

(No Model.)

W. S. KISINGER.

WATER SPRINKLER.

No. 409,978.

Patented Aug. 27, 1889.

FIG. 1.

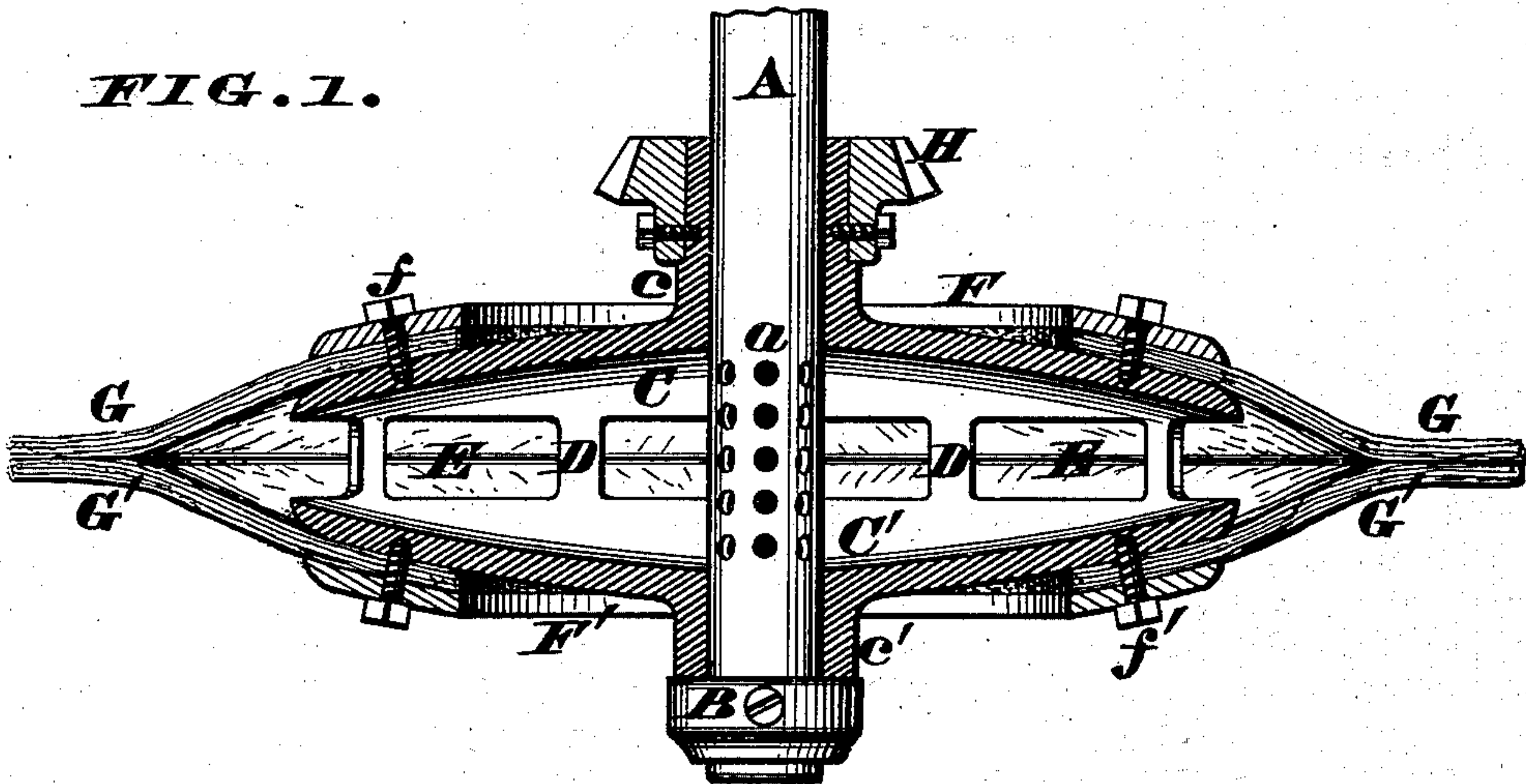
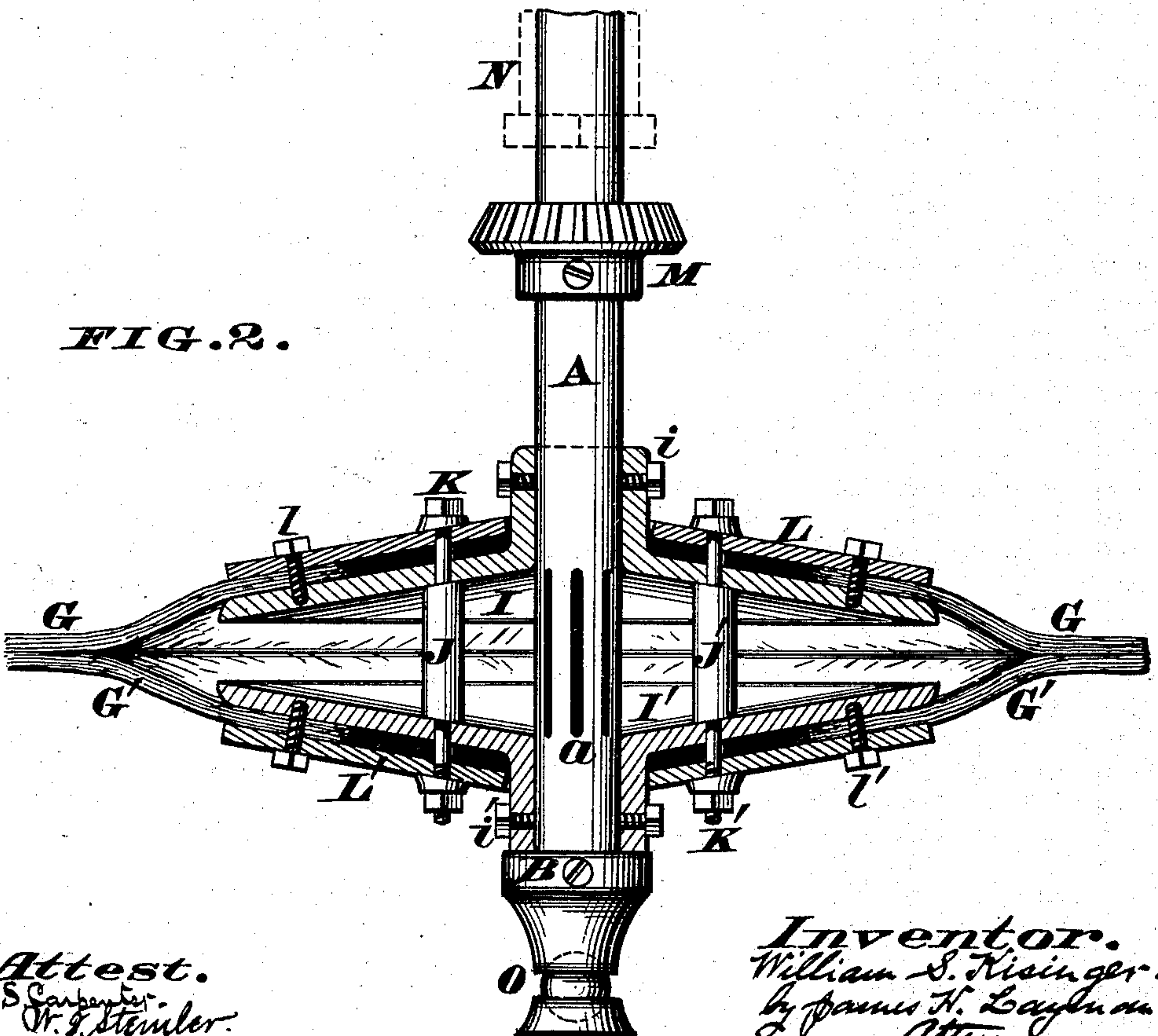


