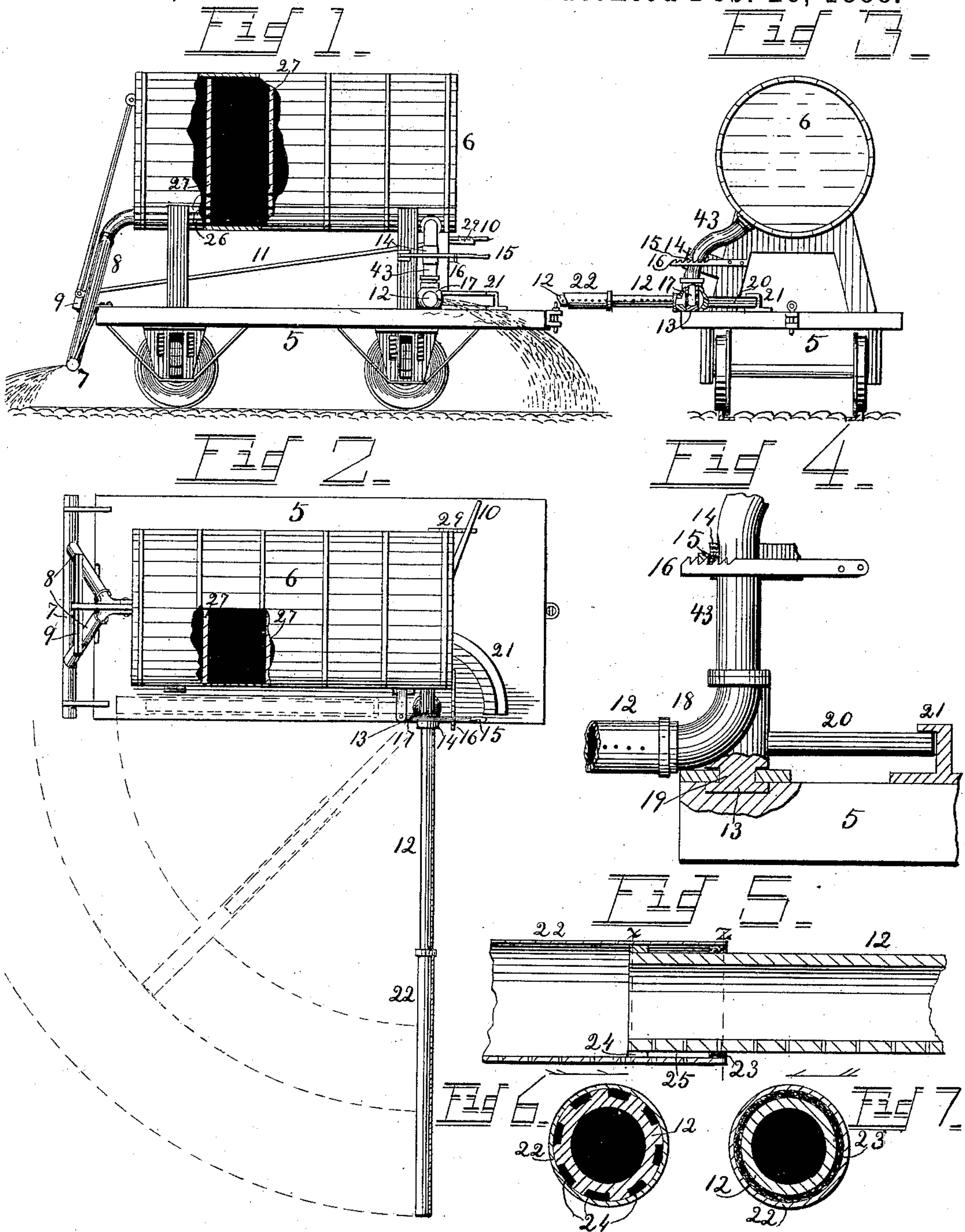


(No Model.)

J. R. GATHRIGHT.
RAILWAY STREET SPRINKLER.

No. 378,672.

Patented Feb. 28, 1888.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN R. GATHRIGHT, OF LOUISVILLE, KENTUCKY.

RAILWAY STREET-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 378,672, dated February 28, 1888.

Application filed June 11, 1887. Serial No. 240,964. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. GATHRIGHT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Railway Street-Sprinklers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of water-sprinklers which are carried upon wheeled vehicles for the purpose of sprinkling streets. Heretofore such sprinklers have usually been mounted on wagons, which might be driven upon any street and be turned from side to side in their course to pass other vehicles and to avoid obstructions.

This invention is intended more particularly to be used upon railway-cars in streets or elsewhere, although adapted also for wagons; and its object is to provide means whereby a car traveling upon its fixed track may sprinkle the whole width of the street, whether the same be wide or narrow, and whether the track be in the center of the street or to either side thereof. The object is also to enable the sprinkling-car to safely pass other cars on adjacent tracks, and to pass other street-vehicles and stationary obstructions. The object is, furthermore, to provide means to entirely stop the flow of water from the sprinklers, to regulate its flow, and to prevent its slopping or rolling in waves along the tank by the action of the car's motion.

To this end the invention consists in the construction and combination of parts forming a railway street-sprinkler, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a car, showing my invention with a portion of the tank broken away. Fig. 2 is a plan view of the same. Fig. 3 is a front end elevation of a portion thereof. Fig. 4 shows a modification of the pivotal joint of one of the sprinklers. Fig. 5 is a detail view, partly in longitudinal and partly in transverse section, of the telescoping sprinkler-pipe. Fig. 6 is a transverse section of the sprinkler-pipe at dotted line *x*, Fig. 5; and Fig. 7 is a transverse section of the same pipe at line *z*, Fig. 5.

