

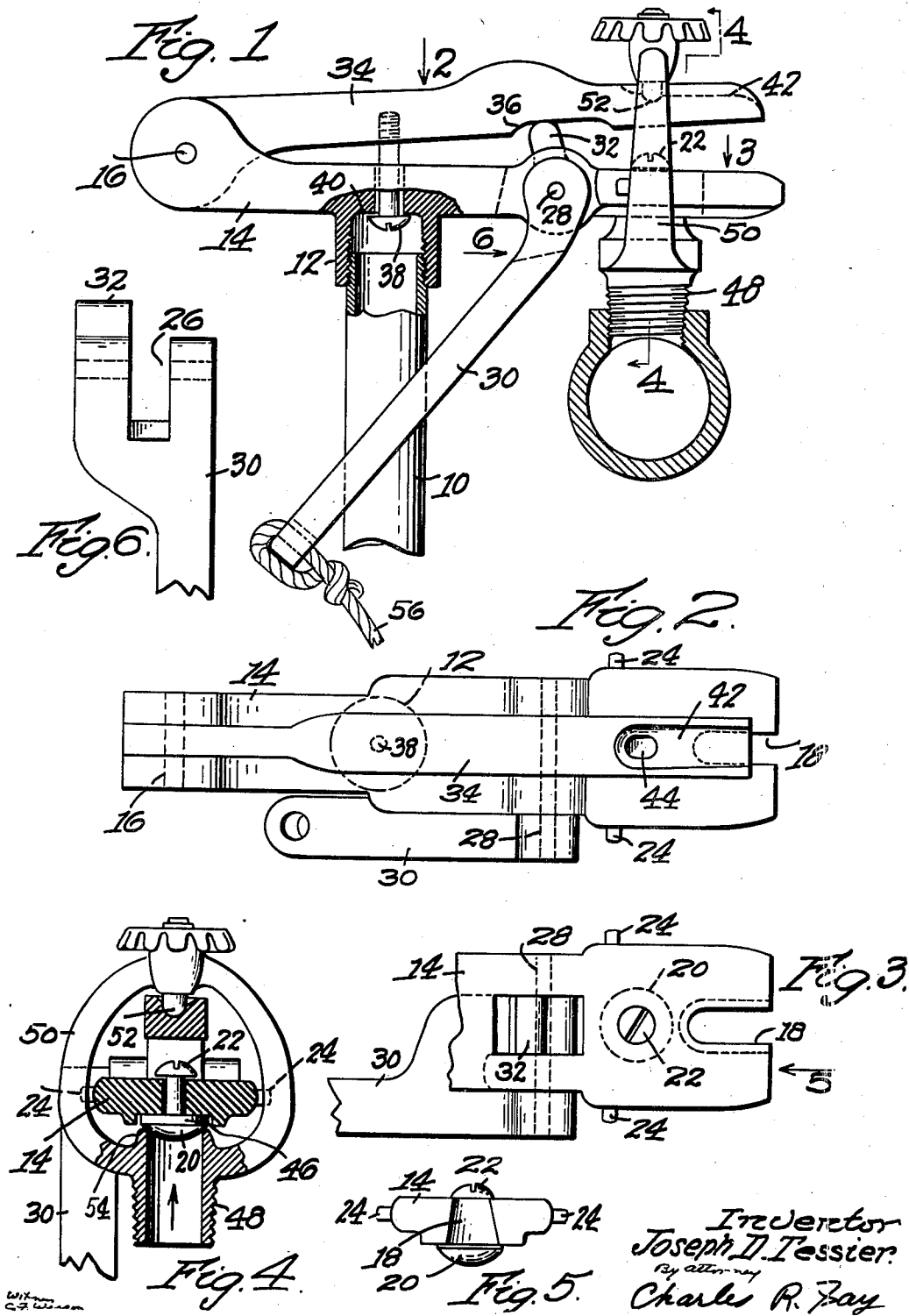
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SPRINKLER HEAD SHUTOFF DEVICE

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SPRINKLER HEAD SHUTOFF DEVICE

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7 Claims. (Cl. 169—1)

The objects of this invention include the provision of a means to shut off an accidentally opened sprinkler head, and comprises a pair of pivoted arms on one of which is located a curved element to fit a water vent and the other arm is provided with a locating lug for engagement with the sprinkler head, there being a cam or other means to force the arms apart to seat the curved element on the water spout in the position determined by the locating lug.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawing, in which

Fig. 1 is a side elevation of the device, with parts in section;

Fig. 2 is a plan view of the device looking in the direction of arrow 2 in Fig. 1;

Fig. 3 is a plan view of the forward end of arm 14, looking in the direction of arrow 3 in Fig. 1;

Fig. 4 is a sectional view on line 4—4 of Fig. 1;

Fig. 5 is an end view of the forward end of arm 14, looking in the direction of arrow 5 in Fig. 3; and

Fig. 6 is a fragmentary view of the cam end of the operating lever.

