

No. 649,564.

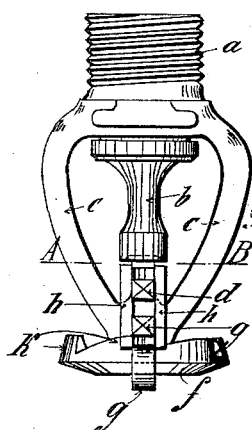
**Patented May 15, 1900.**

C. J. ZAPPERT.  
FIRE EXTINGUISHER.

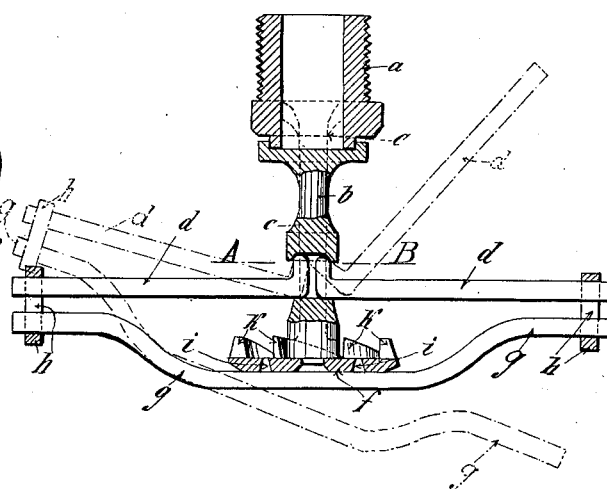
(Application filed Oct. 11, 1899.)

(No Model.)

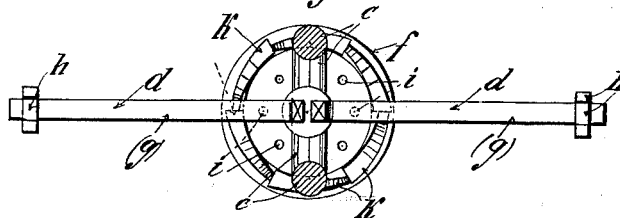
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



*Witnesses;*

Witnesses;  
 [Signature]  
 Victor Prokop

*Inventor:*

Charles James Zappert.

# UNITED STATES PATENT OFFICE.

CHARLES JAMES ZAPPERT, OF VIENNA, AUSTRIA-HUNGARY.

## FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 649,564, dated May 15, 1900.

Application filed October 11, 1899. Serial No. 733,317. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES JAMES ZAPPERT, a citizen of the United States of America, residing at Vienna, in the Province of Nvder 5 Österreich, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Automatic Fire-Extinguishers, (Sprinklers;) and I hereby declare the following to be a full, clear, and exact description 10 of the same.

The purpose of this invention is to construct a fire-extinguisher (sprinkler) in such a manner as to insure a double assurance of its prompt action when needed. This is accomplished by two levers, of which the ends nearest the fulcrum (the weight ends) press 15 against the valve, while the ends farthest from the fulcrum (the power ends) are connected with a bar placed opposite to them by two easily-fusible links in such a manner that the sprinkler will open immediately upon the fusing of either one of the links. By this a double factor of safety is secured, as in case 20 of one of the links failing to break it is hardly probable that the other would fail coincidentally.

In the accompanying drawings, Figure 1 shows a longitudinal section of the sprinkler; Fig. 2, an elevation of same, and Fig. 3 the 30 plan of a cross-section through the plane A B of Fig. 1.

As shown, the two levers *d d* rest between the valve-cap *b* and the bridge *e* in a position parallel to the bar *g*, which is laid on the distributor *f*. The bends of the levers *d d* act 35 as fulcrums, resting on a boss at the point of the bridge *c c*. The weight ends rest against the slightly-concave end of the valve-cap *b*, while the power ends are fastened to the bar *g* by means of fusible links. Both bar and levers are made from strong but somewhat resilient material. As long as the links *h h* remain intact the levers *d d* remain firmly 40 braced between the bridge *c c* and the valve-

cap *b*, thereby preventing the escape of the 45 extinguishing fluid; but as soon as an abnormal rise of temperature causes the fusing of only one of the links *h h* the levers *d d* are released and, yielding to their own resiliency and to the pressure exerted by the fluid on 50 the valve-cap *b*, instantly assume the position indicated by the dotted line in Fig. 1 and fall to the ground. The valve-cap *b*, being released, allows the escape of the extinguishing fluid, which, through the teeth *k* and the 55 holes *i* of the distributor *f*, is spread over a considerable area.

It is easily conceivable that the bar *g* could be fastened to the distributor *f*, so as to be free to pivot, or to prevent the possibility of 60 slipping it could be placed in a groove. Likewise can the levers and the links be secured from slipping by placing them in grooves, and, in fact, the form of the sprinkler or its parts could be changed considerably without affecting the main principle of the invention, 65 which is the placing of two easily-fusible links at exposed parts in such a manner that the fusing of either one of them will cause the sprinkler to open and fulfil its function. 70

Having now particularly described the nature of my invention, what I claim is—

An automatic fire-extinguisher (sprinkler) in which the valve is kept pressed against the valve-seat by the combination of two levers 75 with a bar placed parallel to them across the distributor and two easily-fusible links connecting the ends of the levers and the parallel bar; both bar and levers being made from strong but somewhat resilient material; substantially as described. 80

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES JAMES ZAPPERT.

Witnesses:

ALVESTO S. HOGUE,  
AUGUST FUGGER.