

(No Model.)

2 Sheets—Sheet 1.

E. F. STECK.

AUTOMATIC SPRINKLER FOR FIRE EXTINGUISHING SYSTEMS.

No. 585,128.

Patented June 22, 1897.

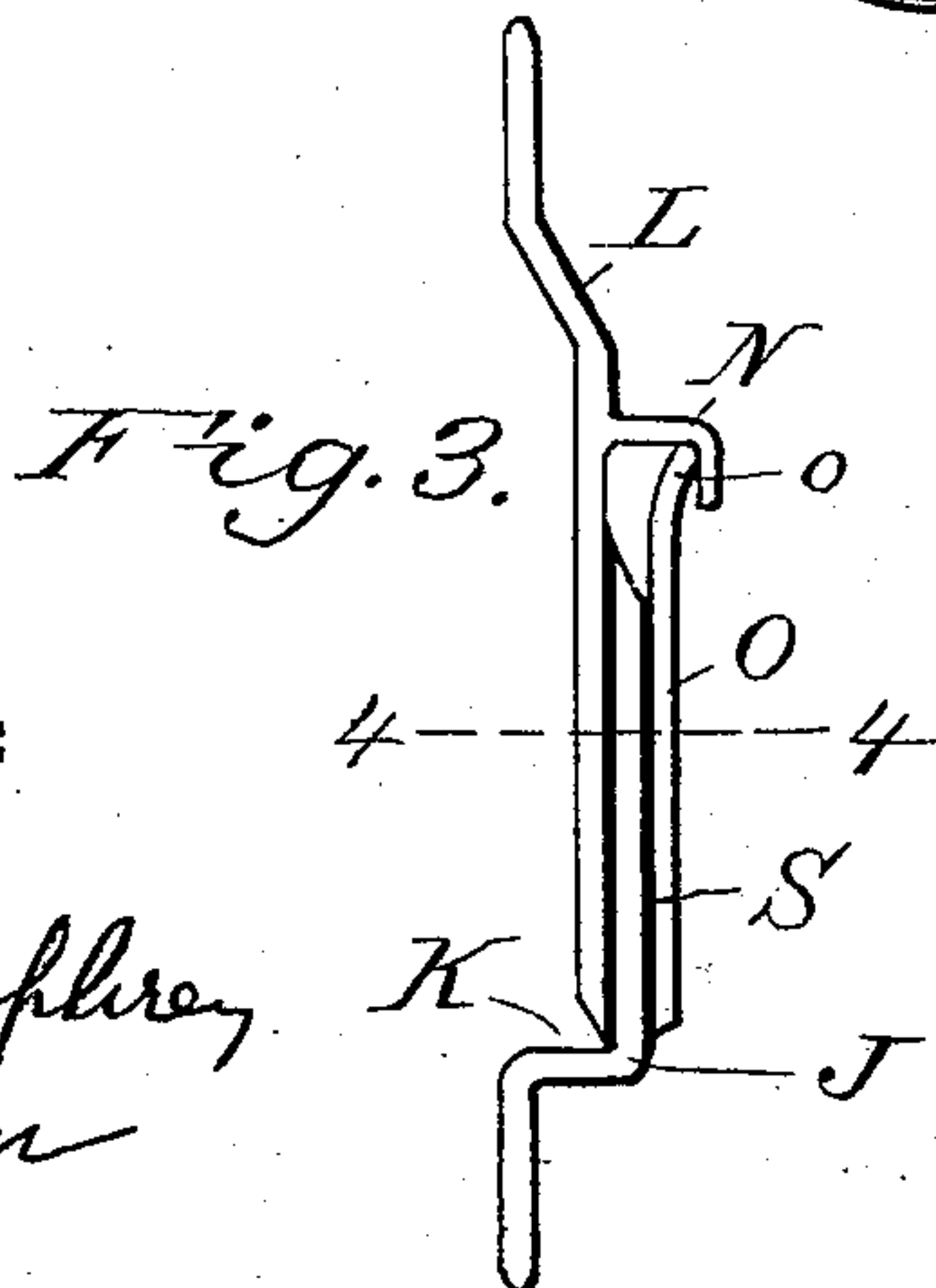
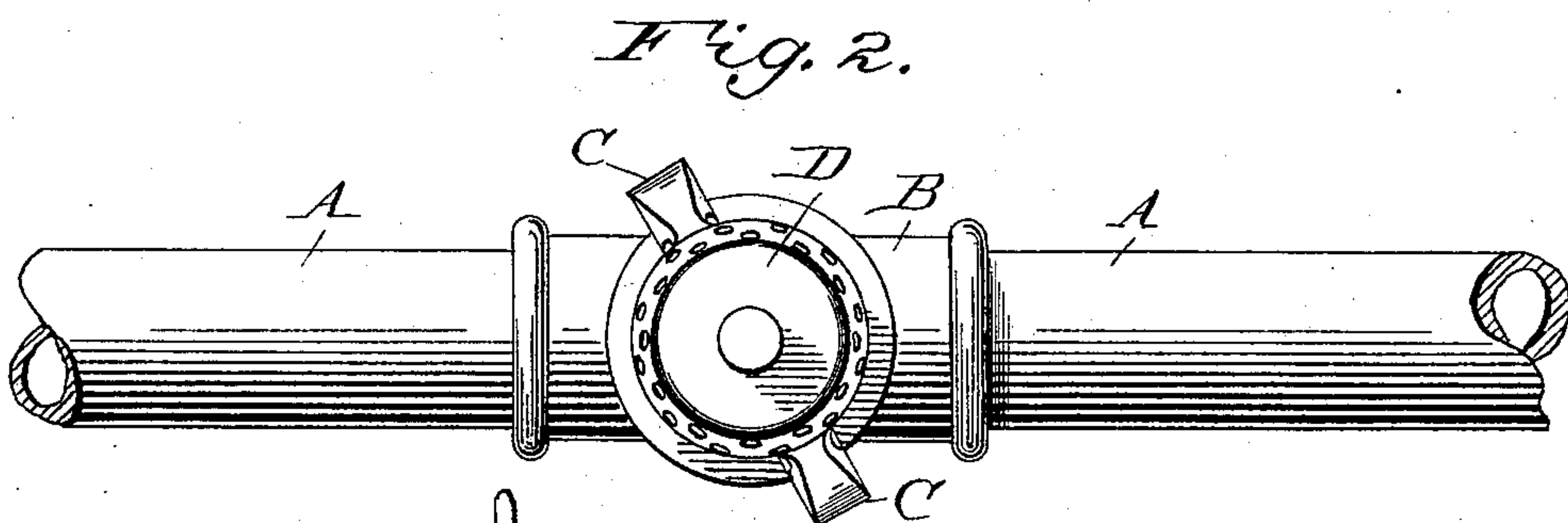