In the drawing, the numeral 10 indicates an elongated handle upon which the shut-off implement is mounted, as by screw threads or other means, to a boss 12 on the underside of the arm 14. This arm is provided with a pivot pin 16 at one end and an undercut notch 18 at the other end, there being a button or like element 20 having a rounded surface and being loosely mounted, as by a screw 22 just behind the notch 18. Also, there is a stop lug 24 positioned on each outside edge of the arm 14 just back of the button; and rearward of the stops, and passing through an aperture 26, is a pivot pin 28 for mounting an offset handle 30 having a cam element 32 rigid therewith.

The other arm 34 is mounted to pivot on the pin 16 and is urged away from the arm 14 by the cam element 32 working in the curved notch 36 on the underside of arm 34. Thus, as the handle 30 is pivoted away from the pin 16, the element 32 is forced towards the pin, in effect lifting the arm 34. The pivoted motion of arm 34 is limited by the headed screw 38 abutting the surface 40 in arm 14. The forward end of arm 34, on its upper surface, is provided with a groove 42 and a sunken area 44 at the inner end of the groove.

The button 20 may be provided with a washer 46 to make it project outwardly more than normal to increase the tension of the parts.

When the conventional sprinkler head 48 opens to emit water, it may be easily shut off without the use of valves, or having to go to the main valve, merely by raising the implement by its handle 10, inserting the forward ends of the arms 14 and 34 through the ring-like support 50, and the groove 42 acts as a guide for the usual pin 52 which easily finds a seat in the depression 44, opposite the button 20, which is then in position directly over the spout 54. Upon pulling down on cord 56 the upper arm 34 is forced firmly against the pin 52 and the button 20 is forced down on the spout and closes it. The notch 18 allows the water stream to pass through the arm 14, thus obviating any deflection thereof, and said stream also acts as a guide, tending to center the implement due to the undercut. The stops 24 prevent the implement from going too far through the support 50, and the screw 38 prevents the upper arm 34 from flying back under influence of the water. If the pivotal movement of the arms is not sufficient to close the sprinkler, the washer 46 may be inserted to increase the tension and overcome this difficulty.

Thus, it is seen that this invention provides a simple and economical tool to shut off an open sprinkler, and the tool is practically automatically guided to correct position whereupon a pull on the cord will shut off the flow of water.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. An apparatus of the class described, a pair of pivoted arms, means to urge said arms apart comprising a lever on one arm and mounting a cam for engagement with the other arm, means limiting said movement, and means on one arm to engage and close a vent.

2. An apparatus of the class described, a pair of pivoted arms, a rounded button or the like on the outer surface of one arm, a guiding groove on the outer surface of the other arm, and means to urge said arms apart, comprising a lever pivoted to one arm and mounting a cam element adapted to engage the other arm for gradual divergence of said arms.

3. In an apparatus of the class described, a pair of pivoted arms, a rounded button loosely mounted on the outer surface of one arm adjacent the free end thereof, a guiding groove ending in a depression on the outer surface of the free end of the other arm, means to urge said arms apart, and means to limit this movement, said urging means comprising an elongated lever

pivoted to one arm and mounting a short cam adjacent the lever pivot to bear on the other arm.

4. In an apparatus of the class described, a pair of pivoted arms, a rounded button loosely
5 mounted on the outer surface of one arm adjacent the free end thereof, a guiding groove ending in a depression on the outer surface of the free end of the other arm, means to urge said arms apart, and means to limit this movement,
10 said means to urge said arms apart comprising a pivoted lever mounted on one arm and having a projection bearing against the other arm.

5. In an apparatus of the class described, a pair of arms pivoted together at one end, means
15 intermediate the ends of the arms to urge them apart, means to limit this movement, a loosely mounted rounded element on the outside surface of one arm adjacent its free end, an undercut slot extending from said element to the free end
20 of said arm, a groove extending from the free end of the other arm on its outer surface and ending in a depression, stop lugs on one arm on its outer edges but adjacent the rounded element longitudinally of the arm, and a handle attached
25 to one arm.

6. In an apparatus of the class described, a pair of arms pivoted together, a lever pivoted at its end intermediate the length of one arm, a projection on the lever and extending beyond the lever pivot so as to engage the other arm with
5 increasing force as the lever is moved through an arc, and a water vent stopping means on one arm, the other arm being constructed and arranged to engage an object.

7. In an apparatus of the class described, a
10 tool having a pair of movable elements, means to spread said elements apart, said means including a movable cam on one element and a surface shaped to cooperate with said cam on the other
15 element, said cam being adapted to engage and bear against said surface on said other element, said cam being constructed and arranged to engage said surface, with increasing force, as the
20 cam is moved in one direction, whereby said elements may be locked in spread condition by the friction between the cam and said surface.

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