D. MANSFIELD.

Street-Sprinkling Apparatus.

No. 212,719. Patented Feb. 25, 1879.

FIG. 1.

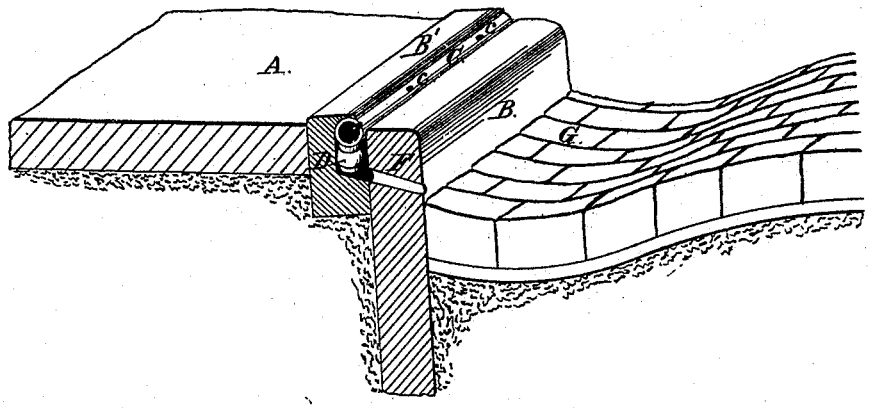


FIG. 2.

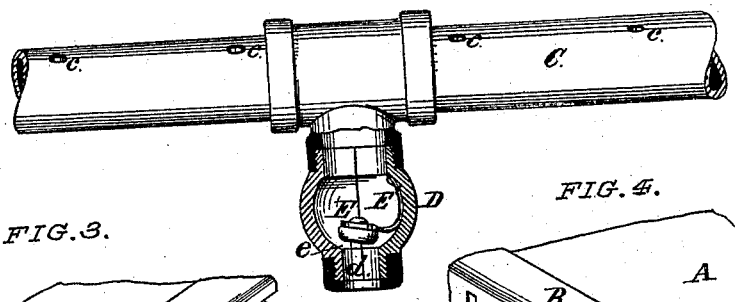


FIG. 3.

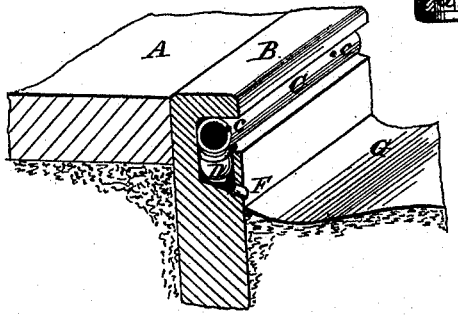
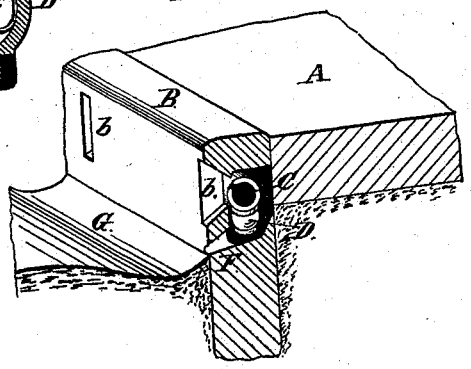


FIG. 4.



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DANA MANSFIELD, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN STREET-SPRINKLING APPARATUS.

Specification forming part of Letters Patent No. **212,719**, dated February 25, 1879; application filed January 11, 1879.

To all whom it may concern:

Be it known that I, DANA MANSFIELD, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Street-Sprinkling Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement consists in a water-pipe fixed along the curb-stone to sprinkle the street from jet-holes in the pipe, the pipe having in connection with it a device to automatically allow the escape of the surplus water on the closing of the communication between the sprinkling-pipe and its water-supply.

My improvement also applies to the construction of the valve, which is supported by a spring, so as to open when relieved from the pressure of the water from the street-main.

Figure 1 is partly in perspective and partly in transverse section, and shows the pipe fixed in the curb of the sidewalk. Fig. 2 is an enlarged side view of the pipe, with the valve-chamber in axial section. Figs. 3 and 4 show two modifications. These figures are part in perspective and part in transverse section.

A represents part of a sidewalk. B is the curb-stone. B′ may represent a timber, stone, or earthenware piece or block laid along behind a curb-stone. C is the water-pipe. I prefer to make the water-pipe of iron; but other suitable material may be used.

The pipe C receives water from the city mains, or from some other source from which water may be had under pressure. The water escapes from the jet-holes *c* in the outer side of the pipe, and is thrown upon the street in fine streams.

D is a valve-chamber beneath the pipe, and in communication with it. These valve-chambers are provided at intervals. They have valve-ports *d* at the bottom, for the escape of surplus water from the pipe C after each sprinkling operation.

During the operation of sprinkling, the water is prevented from escaping through the port *d* by a valve, E, the pressure of the water forcing the valve down upon its seat *e*, as shown. The valve E is attached to the inside of the valve-chamber by a spring, E′, whose tendency is to hold the valve up out of contact with the seat, to allow the escape of water through the valve-port *d*.

The strength of the spring is such that it is overcome by the pressure of the water when the pipe C is in communication with the street-main; but as soon as such communication is closed the valve is lifted by the spring, and the water is discharged from the pipe C and valve-chamber D.

The device for the automatic discharge of the surplus water is chiefly intended for use in cold weather, to prevent the freezing of water within the pipe. In warm weather the valves might be held to their seats by some mechanical appliance, or communication might be closed between the pipe and valve-chambers.

The valve-chamber D is not a matter of necessity, for the ports *d* might be made in the bottom of the pipe C, and the valve E work within the pipe in the manner set forth.

At F are shown passages for the water from the port *d* to the gutter G.

In Figs. 3 and 4 the pipe C is shown inserted in the curb-stone. In Fig. 3 the outer face of the pipe is about flush with that of the curb-stone, while in Fig. 4 it is more deeply set, and vertical slots *b* are made in the curb-stone for the passage of the water-jets.

I claim as my invention—

1. The water-pipe C, fixed at the edge of the sidewalk A, and provided with jet-holes *c*, with device to automatically allow the escape of surplus water, substantially as and for the purpose set forth.

2. In combination with jet-pipe C, the valve E, with lifting-spring E′, operating automatically, for the purpose set forth.

3. The combination of sidewalk A, pipe C, with jet-holes *c*, valve-chamber D, and spring-valve E, all arranged substantially as and for the purpose set forth.

DANA MANSFIELD.

Witnesses:

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