

(No Model.)

F. E. CATON & F. B. WARRING.
SPRINKLER.

No. 504,965.

Patented Sept. 12, 1893.

Fig. 1.

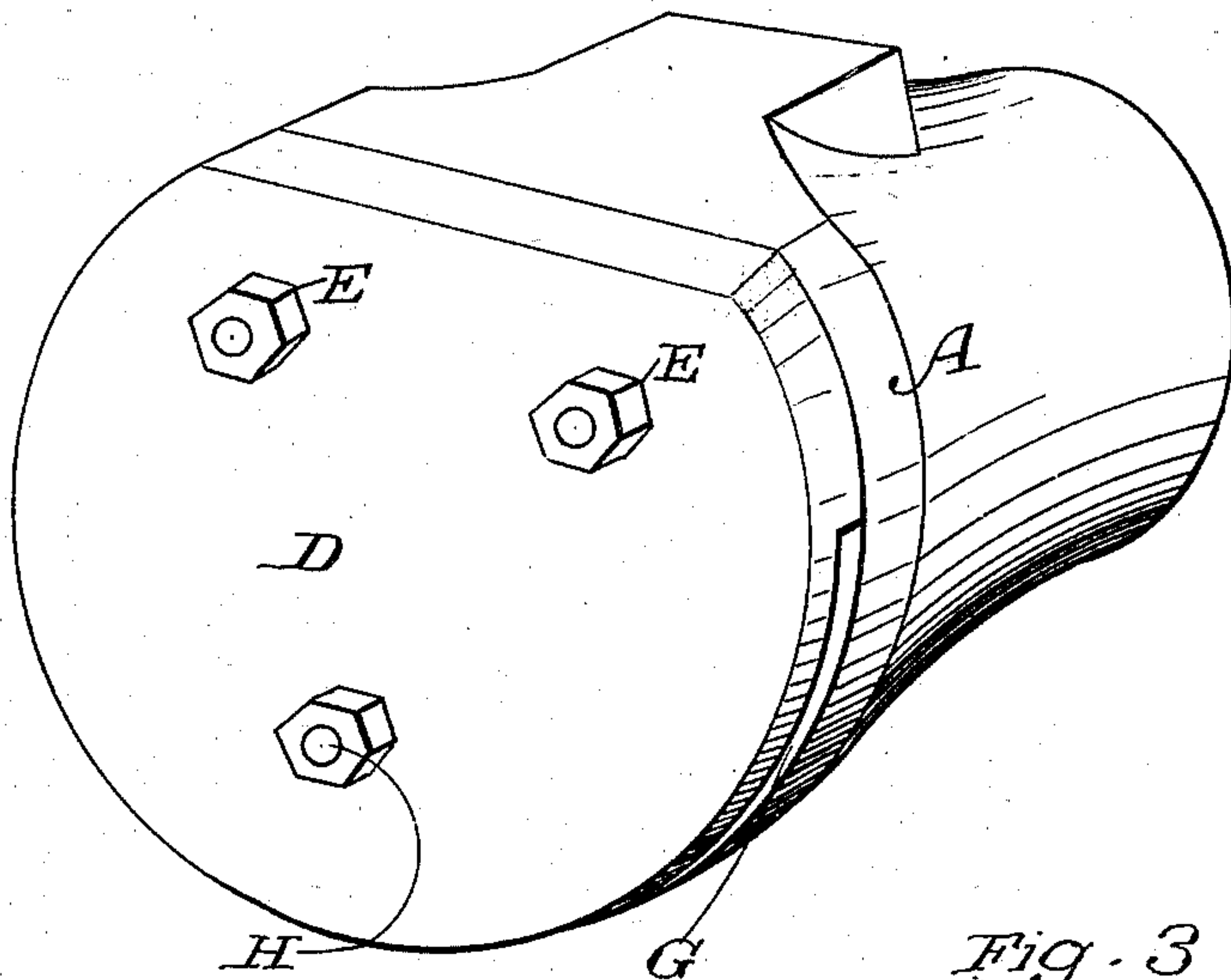


Fig. 2.

