No. 655,129. Patented July 31, 1900.

A. THOMAS.

SPRINKLING CAR.

(Application filed Aug. 23, 1897. Renewed Dec. 30, 1899.)

(No Model.)

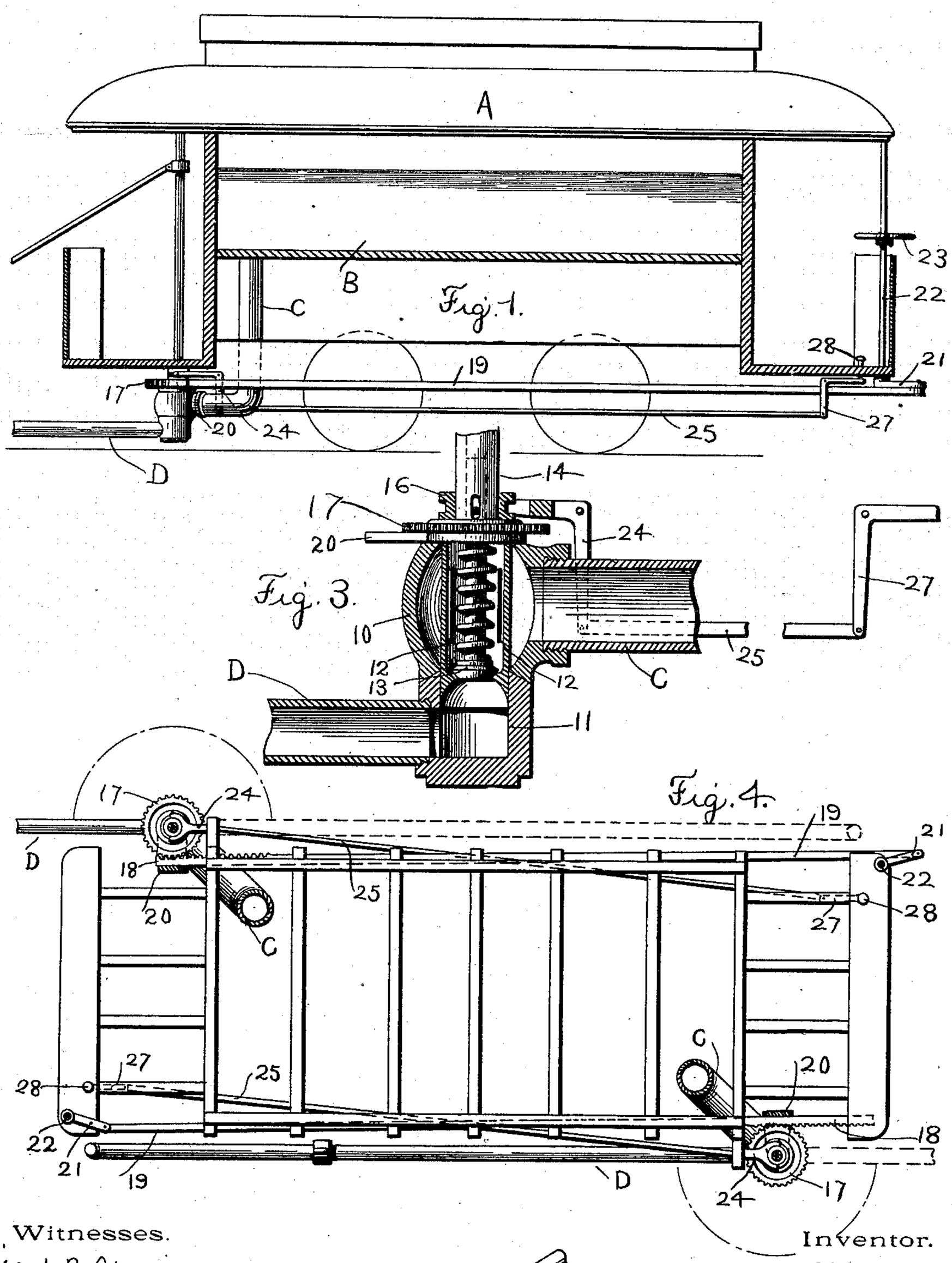

Fig. 1.

