

(No Model.)

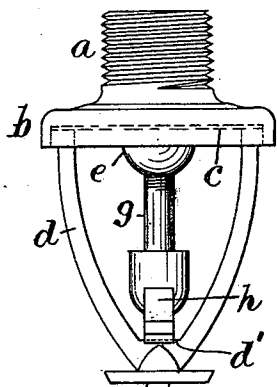
G. E. WRIGHT.

DEVICE FOR PLUGGING SPRINKLER HEADS.

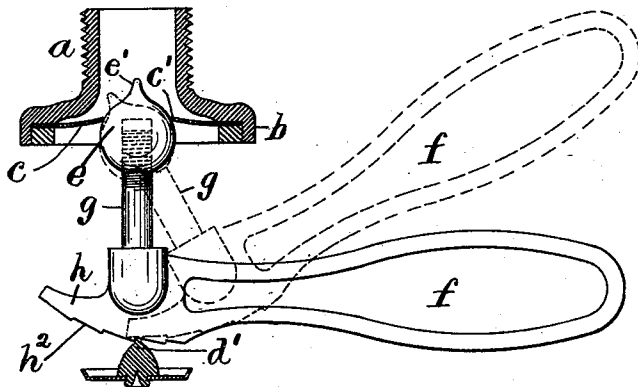
No. 478,181.

Patented July 5, 1892.

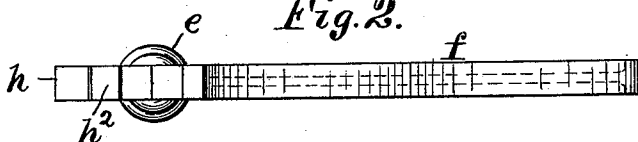
*Fig. 3.*



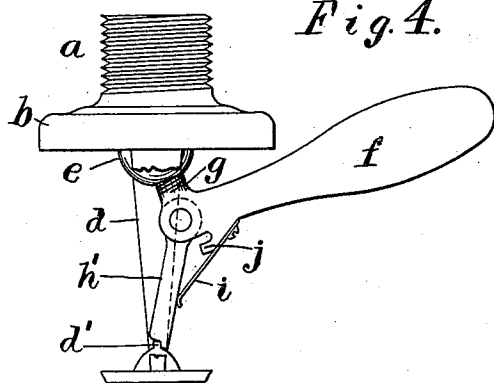
*Fig. 1.*



*Fig. 2.*



*Fig. 4.*



Attest:  
L. Lee  
Edw. C. Kinsey

Inventor.  
G. E. Wright, per  
Crane & Miller, Atty.

# UNITED STATES PATENT OFFICE.

GEORGE E. WRIGHT, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF  
TO DENNIS HOULIHAN, OF SAME PLACE.

## DEVICE FOR PLUGGING SPRINKLER-HEADS.

SPECIFICATION forming part of Letters Patent No. 478,181, dated July 5, 1892.

Application filed April 22, 1892. Serial No. 430,197. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. WRIGHT, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Devices for Plugging Sprinkler-Heads, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention relates to the sprinkler-heads which are arranged within buildings to automatically discharge a spray of water in case of fire within the apartment where the sprinkler-head is located.

15 The invention is intended to furnish a means of plugging up a sprinkler-head when its valve is accidentally dislodged and the water is unnecessarily discharged to the detriment of the building or of any goods in the vicinity. As  
20 the sprinkler-heads are supplied with water from a common source, it is not possible to shut off the water from a single head in case the valve is accidentally displaced, and considerable injury frequently arises from the flow of  
25 water which results from such an accident.

The present invention consists in a new article of manufacture in the form of an attachment for application to sprinkler-heads and adapted to promptly plug the aperture of the  
30 sprinkler-head, and thus stop the escape of water and any injury to the building or property that might result therefrom. This attachment consists in a plug, a handle attached thereto, and an abutment opposed to the plug  
35 for engagement with the arch of the sprinkler-head.

Two forms of the apparatus are shown in the annexed drawings and others may be devised to embody the invention.