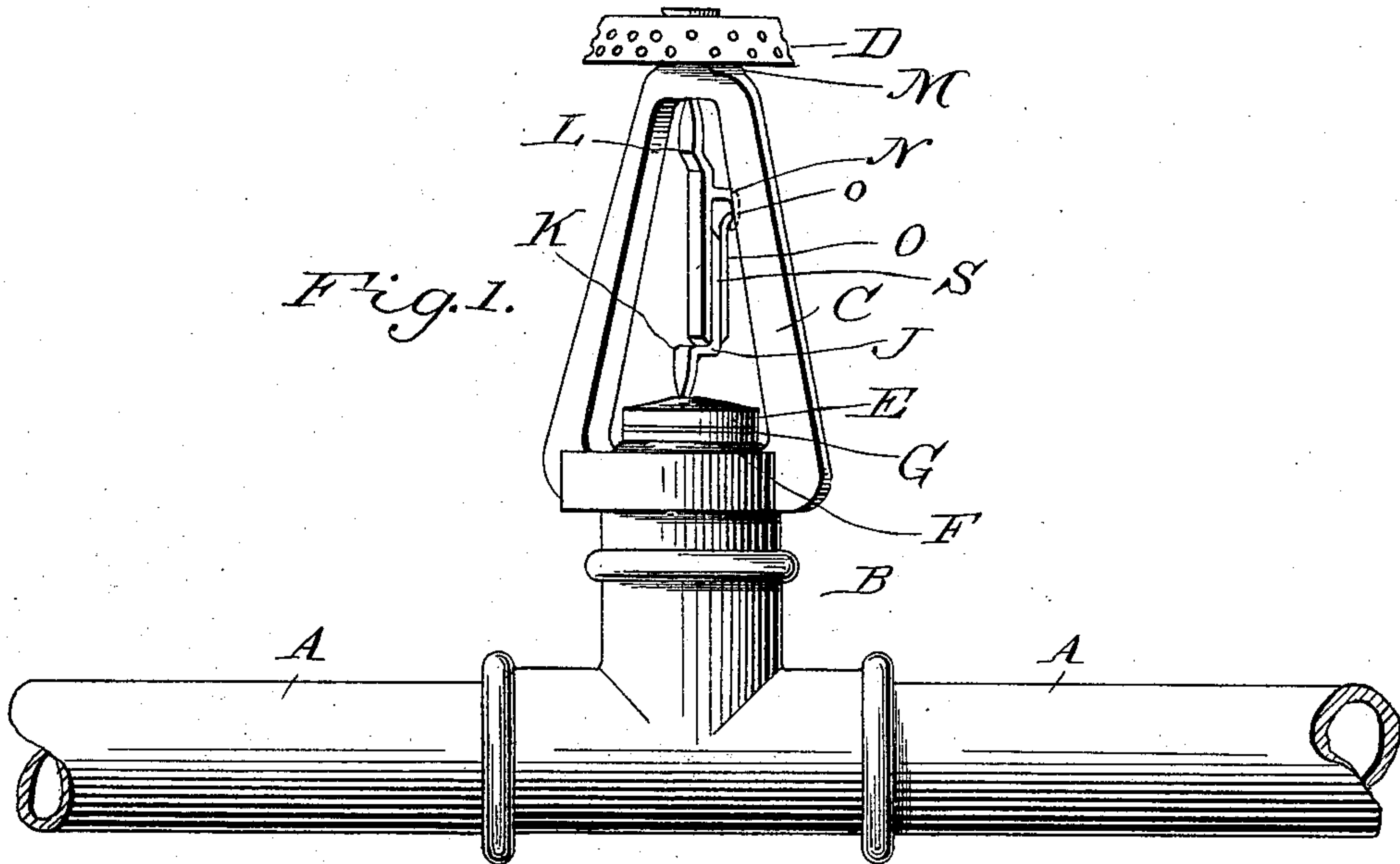
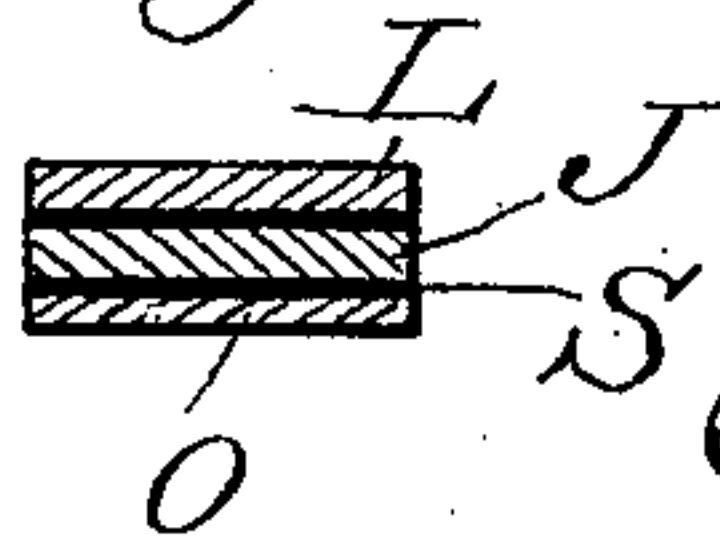