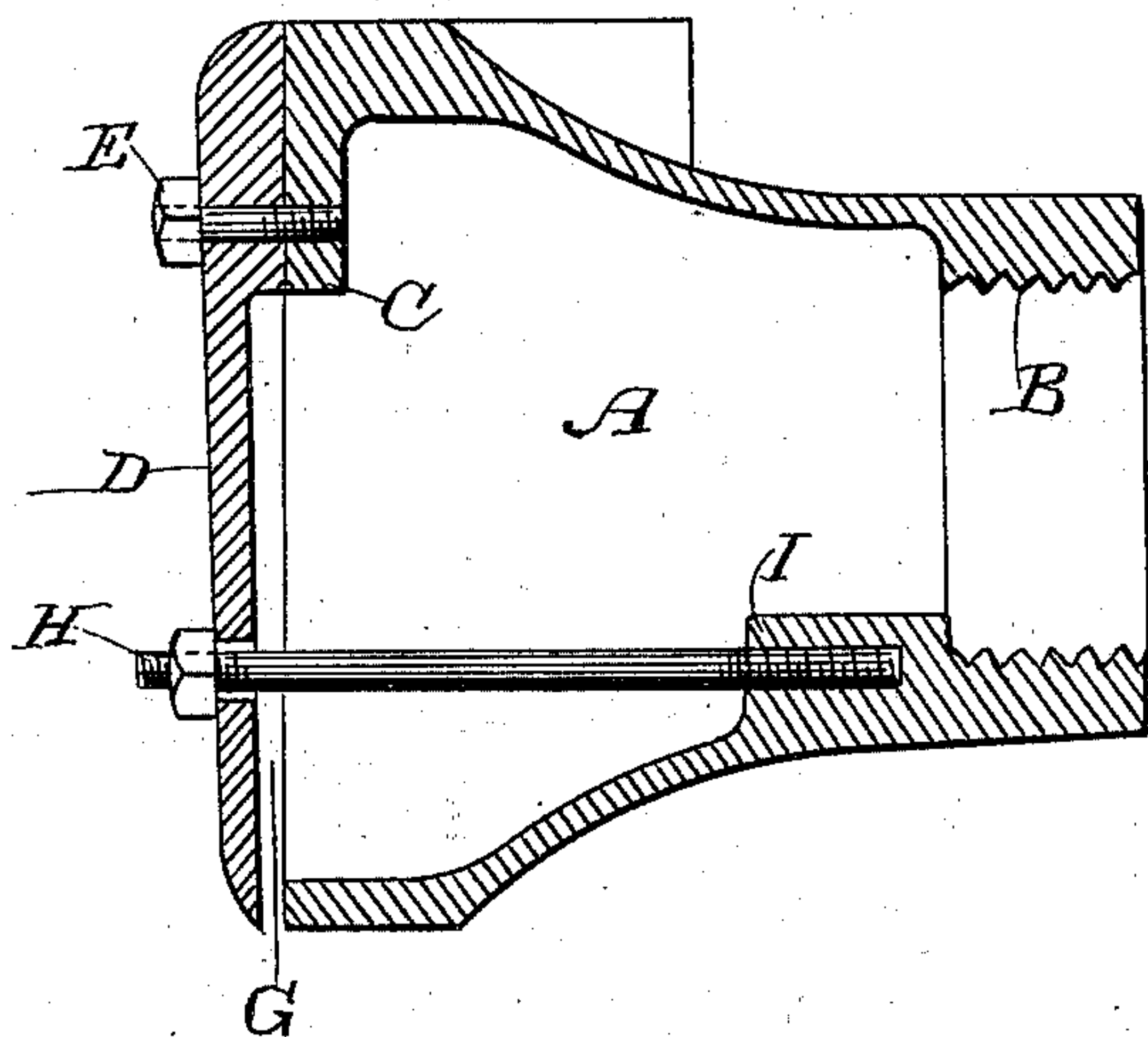