40 Figure 1 shows the sprinkler-head in section, with the plug and handle shown in their operative position in full lines and a representation in dotted lines of the position in which the attachment is first applied to the  
45 sprinkler-head. Fig. 2 is a bottom plan of the attachment. Fig. 3 is an end view of the attachment engaged with the sprinkler-head, and Fig. 4 is a side elevation of the sprinkler-head with the attachment in a modified form.

50  $a$  is the screw by which the sprinkler-head is usually attached to the pipe connections,

and  $b$  the holder for the valve-seat, which latter is shown in Fig. 1 as a flexible diaphragm  $c$  with central aperture  $c'$ .

$d$  is the arch, provided at its bottom with a seat  $d'$ , against which the ordinary valve-fix-  
55 tures are pressed to hold them normally in place. The valve and its fixture are omitted from the drawings to show the use of the attachment when such valve is accidentally  
60 displaced.

$e$  is the plug applied to the water-aperture  $c'$ , and  $f$  a handle connected with the plug by a shank  $g$ , upon which the plug is secured by a screw-thread. The plug is shown as a ball,  
65 which may be made of brass, india-rubber, or any other suitable material, and is fitted to the shank by a screw-thread, the shank projecting upon one side of the handle and the handle opposite to the shank being provided  
70 with an abutment  $h$ , adapted to engage the seat  $d'$  within the arch  $d$ .

The abutment shown in Figs. 1, 2, and 3 consists in a curved rib slightly eccentric to the center of the plug  $e$ .  
75

The device thus constructed is applied, as shown in dotted lines in Fig. 1, by placing the ball or plug upon the aperture  $c'$  and crowding the abutment against the seat  $d'$ , the movement of the handle downward into the  
80 position shown in full lines operating by the eccentricity of the abutment to jam the plug firmly against the seat. The plug has a taper point  $e'$  to guide it into the aperture  $c'$ . The edge of the rib which forms the abut-  
85 ment is shown with a series of small steps or teeth  $h^2$ , adapted to slip in succession over the seat  $d'$  and to lock therewith when the plug is crowded to the utmost degree in the aperture. The screw-thread upon the shank  $g$   
90 furnishes the means of adjusting the plug to and from the abutment, and the attachment is thus adapted for use with sprinkler-heads which may vary in dimensions.

The construction shown in Fig. 4 differs  
95 from that shown in Fig. 1 in having the abutment formed at the end of the arm  $h'$ , which is pivoted to the handle  $f$  adjacent to the shank  $g$ , thus forming with the shank a toggle which operates when the plug is placed  
100 upon the valve-aperture and the handle pressed downward to crowd the plug forcibly

into the aperture, as desired. To hold the arm *h'* in a convenient position for inserting the plug and the abutment within the sprinkler-head, a spring *i* is provided to bend the arm, and a stop *j* is also provided to arrest the movement of the handle by contact with the arm *h'* when the toggle is straightened.

The attachment above described forms a new article of manufacture which is adapted for use with many styles of sprinkler-heads and is exceedingly useful in promptly arresting the flow of water from such sprinkler-heads when the valve is accidentally displaced.

It is obvious that a great variety of mechanical means may be used to engage the arch *d* and force the plug into the valve-aperture *c'*, as any agency would be effective which thrusts the plug toward the valve-aperture, and is provided with a handle or support for applying the same. I do not, therefore, limit my invention to any particular construction for such means.

What I have termed the "abutment" of my device may be formed to press outwardly against any part of the arch *d*, so as to thrust the plug into the aperture *c'*, and it is not, therefore, essential that the abutment should press directly upon the seat *d'*.

Having thus set forth the nature of my invention, what I claim herein is—

1. As a new article of manufacture, a device for plugging sprinkler-heads, consisting in a handle having a plug attached to one side of the same and an abutment attached to the opposite side of the handle, substantially as set forth.

2. As a new article of manufacture, a device for plugging sprinkler-heads, consisting in a handle having a plug attached adjustably to one side of the same and an abutment attached to the opposite side of the handle, substantially as set forth.

3. The attachment for plugging sprinkler-heads, consisting in the handle *f*, the screw-shank *g*, the plug *e*, screwed thereon, and the eccentric abutment *h*, provided with the series of steps *h'*, arranged substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE E. WRIGHT.

Witnesses:

DENNIS HOULIHAN,  
HENRY J. MILLER.