Fig. 4.



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(No Model.)

2 Sheets—Sheet 2.

E. F. STECK.

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Patented June 22, 1897.

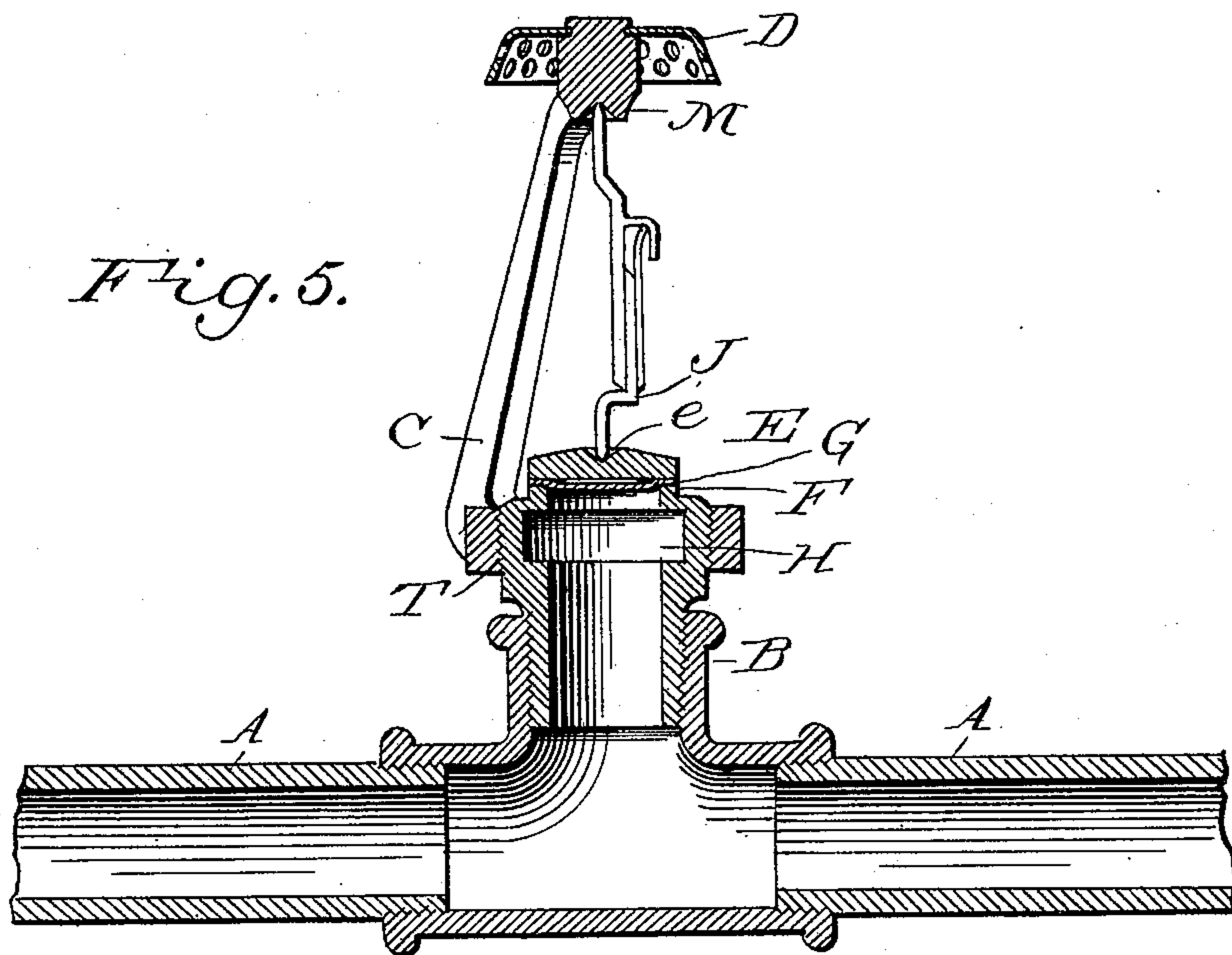


Fig. 6.

