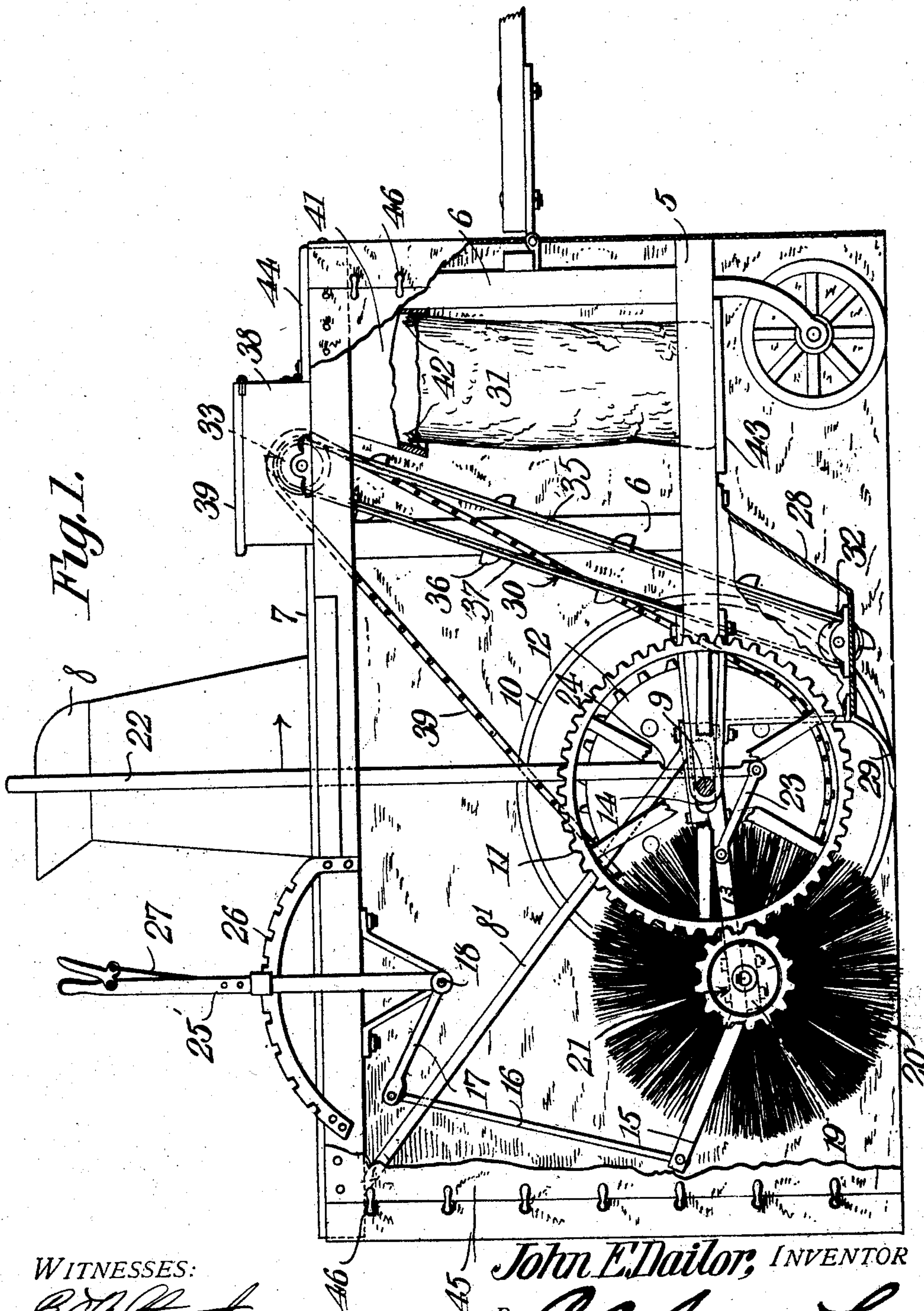


No. 859,487.

PATENTED JULY 9, 1907.

