S. CONRATH.

STREET SWEEPER.

APPLICATION FILED NOV. 25, 1907.

930,269. Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.

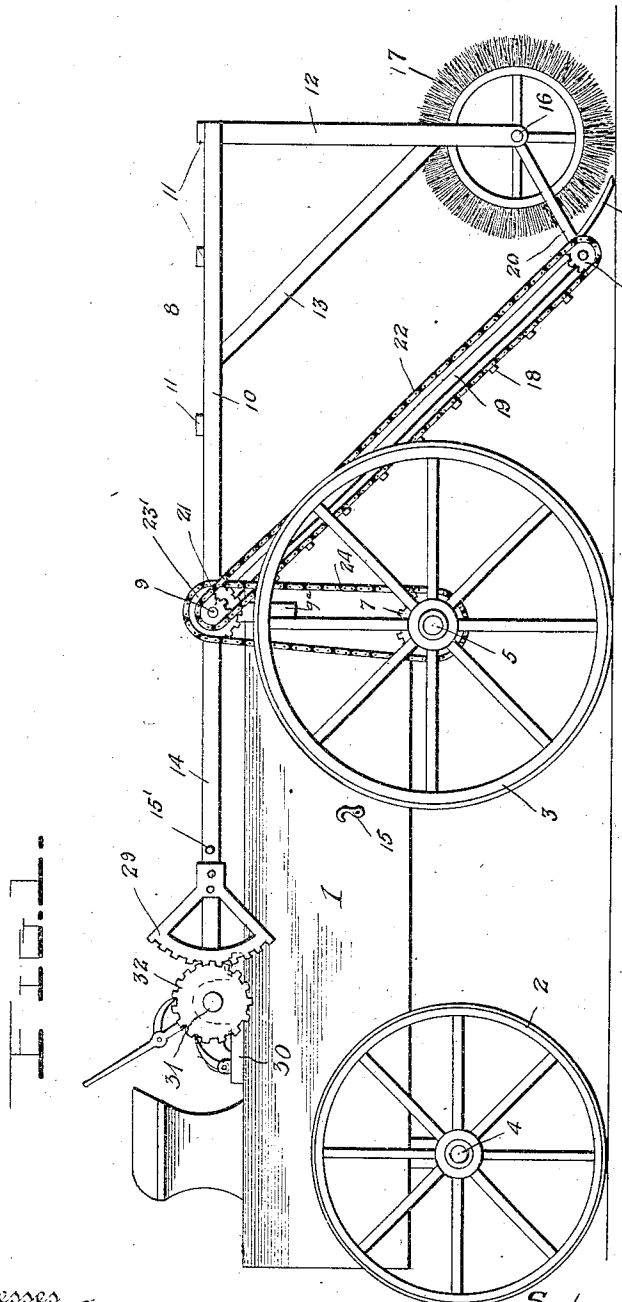

Fig. 1.

Witnesses
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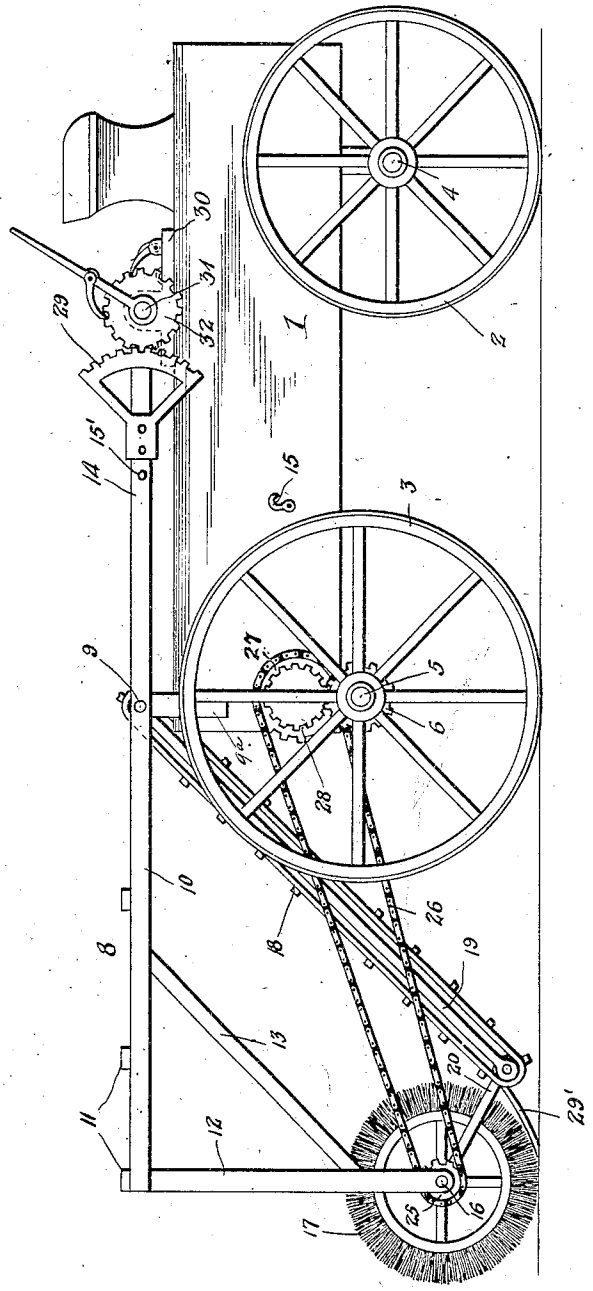

FIG. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

SOLOMON CONRATH, OF OLEAN, NEW YORK.