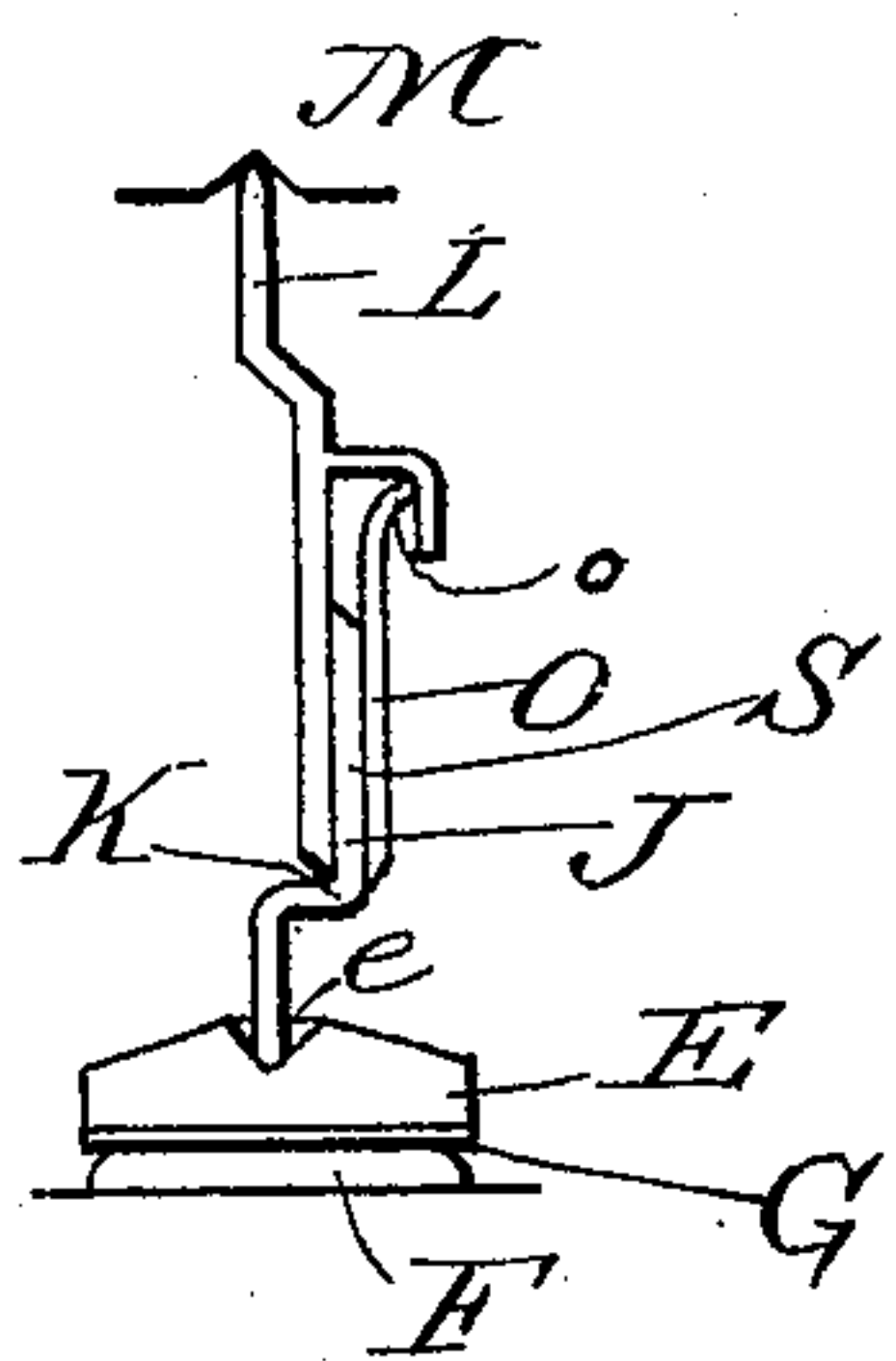


Fig. 7.

