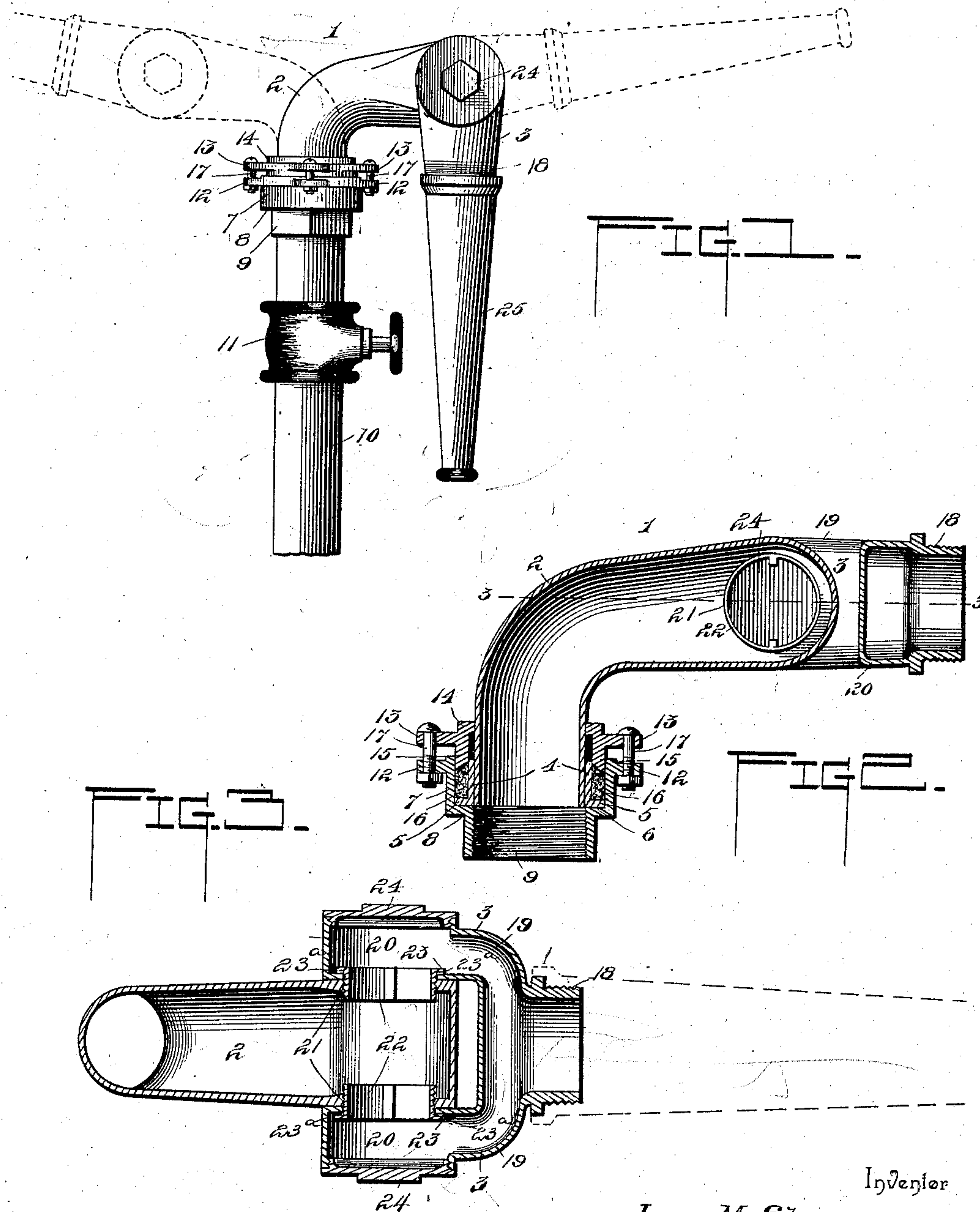


(No Model.)

J. M. SHERMAN.  
WATER NOZZLE.

No. 591,120.

Patented Oct. 5, 1897.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES M. SHERMAN, OF COLUMBIA, MISSOURI.

## WATER-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 591,120, dated October 5, 1897.

Application filed November 13, 1896. Serial No. 611,967. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. SHERMAN, a citizen of the United States, residing at Columbia, in the county of Boone and State of Missouri, have invented a new and useful Water-Nozzle, of which the following is a specification.

This invention relates to water-nozzles especially designed for use in the emergency of fire; and it has for its object to construct a nozzle of this character adapted to be mounted in a fixed position with relation to a stand-pipe or other source of water-supply, so as to be always ready for use, while at the same time so constructed as to permit of being adjusted so as to discharge a stream of water in any desired direction without interfering with the free passage of the water through the nozzle.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a side elevation of a water-nozzle constructed in accordance with this invention and shown in its applied position for use. Fig. 2 is a longitudinal sectional view of the nozzle. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2.

