

(No Model.)

2 Sheets—Sheet 1.

C. A. CLARK.
STREET SPRINKLER.

No. 500,853.

Patented July 4, 1893.

Fig. 1.

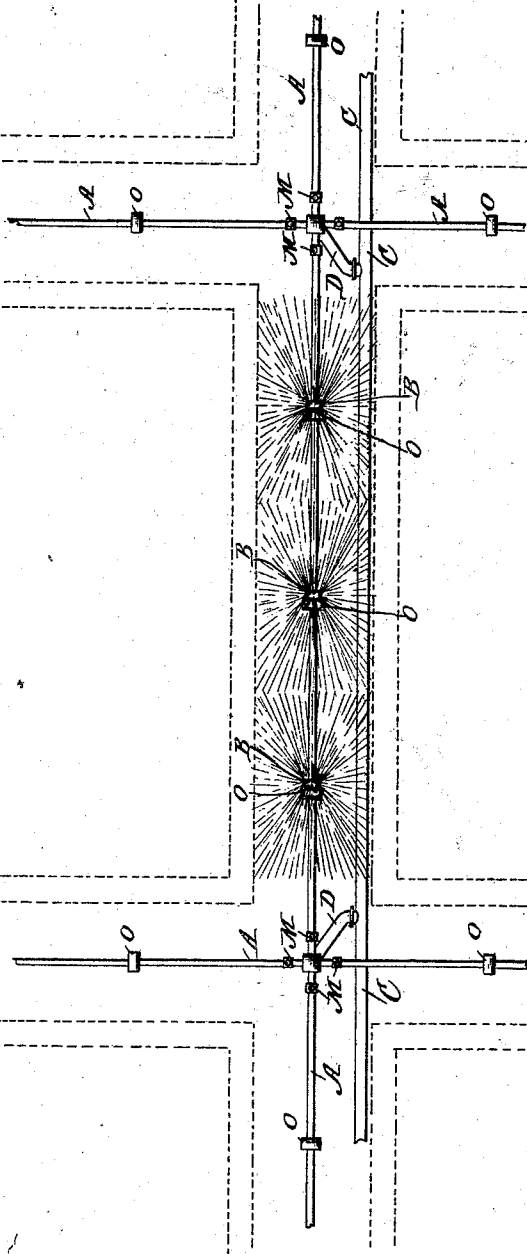
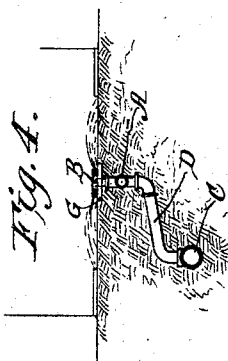


Fig. 2.



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ATTORNEYS.

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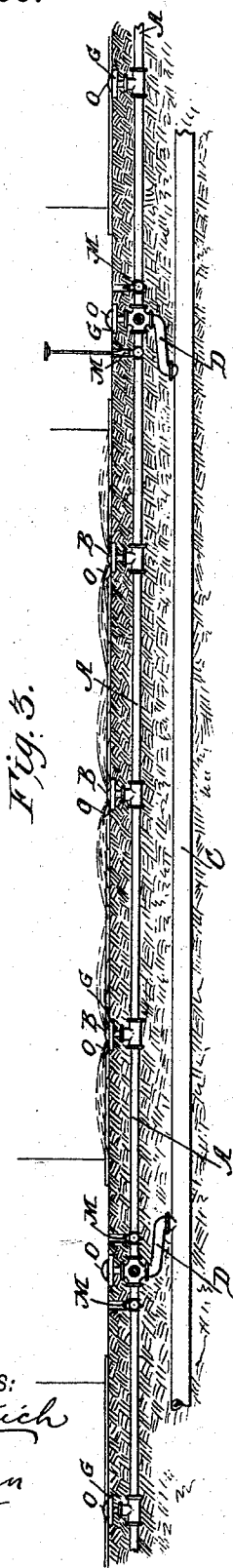


Fig. 5.

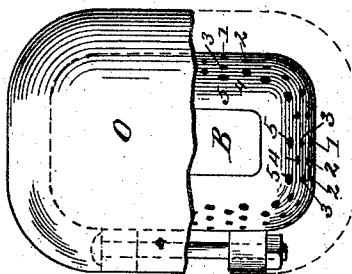
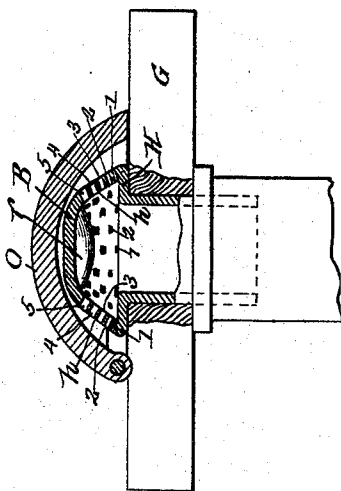


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES A. CLARK, OF PORTLAND, OREGON.

