invention shown in Fig. 1.

Referring still to the drawings for a detailed description of my invention, it may be seen that I have shown in Fig. 1 a sprinkler head 11 and escutcheon 12, the head having a valve 13 controlled by levers 14 and 15 and normally held in a closed position by a meltable link 16. It has an upper enlarged portion 17 and a sprinkler portion 18.

The escutcheon 12 is made up of a cover 21, conical spiral spring 22, and a cap 23. The cover 21 is formed with a flaring skirt 24, a tubular portion 25, and a ledge 26. It is also formed with an opening 27. The cap 23 has a tubular portion 28 which when assembled with the cover 21, and when the spring 22 is compressed, fits snugly and telescopes over the tubular portion 25 of the cover 21. It is formed with an end 28 closed except for a hole 31. The spring 22 is positioned between the ledge 26, and the end 29.

Operation

The escutcheon assembly 12 is assembled on the individual supply pipe leading from the sprinkler head 11 to the main supply pipe with the individual supply pipe passing through the holes 31 and 27 and through the center of the spiral spring 22. When the head is assembled with the individual pipe, the spring 22 is compressed more or less depending on the distance between the upper portion 17 of the sprinkler head 11 and the ceiling. As the distance between the ceiling increases or decreases, the spring 22 is expanded or contracted to keep the escutcheon in place, to hide completely the connections and to present a pleasing appearance at all times.

It is to be understood that the above described embodiment of my invention is for the purpose of illustration only and various changes may be made therein without departing from the spirit and scope of my invention.

I claim:

45 An escutcheon for a sprinkler head for an automatic sprinkler system arranged for installation between the ceiling of a building and said sprinkler head comprising a cover formed with a frusto conical flaring skirt portion, arranged with the larger diameter of said flaring skirt frusto conical portion contacting the ceiling, with a tubular portion extending downward from the smaller diameter of said frusto conical portion and with an annular ledge integral with said tubular portion and extending inward therefrom perpendicular to the surface of said tubular portion; a cap having one end closed except for a relatively small hole, having a flaring skirt extending outward and upward from said closed end and integral therewith and having a tubular portion integral with the larger diameter of said flaring skirt, extending upwardly therefrom, telescoping over the tubular portion of the cover and snugly fitting said tubular portion of the cover; and a conical spiral spring having a wide end and a narrow end and having its wide end resting on said ledge and its narrow end contacting the closed end of the cap and compressed between the cover and the cap.

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