Fig. 3.

Fig. 4.

Witnesses.
W. J. Baldwin
H. E. Sheehan

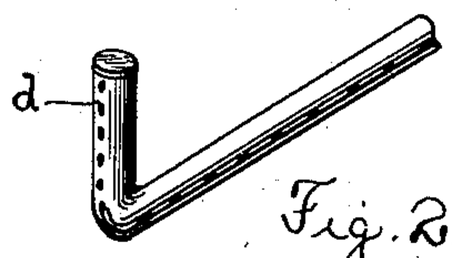

Fig. 2.

Inventor.
A. Thomas.
By
Southgate & Southgate
Attorneys.

UNITED STATES PATENT OFFICE.

ALFRED THOMAS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO THE AMERICAN CAR SPRINKLER COMPANY, OF SAME PLACE.

SPRINKLING-CAR.

SPECIFICATION forming part of Letters Patent No. 655,129, dated July 31, 1900.

Application filed August 23, 1897. Renewed December 30, 1899. Serial No. 742,162. (No model.)

To all whom it may concern:

Be it known that I, ALFRED THOMAS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Sprinkling-Cars, of which the following is a specification.

My invention relates to that class of side-arm sprinkling-cars illustrated in the United States patent to John R. Gathright, No. 378,672, granted February 28, 1888; and the objects of my invention are to prevent mud and water from being spattered on the running-gear of the car by pivoting the sprinkler-pipe so that the same will swing to the rear of the car when in use, to provide connections for controlling the rearwardly-swinging sprinkler-pipe from the front part of the car, and to provide simple and efficient shut-off devices which also may be controlled from the front part of the car.

To these ends my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a diagrammatic view of a car provided with sprinkling attachments constructed according to my invention. Fig. 2 is a detail view of one of the sprinkler-pipes. Fig. 3 is a detail sectional view, on an enlarged scale, illustrating the shut-off connections which I preferably employ; and Fig. 4 is a diagrammatic plan view of a car provided with sprinkling attachments constructed according to my invention.

Side-arm sprinkling-cars of the class to which my invention relates employ sprinkler-pipes which are mounted to extend at an angle from the car-body to sprinkle the roadway at the side of the track, said side arms or sprinkler-pipes being preferably mounted to swing back out of the way to pass teams or obstructions which may be encountered. In this class of sprinkling-cars the perforated sprinkler-pipe has heretofore been swung back alongside of the car-body when an obstruction is to be passed, and unless the water-supply is promptly shut off it frequently happens that considerable quantities of mud and water will be spattered onto the running-gear of the car. This is especially objectionable when electric motors for driving the car are mounted on the trucks.

The especial object of my invention is therefore to provide a construction in which the sprinkler-pipe will swing back to the rear of the car when passing obstructions, so that even when water is allowed to continue to flow through the sprinkler-pipe the car-body will not be unnecessarily spattered.

Referring to the drawings and in detail, A designates the car-body, having a water-tank B mounted therein. Extending down from the water-tank B at diagonally-opposite corners of the car are outlet-pipes C. These parts are of the ordinary or approved construction and need not be described at length.

Pivotally connected to the lower end of the outlet-pipes C are perforated sprinkler-pipes D. The sprinkler-pipes D are preferably provided with upturned or bent ends *d*, as illustrated in Fig. 2, so that water can be sprayed to a considerable distance from the tracks on which the car runs.

In sprinkling-cars constructed according to my invention the sprinkler-pipes D are preferably free to make a substantially half-turn or to swing through one hundred and eighty degrees, so that said pipes may extend to the rear of the car when in use and may be folded alongside the car, so as to be out of the way, when not in use and to take up the least possible space in the barns where the cars are kept.