STREET-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 500,853, dated July 4, 1893.

Application filed November 26, 1892. Serial No. 453,285. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. CLARK, of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Street-Sprinklers, of which the following is a specification.

The present methods of street sprinkling are wasteful, costly, and ineffectual. The watering carts, running in the heat of the day, scatter the water when the conditions are most favorable to rapid evaporation. Moreover, the rapid passage of traffic over the newly watered streets throws a fresh layer of dust over the watered surface, and quickly destroys any good effect produced by the carts. Again the carts are frequently delayed by traffic and consequently during such delay an excess of water is deposited which merely runs into the gutter and is lost. My invention seeks to avoid these defects by providing a stationary system of sprinkling, which shall be a fixture in the streets, and shall be at all times perfectly controllable by the man in charge, which I will now proceed to describe.

Figure 1 is a plan view showing the general arrangement of my apparatus, and its application to the streets of a city. Fig. 2 is an enlarged cross section through the sprinkling rose showing the details of construction. Fig. 3 is a section along the center line of a street showing the method of connecting my apparatus with the city water mains, and also the arrangement of the sprinklers. Fig. 4 is a cross section on a street showing details of connections, &c., as above. Fig. 5 is a plan view of the sprinkler rose, showing one half of it covered by its guard plate.

My invention comprehends a system of pipes, of an approximate diameter of two inches, A A (see Figs. 1, 2, 3, 4, and 5) which are laid down through the center of all streets to be watered. I do not make it imperative that these pipes shall be in the exact center, since in the case where car lines are laid down it might be found preferable to lay these pipes a little off from the center. Where these pipes intersect at the street crossings they unite in a four-way joint as shown in plan in Fig. 1 and in elevation in Fig. 3. Immediately below this joint is attached a larger pipe D, which leads to the water main C (Figs. 1,

3 and 4). On each side of the four-way joint is placed a valve M, M, which serves to control the water supply in each street. By this means it is possible to water one or all four streets, that lead from any one crossing, as may be desired. At intervals of from forty feet to sixty feet there are placed on the two inch pipes sprinkling nozzles or roses B, B, as clearly shown in Figs. 1, 3 and 4; and in fuller detail in Figs. 2 and 5. These roses are of a shape as shown in Figs. 2 and 5, and are screwed firmly into the two inch "T's" as shown. They are formed with an under shoulder H, which rests on a block of wood or stone G, G as shown, which is fixed in the road bed and serves to carry the weight, and prevent the apparatus being driven down by the blows of passing traffic. The sides of the nozzle are formed with an upward and inward slope, being flattened on the top and strengthened by wires or ribs *r* on the under side. The rose is oblong in plan, as shown in Fig. 5, and this is done so that the greater amount of water may be delivered up and down the length of the street, and a smaller amount toward the side walks, thereby securing an even distribution of the water. The sloping sides *h* of the rose are perforated with holes 1—2—3—4—5, of a size and number as may be required by the width of streets, and distance apart of the roses. The holes in the bottom line 1, are smallest, and they gradually increase until the top row is reached where they are largest. By this means also I secure an even distribution of the water. The smallest bottom row of holes throw a certain distance, the next upper row a little farther, and the topmost and largest holes throw the farthest and are gaged just to meet the spray coming in an opposite direction from the next sprinklers on either side. This action of these roses or spray nozzles is clearly shown by dotted lines in Figs. 1, 3 and 4.

To protect the nozzles from being injured or clogged up by the traffic, I provide a strong cast iron shield or guard plate O of a dish shape, which is hinged securely to the bottom edge of the nozzle and can be thrown back when it is desired to sprinkle the streets. The two inch pipe is laid preferably about six inches below the surface of the street, and I

wish it to be understood that I do not bind myself to the exact sizes of pipe here mentioned, but can vary them to suit any particular case.

5 In operation, the man in charge first throws back the hinged shield that covers the nozzles, and then by turning on any one or all of the valves M, M, he can water one or all four of the streets that intersect at any given corner.

10 I am aware that water pipes and spray nozzles have been arranged permanently in the street bed for sprinkling the same and I make no broad claim to the same.

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

1. The combination with the water pipe; of the rose sprinkler B fixed thereon and having overhanging shoulder H, and inwardly

and upwardly sloping and perforated sides, 20 the subjacent block G lying beneath the shoulder of the sprinkler and holding it from being driven downwardly, and the convex or dish-shaped cover O hinged to the sprinkler and folding over and protecting the same, 25 substantially as shown and described.

2. The combination with a series of pipes laid below the surface of the streets of a city, of a series of perforated sprinklers or spray nozzles laid in the street and having holes in- 30 creasing in size from the bottom toward the top to distribute the water as and for the purposes specified.

CHARLES A. CLARK.

Witnesses:

N. L. RABER,

CHAS. N. SCOTT.