FIG. 2.



Attest.
S. S. Carpenter.
Chas. J. Steuler.

Inventor.
William S. Kisinger.
By James H. Layman.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM S. KISINGER, OF BELLEVUE, KENTUCKY, ASSIGNOR TO HENRY G. STIEBEL, OF CINCINNATI, OHIO.

WATER-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 409,978, dated August 27, 1889.

Application filed December 29, 1888. Serial No. 294,961. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. KISINGER, a citizen of the United States, residing at Bellevue, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Water-Sprinklers; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form a part of this specification.

My invention comprises a novel construction of sprinkler, through which water is ejected or distributed by the centrifugal velocity of the machine, which latter is driven by any suitable power. Said sprinkler consists, essentially, of a hollow head applied to a pipe or tube and receiving its supply of water from holes or slots in said tube, said head being provided with a marginal ventage through which the water escapes; but in order to prevent a too voluminous discharge said ventage is guarded with a brush or whisk of any suitable material. It is customary, however, to make this brush of splints, similar to those used for heavy brooms, which splints serve to break up the discharging-current and cause it to be delivered in fine jets or spray, thereby effecting a thorough and uniform sprinkling and without flooding the streets with water. The hollow head may be so arranged as to turn around the supply-pipe, or it may be attached to the latter and revolve therewith, as circumstances suggest. Furthermore, this hollow head may be a single casting with a pair of rings bolted thereto for the purpose of holding the brush in place; or said head may consist of two or more distinct parts suitably united together, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a vertical section of one form of my improved sprinkler adapted to revolve around the supply-pipe. Fig. 2 is a similar section of a modified form of the sprinkler secured to said pipe, so as to revolve therewith.

A represents a pipe or tube which communicates with a tank or other source of water-supply, said pipe having near its lower end a fixed collar B for the support of the hollow

head, previously referred to. As seen in Fig. 1, this head is a single casting consisting of a pair of crowning-disks C C', which are somewhat remote from each other in the center, but slope or curve toward each other as they approach the periphery of said head, where they are united by short integral ties D, a marginal slot or ventage E being thus afforded between these ties. The lower disk or plate C' has a short neck c' resting upon the collar B, while the upper disk C has a somewhat longer neck c, said necks serving as boxes or bearings wherewith the head is journaled to the pipe A, and is adapted to be turned around the same, which turning is effected by a gear-wheel or pulley H, secured to the upper neck c, said driving device H being operated by any suitable power—as, for instance, by one of the ground-wheels of a watering-cart or other vehicle.

F is a ring secured upon the disk C by bolts f and serving to clamp the portion G of the brush or whisk to said head, this brush being composed either of splints, bristles, wires, or any other flexible material or materials capable of being fitted up closely alongside of each other.

F' is another ring, which is fastened to the under side of head C' by bolts f' and serving to clamp the other portion G' of the brush in place. Owing to the curvature of the plates C C' these halves G G' of the brush merge into each other at a suitable distance from the ventage E, and thus obstruct or impede the discharge of water through said orifice. a are openings or slots in that portion of pipe A inclosed by the disks C C'.

When this sprinkler is applied to a watering-cart or other similar vehicle, the hollow head C C' is driven at a high velocity by suitable connections between the gear or pulley H and one of the ground-wheels of said cart, while the water from the tank or barrel flows down the pipe A, and passing through the apertures a fills said head. The centrifugal velocity of this head drives the water out forcibly at the ventage E; but as said ventage is obstructed by the splints or bristles G G' the fluid is not discharged in an unbroken sheet, but is thoroughly divided into numer-

ous fine jets or spray, which jets lay the dust without flooding the streets. The distance to which these jets are thrown will of course depend on the volume of water used, the velocity of the head, and the manner in which the splints G G' are applied to said head, all of which details of construction can be varied to suit circumstances.

In the modification of my invention seen in Fig. 2 the hollow head is composed of two separate disks I I', which are maintained a suitable distance apart by tubes J J', traversed by bolts K K', which bolts coact with other bolts l l' in fastening the caps L L' to said disks. These caps secure the splints G G' in place. Furthermore, in this illustration the disks are attached to the supply-pipe A by fastenings i i', and the driving device M is secured to said pipe, which latter should revolve within a stuffing-box, as indicated by the dotted lines N.

O is a ball-bearing supporting the lower end of said pipe.

This sprinkler acts in precisely the same manner as the device seen in Fig. 1, the brush G G' serving to dispense the water issuing from the ventage of the head and dividing the current into numerous fine jets or spray. Finally, although the sprinkler herein described has been referred to as an attachment for a

watering-cart, the invention is not limited to any special use, but may be employed for various purposes.

I claim as my invention—

1. The combination, in a water-sprinkler, of a perforated supply-pipe, a hollow head surrounding said pipe, a marginal ventage to said head, a brush applied to said ventage, and means for revolving said head, whereby its centrifugal velocity drives the water through said brush in the manner herein described.

2. The combination, in a water-sprinkler, of an axial supply-pipe A, a hollow head composed of a pair of disks I I', attached to said pipe and surrounding the perforated portion thereof, tubes J J', fitted between said disks, caps L L', secured to the exterior of the latter by ties K K', that traverse the tubes J J', brushes G G', applied to the marginal ventage of said hollow head, and means for revolving said sprinkler, all as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM S. KISINGER.

Witnesses:

JAMES H. LAYMAN,
H. G. STIEBEL.