The operating devices for the sprinkler-pipes D are arranged to be controlled from the front part of the car. As illustrated most clearly in Fig. 3, the outlet-pipe C is provided with an end casing or fixture 10 for receiving an elbow 11, carrying the perforated sprinkler-pipe D. Fastened upon the elbow 11 is a gear 17, which meshes with a rack 18, carried by a connecting-rod 19. The rack 18 is supported and held in mesh with the gear 17 by means of a yoke 20. A vertical controlling-shaft 22 is mounted near the front part of the car and is provided with an operating-wheel 23. Extending from the lower end of the vertical operating-shaft 22 is a crank-arm 21, which is pivotally connected to the rod 19.

By means of this construction it will be seen that an operator at the front part of the car can control a sprinkler-pipe D, so as to turn the same to extend at an angle from the car-body to sprinkle the roadway at the side of the track and may swing the same back from the car-body when a team or obstruction is encountered.

When a sprinkler-pipe is no longer in use, or when the car is to be returned to the barn, the sprinkler-pipe D can be turned through substantially one hundred and eighty degrees, as illustrated by dotted lines in Fig. 4, to extend alongside of the car-body and take up the least possible room.

The shut-off devices which I preferably employ are most clearly illustrated in Fig. 3. As shown in this figure, the elbow 11 is slotted, as at 12, so that water may be admitted to the interior thereof from the outlet-pipe C. Mounted in the elbow 11, in position to cooperate with a valve-seat therein, is a spring-pressed normally-closed shut-off valve 13. The stem of the valve 13 extends up through the hollow vertical rock-shaft 14 and is connected to a collar 16, mounted thereon. Engaging with and operating the collar 16 is a yoke carried by a bell-crank lever 24. Pivotally mounted at the front part of the car, in position to be conveniently operated by a footpiece 28, is a bell-crank lever 27, which is connected to the bell-crank lever 24 by a rod 25. By means of this construction it will be seen that I have provided foot-controlled shut-off connections which can be conveniently operated in connection with the hand-wheel 23, which controls the position of the sprinkler-arm D.

I am aware that changes may be made in the construction of sprinkling-cars by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the form which I have shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a street-sprinkling car, the combination of a car-body, a water-tank and a perforated sprinkler-pipe connected to the water-tank, said sprinkler-pipe being pivotally mounted at the rear of the running-gear of the car to swing behind the car when passing obstructions, substantially as and for the purpose set forth.

2. In a sprinkling-car, the combination of a car-body, a water-tank, a sprinkler-pipe pivotally mounted at the rear of the running-gear of the car to swing behind said car when passing obstructions, and connections for operating said sprinkler-pipe from the front part of the car, substantially as described.

3. In a sprinkling-car, the combination of a car-body, a water-tank, and a perforated sprinkler-pipe, said sprinkler-pipe being pivotally mounted to swing to the rear of the car when in use, and to be folded to the side of the car when not in use, substantially as described.

4. In a sprinkling-car, the combination of a car-body, a sprinkler-pipe pivotally mounted to swing to the rear of the car, a gear connected to said sprinkler-pipe, a vertical operating-shaft mounted near the front part of the car, a crank-arm extending from said operating-shaft, and a rod connected thereto, and having a rack engaging the gear, substantially as described.

5. In a street-sprinkling car, the combination of a car-body, a water-tank, a sprinkler-pipe pivotally mounted at the rear of the running-gear of the car to swing behind the car when passing obstructions, connections for operating said sprinkler-pipe from the front part of the car, and shut-off connections also arranged to be operated from the front part of the car, substantially as described.

6. In a street-sprinkling car, the combination of a car-body, a water-tank, a rearwardly-swinging sprinkler-pipe D, a normally-closed spring-pressed valve 13, an operating-collar 16 connected to the valve-stem, a bell-crank lever 24 engaging said collar, a bell-crank lever 27 mounted on the front part of the car, a footpiece 28 for operating said bell-crank lever, and a rod 25 for connecting the bell-crank levers 24 and 27, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALFRED THOMAS.

Witnesses:
PHILIP W. SOUTHGATE,
JOHN F. CROWELL.