J. E. DAILOR.  
STREET SWEEPING MACHINE.  
APPLICATION FILED JULY 16, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

*E. J. Stewart*  
*L. S. Acker*

John E. Dailor, INVENTOR

By

*C. A. Snow & Co.*

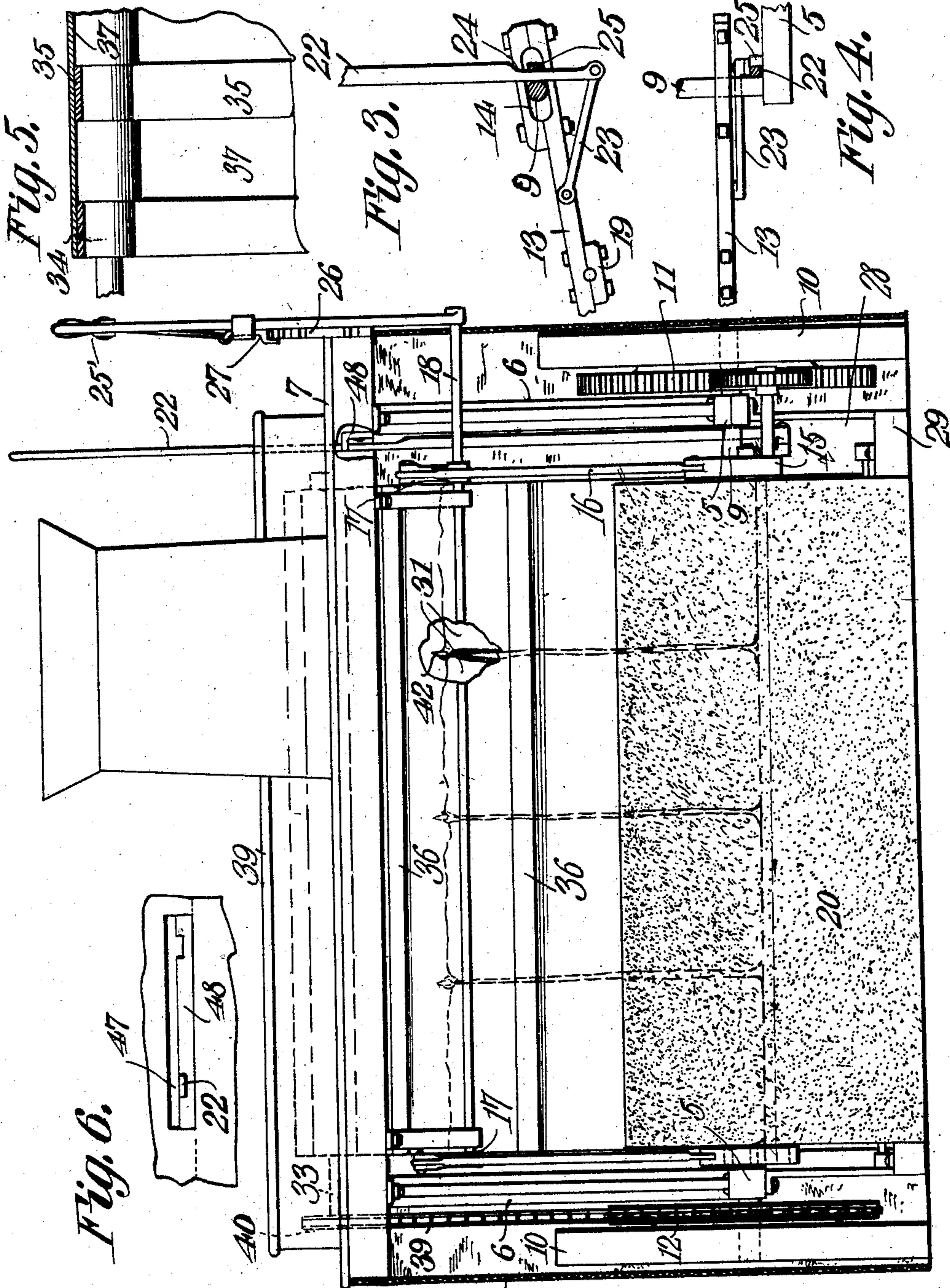
ATTORNEYS

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2 SHEETS—SHEET 2.