Referring to the accompanying drawings, the numeral 1 designates a water-nozzle, essentially comprising a swiveled pipe-section 2 and a bifurcated pivotal nozzle member 3, communicating with the pipe-section 2; and pivotally joined thereto in the manner to be presently described. The swiveled pipe-section 2 is bent intermediate of its ends to form an elbow, with the upper portion thereof disposed in an approximately horizontal plane, while the lower portion is disposed approximately in a vertical plane, and the lower end of the elbow-pipe section or member 2 of the nozzle has fitted fast thereon an exterior packing-collar 4, provided at its lower edge with an outturned flange 5, turning on the interior annular bearing-seat 6, formed within the bearing-cup 7 of the stationary or fixed coupling-head 8. The stationary or fixed coup-

ling-head 8 is provided at its lower side with an interiorly-threaded neck 9, fitted on one end of a stationary stand-pipe 10, leading to any point within a building where it is desired to locate the water or fire nozzle, and said pipe 10 is provided adjacent to its connection with the coupling-head 8 with a suitable cut-off or controlling valve 11, which is manipulated when it is desired to direct the water through the nozzle or to cut off the flow therefrom.

The bearing-cup 7, at the upper side of the head 8, is sufficiently large to loosely receive therein the lower end of the pipe-section 2 with its attached collar 4, and at its upper edge the cup 7 is provided with a plurality of offstanding bolt-ears 12, with which are adapted to be alined corresponding bolt-ears 13, projected laterally at intervals from the periphery of ring-gland 14, loosely encircling the pipe 2 above the collar 4, and provided with a depending beveled packing-flange 15, working into the space between the collar 4 and the sides of the cup 7 to provide for tightly compressing in this space the packing material 16, which serves to maintain a water-tight connection between the pipe-section 2 and the head 8, in which it is swiveled. The vertically-alined bolt-ears 12 and 13 are connected by the bolts 17, which may be adjusted readily to compress the packing 16, and removed when it is desired to repair the connection between the pipe-section 2 and the head 8.

The bifurcated pivotal nozzle member 3 of the nozzle-body essentially comprises an exteriorly-threaded coupling-neck 18 and a pair of oppositely-located tubular twin branches 19, merging into the neck 18 and provided therein with transverse openings 20, disposed in precise alinement with the threaded discharge-openings 21, formed in opposite sides of the elbow-pipe section 2, at the upper end thereof, which is disposed within the bifurcation of the member 3 between the branches 19 thereof. The oppositely-located side openings 21 of the pipe-section 2 are threaded to detachably receive therein the trunnion bushing-rings 22, exteriorly threaded to engage the threads of the openings 21 and flanged at their outer edges, as at 23, which flanges 23



bear against packing 23<sup>a</sup> and pivotally engage with the flanged inner sides of the openings 20 in the tubular branches 19, and the outer sides of said openings 20 are interiorly threaded to detachably receive therein the exteriorly-threaded closing-caps 24, which, when removed, provide access to the bushings 22 when the two members of the nozzle are being assembled or taken apart, as will be readily understood, and at this point it will be observed that the bushings 22 form trunnions for the member 3 to provide a pivotal connection between such member and the pipe-section 2, so that the member 3 may be swung upward or downward, according to the direction in which it is desired to point the delivery-spout 25, which is detachably fitted on the threaded coupling-neck 18 of the said member 3.

While the pivotal mounting of the member 3 permits of the swinging adjustment thereof in the manner explained, the swiveling of the pipe-section 2 to the head 8 permits the whole nozzle to be oscillated or swung on its axis to any position required, thereby providing a great variety of adjustments for the nozzle to render the same especially useful in the emergency of a fire.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or

sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

A water-nozzle comprising a stationary or fixed coupling-head provided at its lower side with a neck, and at its upper side with a bearing-cup formed with a horizontal interior annular flat seat 6, an elbow-pipe section, an exterior packing-collar 4, fitted fast on the lower end of the elbow-pipe section and provided at its lower edge with an outturned flange 5, turning on the interior seat 6, packing filling the space between the packing-collar and the sides of the cup, a ring-gland loosely encircling the elbow-pipe section and provided with a depending flange working within the bearing-cup on the packing therein, an adjustable bolt connection between the gland and the bearing-cup, and a pivotal nozzle member pivotally joined to and communicating with the upper end of the elbow-pipe section, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES M. SHERMAN.

Witnesses:

WALTER WILLIAMS,  
C. E. HICKOK.