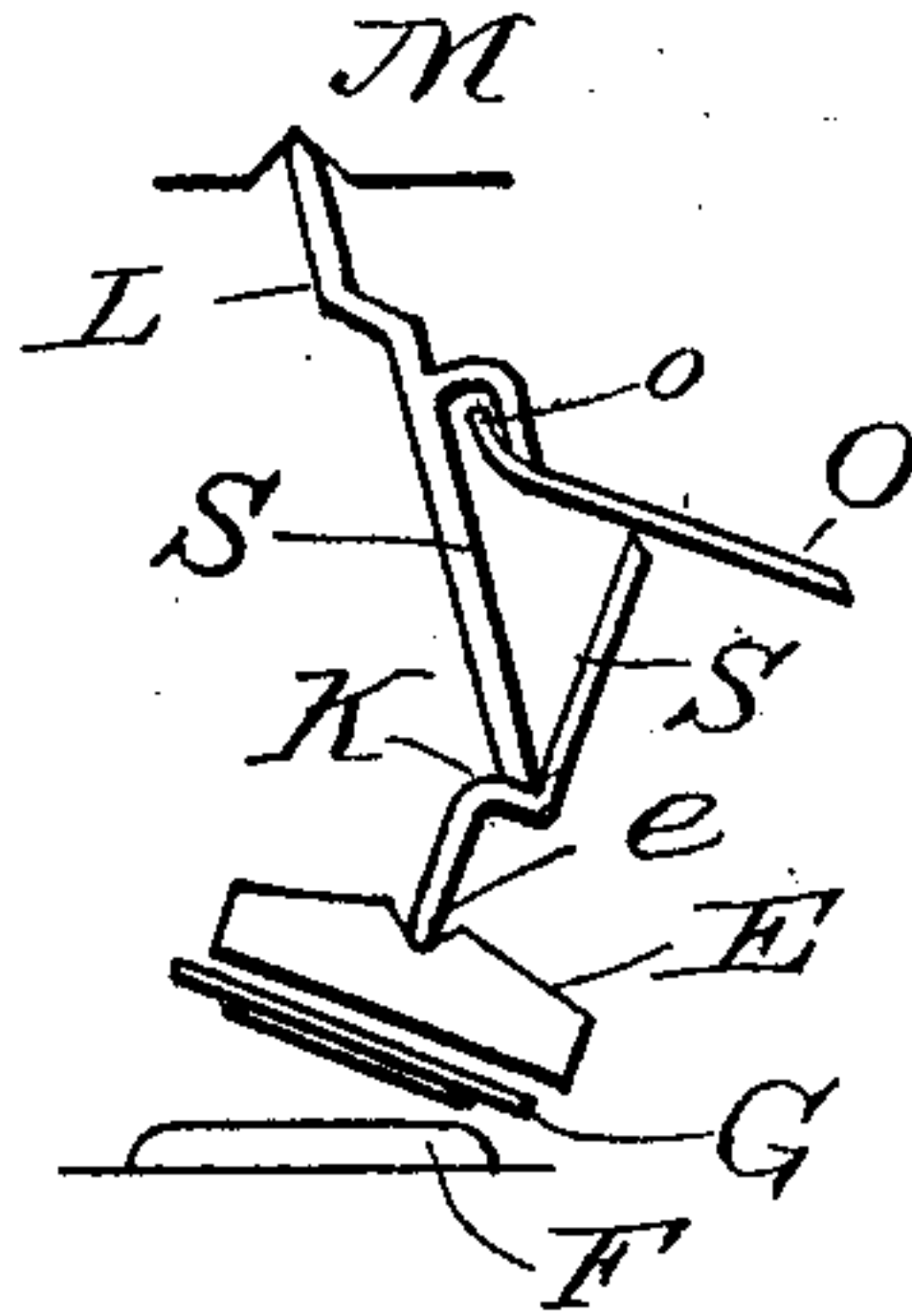