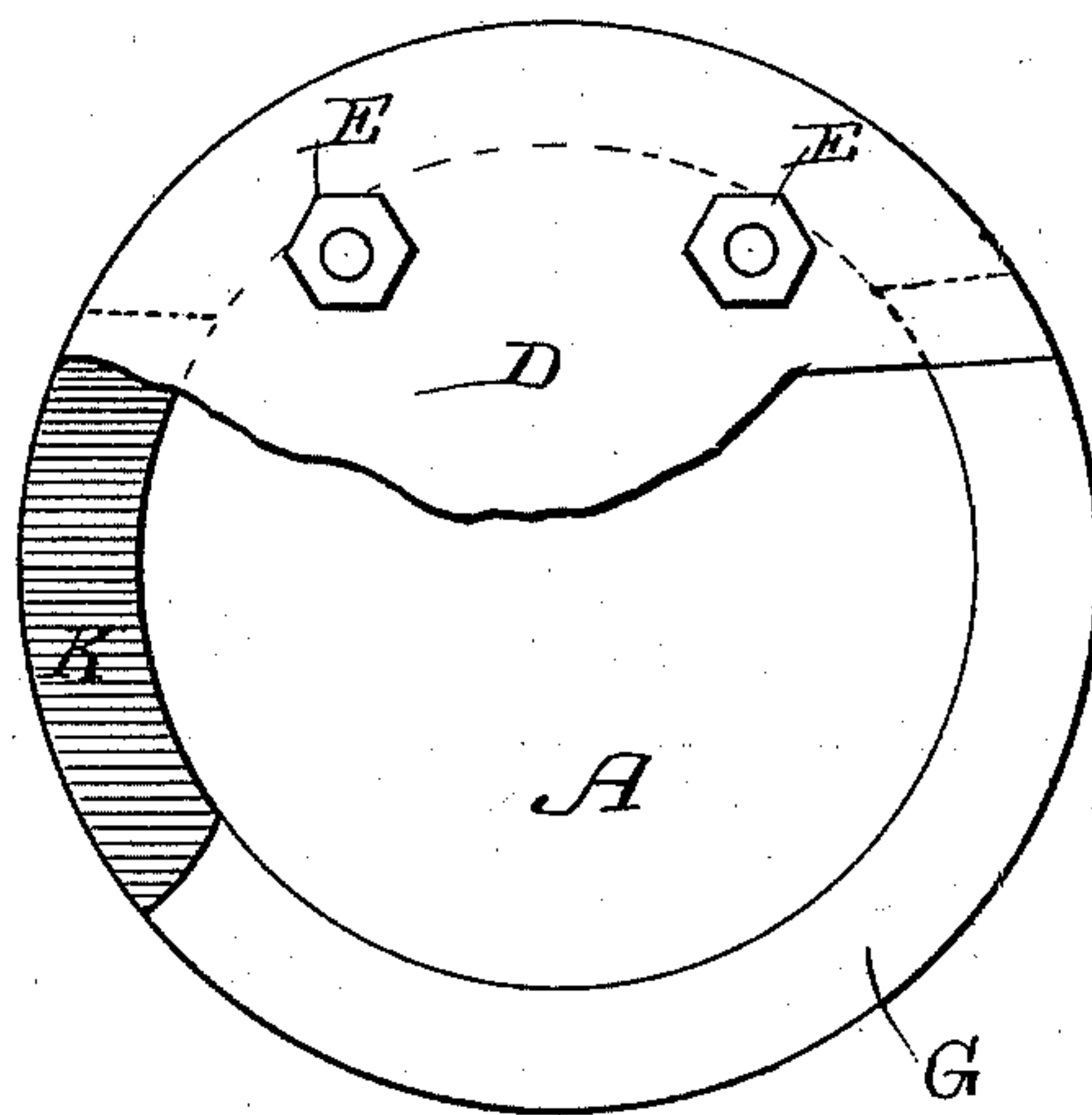