5 represents a car. 6 is a water-tank mounted thereon at a sufficient height to furnish head to project the water to the required distance. 55

7 is a common perforated sprinkling-pipe located at the back of the car to sprinkle directly on the railroad. As a matter of safety against meeting obstacles, the pipe 7 should not project beyond the sides of the car. 60

8 represents flexible pipes—such as rubber hose—communicating between the tank 6 and the sprinkling-pipe 7.

9 is the shoe of a gate adapted to stop the flow of water by pressing the hose-pipes 8 together and thus closing them. 65

10 is a lever pivoted to some fixture of the car or tank with its handle in reach of the car-driver.

11 is a connecting-rod between the shoe 9 and the lever 10. 70

29 is a toothed rack fixed in the path of the lever 10, whereby the latter may be fastened to close the gate 9, or to hold it at any required degree of opening, so that little or much water may thus be allowed to enter and flow from the sprinkler pipe 7. 75

12 is the perforated side sprinkler-pipe, pivoted at the car at 13, to swing in nearly a horizontal plane, so that it may extend at right angles from the side of the car across that side of the street; or it may be folded back to the side of the car. It may also be set for service at any intermediate angle. 80

43 is a flexible pipe or hose communicating between the sprinkler 12 and the tank 6. 85

14 is a gate-shoe whose lever 15 is pivoted to a fixed portion of the car or tank to swing to and from the pipe 43, and adapted to engage a toothed rack, 16, to operate like the lever 10. Connection may be made between the sprinkler 12 and its supply-pipe 43 by means of the usual hinged pipe-joint, 17, made like gas-pipe hinge-joints, so that the sprinkler 12 may be turned and used at any required angle without leaking or interrupting the flow of water. 95

The modification, Fig. 4, shows a mere pipe-elbow, 18, connecting the pipes 12 and 43, and a pivot-joint, 19, for pipe 12 to turn on. In this case the flexibility of the hose 43 is relied upon to permit the turning of the pipe 12. 100

20 represents an arm fixed to the pipe 12, in line therewith at the opposite side of the pivot-

joint, and adapted to engage a circular segment, 21, which is fixed to the car. The arm 20, being held down by the segment 21, serves as a support to the pipe 12, in whatever position the latter may be, and yet permits the sprinkler 12 to yield and swing to the rear in case it is accidentally advanced against an obstruction. The sprinkler thus yielding is saved from damage, and its swinging means of adjustment enables the operator to set it at such an angle as will cover the width of the street at that side of the car-track. Of course two or more such swinging sprinklers may be attached to different sides of the same car; but it is expected to be attached only to the off side from the other car-track. In case the street is very wide I provide one or more sections of sprinkler-pipes, 12 and 22, one to telescope with the other. The outside pipe, 22, Fig. 5, should be provided with a simple packing, 23, to slide upon the inner pipe, 12, and the inner pipe, 12, should have apertures 24 around its end, through which water may freely enter the space 25 between the two pipes, so as to be forced through the outer sprinkler. The usual sprinkling-apertures in pipe 12 may fully answer the last-named purpose without the aid of apertures 24. Other equivalent devices may be used in place of the toothed segments 29 and 16 to secure the levers 10 and 15 at the points desired.

The tank is provided with partitions 27, crossing it internally, to prevent longitudinal rushing of the water, and each partition is perforated at 26, near its bottom, to permit the water to slowly pass to the discharge-pipe.

Rigid pipes provided with stop and regulating cocks may be used as a substitute for the flexible tank-pipes regulated by levers operating valves or gates to close their inlets.

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

1. The combination of a water-tank mounted on a car, a sprinkler-pipe perforated along one side and pivoted at one end upon the forward part of the car beside the tank, and a pipe connecting the sprinkler-pipe with the tank,

substantially as shown and described, whereby a sprinkler-pipe is adapted to rest its length upon the car in one position and to swing from the side of the car, as shown in Fig. 2, and to deliver water from its side.

2. The combination of a water-tank mounted on a car, a sprinkler-pipe perforated along one side and pivoted at one end upon the forward part of the car beside the tank, a pipe connecting the sprinkler-pipe with the tank, and another sprinkler-pipe perforated along one side and arranged to telescope with the first-named sprinkler-pipe, substantially as shown and described, whereby a sprinkler-pipe is adapted to rest its length upon the car, also to be swung away from the side of the car to various positions, as shown in Fig. 2, and to be lengthened or shortened when in any position to cover paths of different widths, and to deliver water from its side throughout its whole length under all the above conditions.

3. The combination of two sprinkler-pipes arranged to telescope together, each being perforated along one side, the interior of one pipe being somewhat larger than the exterior of the other, allowing water-space between them, the outer pipe being provided with an internal packing-ring at its end, to fit and slide upon the inner pipe, and the inner pipe being enlarged at its end, and provided with apertures through said enlargement, through which water may freely pass from the inner pipe to the space between the pipes, substantially as shown and described.

4. The combination of the car 5, the pipe 12, perforated along one side and provided with a pivot, 19, connecting it with the car, the arm 20, connected with the pipe 12, and the circular segment 21, fixed upon the car concentrically with the pivot 19 and adapted to be engaged by the arm 20, substantially as shown and described.

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

JOHN R. GATHRIGHT.

Witnesses:

WALTER WALKER,
JOS. B. GATHRIGHT.