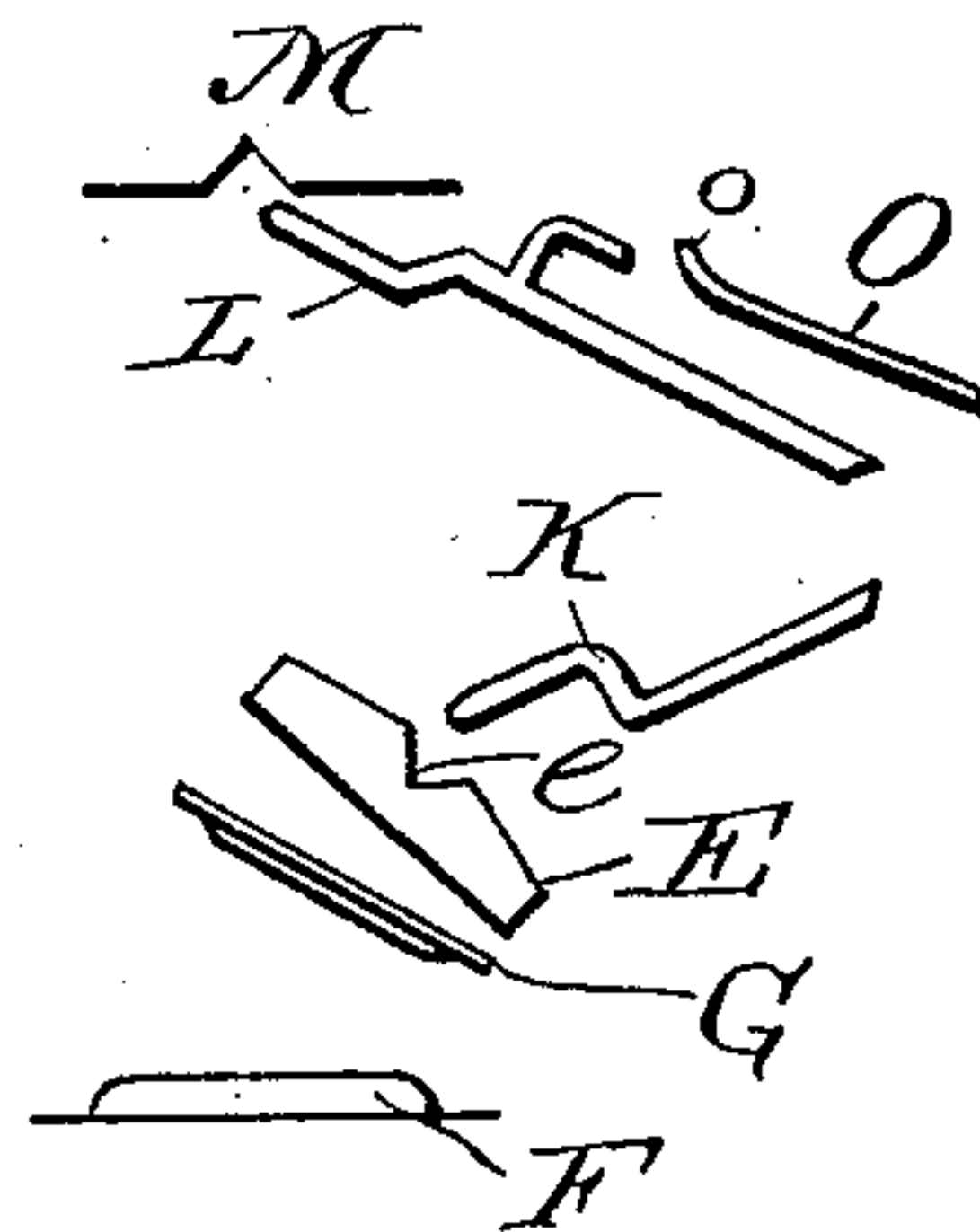