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRED E. CATON AND FRANKLIN B. WARRING, OF SAN JOSÉ, CALIFORNIA.

SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 504,965, dated September 12, 1893.

Application filed June 1, 1893. Serial No. 476,269. (No model.)

To all whom it may concern:

Be it known that we, FRED E. CATON and FRANKLIN B. WARRING, citizens of the United States, residing at San José, Santa Clara county, State of California, have invented an Improvement in Sprinklers; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to certain improvements in sprinkling devices, and is applicable either to a large sprinkler for street purposes, or to spray nozzles for the purpose of sprinkling trees.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a perspective exterior view of our device. Fig. 2 is a longitudinal section through the axis. Fig. 3 is an end view with the plate D broken away showing the plate K.

A is a nozzle which is made of any suitable or desired shape. In the present case we have shown it formed to be attached to the supply pipe by means of screw-threads at B. The outer end of the nozzle is made of larger diameter, the sides diverging for the purpose, and the end has upon one side an inwardly turned flange C.

D is a plate or disk which forms a cover for the end of the nozzle. This disk is secured to the flange C by bolts E, and is made thicker around that portion through which the bolts pass, so that an open segmental channel is left around the remainder of the periphery, between the end of the nozzle and the inner face of the disk, for the escape of water. The same result may be obtained by introducing a segmental plate between the cover disk D and the rim of the end of the nozzle around that portion occupied by the flange C. The bolts E pass through the disk D, and thus the two parts are united together so as to leave an open channel G between the end of the nozzle A and the cover disk D around the remainder of the circumference, which, in the present case, is shown to be nearly two-thirds of the circumference. Water being admitted into the nozzle will fill it and be discharged in a sheet around this open periphery. For

the purpose of street sprinkling the nozzle is screwed upon the end of a horizontal projecting pipe so that its own axis is approximately horizontal, and the open slot is presented downwardly.

In order to regulate the discharge of water and deliver it from the sides of the slot in the same proportion as from the center which is directly downward, we have shown an adjusting bolt H which passes through a hole in the plate D near the outer edge of the opening G and extends down into a lug I in which it is screwed, the head of the bolt pressing upon the plate D. By screwing this bolt down, the free edge of the plate D is forced as near to the end of the nozzle A as is desired to reduce the opening at this point to any desired degree. The elasticity of the free edge of the disk, allows this movement of the disk D, and we are thus enabled to regulate the flow of water so as to provide the desired even discharge all around the periphery.

When two nozzles are employed and it is desired to throw the water outwardly from the center, a plate of elastic or other material K is inserted into the inner edge of the slot, extending as far around as desired, and is clamped in place when the disk is secured against the end of the nozzle by its bolts.

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

1. A sprinkling nozzle consisting of a head having an inwardly turned flange, a flat removable disk, said disk having a thickened section for a portion of the circumference bolts inserted through said thickened portion and the inwardly turned flange to secure the disk to the nozzle whereby an open slot is left around the remainder of the circumference between the disk and the end of the nozzle, substantially as herein described.

2. A sprinkler consisting of a nozzle having one end adapted to be secured to a supply pipe, a yielding elastic disk fitting over the end of the nozzle and bolted through the thickened portion at one side, so that an open channel is formed between the disk and the end of the nozzle around the remaining portion of the circumference, a bolt passing through

the unsupported edge of the disk having its inner end screw-threaded and fitting corresponding threads in the nozzle whereby the unsupported edge of the disk may be adjusted with relation to the end of the nozzle, substantially as herein described.

3. A sprinkler consisting of a nozzle having one end adapted to be secured to a supply pipe, a disk removably secured at one side and extending across the end of the nozzle at right angles with its longitudinal axis so as to form a segmental open slot around a por-

tion of its periphery, and an insertible segment fitting a portion of the circumference of the slot, and forming a guide to divert the discharge stream, substantially as herein described.

In witness whereof we have hereunto set our hands.

FRED E. CATON.

FRANKLIN B. WARRING.

Witnesses:

JNO. A. HICKS,

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