STREET-SWEEPER.

No. 930,269. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed November 25, 1907. Serial No. 403,825.

To all whom it may concern:

Be it known that I, SOLOMON CONRATH, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Street-Sweepers; and I do 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 certain new and useful improvements in street sweepers.

The object of the invention is to improve the construction illustrated in my Patent No. 700,900, granted May 27, 1902.

With this and other objects in view, the invention consists in certain novel features of construction and combination and arrangement of parts as will be hereinafter more fully described, defined in the appended claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a left-hand side elevation; and Fig. 2 is a right-hand side elevation.

Like reference characters designate like parts throughout the several views.

The numeral 1 in the drawings represents an ordinary wagon box or body which serves as a receptacle for the sweepings. This box or body is supported by the front and rear wheels 2 and 3, mounted upon the axles 4 and 5. These parts of the running-gear may be of the ordinary construction, except that I fix upon the hub of one of the rear wheels 3, a spur gear-rim 6 and upon the hub of the other rear wheel 3 a sprocket-rim 7. Where the axle 5 rotates and the wheels 3 are fixed thereto the said gear-rims 6 and 7 may be secured to or formed upon the axle, if desired.

The sweeping mechanism is carried by a frame 8, mounted to swing in a vertical plane upon a transverse shaft 9, journaled in standards 9^a mounted upon the rear end of the body, said frame comprising in its construction side bars 10, connected by cross pieces 11 and having depending therefrom hangers 12, maintained in rigid relation to the bars by inclined braces 13. The forward ends of the bars 10 are extended to form levers, 14, upon which are secured rack bars, 29, and these levers are adapted, by means of a pin 15′, to be engaged by catches, 15, secured to the sides of the wagon-body, to hold the frame and the sweeping mechanism carried thereby elevated out of action.

Secured to the body of the wagon on each side thereof are bearing blocks, 30, in which is journaled a transverse shaft, 31, provided with gear wheels, 32, at each side to engage the rack bars 29 carried upon the ends of the levers 14. One end of the shaft is suitably squared to receive an operating wrench by which the frame may be tilted upon its fulcrum or shaft, 9, and the sweeping brush thereby adjusted. When it is desired to raise the brush entirely out of engagement with the ground, the shaft 30 is turned until the gears 32 disengage themselves from the racks 29 and the device is then thrown down by hand until the hooks 15 engage over the pins 15′.

Journaled in the lower ends of the hangers is a shaft 16, carrying the rotating brush 17, with which coöperates an endless conveyer 18, which carries the sweepings from the brush to the box or body 1. This endless conveyer is mounted upon a suitable frame, 19, supported at its lower end from the hangers 12 or shaft 16 by braces 20 and mounted to swing at its upper end upon the transverse shaft 9. Motion is transmitted to the endless conveyer through a sprocket-pinion 21, fixed to the shaft 9 and connected by a chain 22 to the sprocket-wheel 23, fixed to a shaft journaled in the lower end of the conveyer frame 19. The shaft 9 is provided with a sprocket wheel 23 and is driven by a chain 24, connecting said sprocket wheel with the sprocket wheel or rim 7 on the hub of one of the rear wheels 3.

The brush 17 is rotated by means of a sprocket-pinion 25, fixed to the shaft 16 and connected by a chain 26 with a sprocket wheel 27, suitably journaled upon the bed or body 1 and rigidly connected with a spur gear-wheel 28, which meshes with the spur-gear 6, fixed upon the hub of the other rear wheel.

A curved deflector or conductor plate 29′, secured to the braces 20 is provided to cover the space below the brush 17 and between the same and the lower end of the endless conveyer to catch the sweepings from the brush and permit of the same being forced up onto said conveyer.

In operation the sweeping mechanism is thrown into action by releasing the catches 15 from engagement with the levers 14,

whereupon the frame 8 will swing downwardly by gravity, thus bringing the brush 17 into contact with the ground. The rotation of said brush effects the sweeping of the street-surface, and the sweepings are deposited thereby upon the endless conveyer 18, which deposits the same into the wagon or body 1, and the pressure of the brush may be adjusted as desired, the maximum pressure being obtained when both racks are free to move with relation to the gears. When the wagon-body is filled, the sweepings may be removed therefrom in any approved manner.

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

In a street sweeper, the combination of a wagon body or box and its running gear, standards mounted upon the rear end of the body, a sweeper mechanism support pivoted upon said standards, a sweeper mechanism carried thereby, a pair of rigid forwardly extending arms forming a part of said support, a pair of segmental rack arms connected to said arms a pair of bearing elements secured to the wagon body, a transverse shaft journaled in said bearings on top of the wagon body adjacent its forward end, a pair of gears rigidly connected to said shaft at each end thereof on the outside of said bearings and adapted to engage said rack arms, an operating lever pivoted to said shaft at one end thereof, a pawl pivoted on said lever for engaging the gear to operate the same in one direction only, a pair of pawls pivoted one to each bearing element and adapted to hold the gears in adjusted position, pins on said arms, and hooks pivoted to the body for engaging said pins whereby the arms may be held in depressed position and the sweeper mechanism elevated.

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

his
SOLOMON × CONRATH.
mark

Witnesses:
HENRY EVENS,
EVA M. EVENS.