Fig. 8.



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UNITED STATES PATENT OFFICE.

ERNST F. STECK, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE FIRE EXTINGUISHER MANUFACTURING COMPANY, OF SAME PLACE AND NEW YORK, N. Y.

AUTOMATIC SPRINKLER FOR FIRE-EXTINGUISHING SYSTEMS.

SPECIFICATION forming part of Letters Patent No. 585,128, dated June 22, 1897.

Application filed October 14, 1896. Serial No. 608,809. (No model.)

To all whom it may concern:

Be it known that I, ERNST F. STECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Sprinklers for Fire-Extinguishing Systems, of which the following is a specification.

In a former patent, No. 571,581, dated November 17, 1896, I show, describe, and claim fusible sprinkler-heads adapted to separate speedily under proper conditions, the object being to militate against the possibility of "drag" to thus render the sprinkler more valuable for this particular purpose.

My present invention is an improvement upon that structure, the especial object of the present form being to strengthen the parts so as to at all times resist the internal pressure of the fluid until the fuse has melted and its operation become necessary.

I will proceed to describe my new form of sprinkler-head in connection with the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side elevation of my new form. Fig. 2 is a top view of the same. Fig. 3 is a detail perspective view of the locking mechanism. Fig. 4 is a cross-section of the locking parts on line 4 4, Fig. 3. Fig. 5 is a vertical section of the sprinkler-head, showing the locking mechanism in relation. Figs. 6, 7, and 8 are detail views of the locking mechanism in various positions.

In the drawings, A represents the section of the fire-extinguishing fluid-pipe from which proceeds the sprinkler-head pipe B at right angles thereto. From the upper end of the branch pipe B extends the supporting-yoke C, carrying at its further extremity distributing cap or spray device D. The valve is shown at E and the valve-seat at F, and at G, I provide a gold-plated disk between the valve and its seat for the purpose of mitigating corrosion as much as possible.

At H is an air pocket or chamber.

The valve E is rounded on its upper surface and is provided with a slight depression e, which constitutes a seat for the lower end of the locking mechanism, the latter being con-

structed as follows: This locking mechanism consists of the bent lever J, whose lowest point extends into the cut-away portion or seat e of the valve E. The lever J is provided with a shoulder or seat K, and upon this seat rests the post L. The post L extends upwardly to and seats in the cross-bar M of the supporting-yoke C. The post L is provided at N with a bent arm or shoulder, and at O, I show a locking-plate having at its upper end an outwardly-turned lip o, which comes against the inner side of the shoulder N. The plate lies outside of the bent lever J, immediately in contact therewith, and the protruding point o extends out sufficiently far to touch the shoulder N. Between the plate O and the bent lever J, I place the solder S.

The operation of the apparatus is as follows: When the heat becomes sufficient to melt the fuse S, the parts will assume the position shown in Fig. 7. The shoulder N will retain its hold upon the point o of the plate O and will turn the plate over the top of the bent lever J, and the lower part of the post L, resting on the seat K of the lever J, will thrust the upper end of said post outwardly. Fig. 8 shows the final separation of the parts. The lock is adjusted and held in place by reason of the screw T.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an automatic sprinkler-head, the combination with the valve and a support on the sprinkler-head, of a locking mechanism interposed between said valve and support, and consisting of a lever having a shoulder, a post bearing against but not interlocking with said shoulder on the lever and having a bent arm or shoulder projecting from it at a point beyond the end of the lever, and a plate soldered to the lever on the side away from the post and engaging with the shoulder on the post, the said plate, lever and post being parallel to one another, and adapted to swing outwardly and in the same direction when released.

2. In an automatic fire-extinguishing sprinkler-head, the combination of the valve

held from separation under fluid-pressure by
means of a lock, with said lock, the latter
consisting of a bent lever J, a post L provided
with the bent arm or shoulder N and a plate
5 O soldered to the lever J on the side away
from the post and having an outturned point
o in contact with the inner part of the shoul-

der N, the said plate, lever and post lying
parallel to one another.

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Witnesses:

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