WITNESSES:

*E. J. Stewart*  
*L. J. McKee*

Fig. 2.

John E. Dailor, INVENTOR.

By *C. A. Snow & Co.*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

JOHN E. DAILOR, OF ROCHESTER, NEW YORK.

## STREET-SWEEPING MACHINE.

No. 859,487.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed July 16, 1906. Serial No. 326,483.

*To all whom it may concern:*

Be it known that I, JOHN E. DAILOR, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Street-Sweeping Machine, of which the following is a specification.

This invention relates to street sweeping machines, and has for its object to provide a strong durable machine employing a rotary brush and having an endless conveyer associated therewith for delivering the sweepings into suitable bags or receptacles adapted to receive the same.

A further object of the invention is to provide improved means for elevating and lowering the rotary brush or sweeping element and means for moving said brush into and out of operative engagement with the driving axle.

A further object is to provide means for centering the endless conveyer on the spaced supporting rollers, and means for preventing the escape of dust and dirt during the sweeping operation.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation partly in section of a street sweeping machine constructed in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation of a portion of the clutch lever. Fig. 4 is a top plan view of the same. Fig. 5 is a detail sectional view of a portion of one of the belt supporting rollers showing the manner of centering the belt or conveyer. Fig. 6 is a top plan view of the keeper for the clutch lever.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved machine comprises a wheeled truck consisting of spaced longitudinal side bars 5 provided with uprights 6 supporting a platform 7 upon which is mounted in any suitable manner a seat 8, said platform and side bars being connected by diagonal brace rods 8' as shown. Journaled in suitable bearings in the free ends of the longitudinal bars 5 is a shaft 9 carrying traction-wheels 10, one of said wheels having rigidly secured thereto the gear-wheel 11 and the opposite wheel provided with a sprocket 12 as shown.

Pivottally mounted on the axle 9 are spaced supporting members or hangers 13 each having one end thereof

provided with an elongated slot 14 for the reception of the axle 9 and its opposite or free ends deflected upwardly as indicated at 15 and connected through the medium of a rod 16 with the crank arm 17 of a transverse shaft 18.

Journaled in suitable bearings 19 carried by the supporting members 13 is a rotary brush 20. The rotary brush 20 is provided with a gear-wheel 21 which meshes with the master-gear 11 whereby motion is imparted to the brush.

The pinion 21 is moved into and out of gear with the master gear 11 by means of a lever 22 the lower end of which is pivottally connected to the adjacent supporting members 13 by a link 23. The lower end of the lever 22 bears against the shaft or axle 9 and is provided with a recess 24 which engages a suitable lug or projection 25 extending laterally from one end of one of the longitudinal bars 5 of the truck so that when the lever is moved in the direction indicated by the arrow in Fig. 1 of the drawing the link 23 will move the adjacent supporting member 13 longitudinally and thus disconnect the gears 21 and 11 so that the movement of the shaft will not affect the brush.

As a means for raising and lowering the sweeping element or brush 21 a lever 25' is secured to the shaft 18 on one side of the machine and is movable over the toothed face 26 of a segmental, rack as shown, so that by moving the lever in the direction of the seat 8 and releasing the spring locking member 27 the brush will be locked in elevated or inoperative position.

Secured in any suitable manner to the side bars 5 is a depending trough 28 provided with a curved plate 29 and movable within the trough 28 is an endless belt or conveyer 30 for conveying the sweepings from the trough to a plurality of bags or other suitable receptacles 31. The conveyer 30 is mounted on suitable rollers 32 and 33 journaled in the trough and the side walls of the platform respectively, said rollers being provided with spaced depressions or recesses 34 for the reception of the spaced straps 35 of the belt as shown, the buckets 36 being secured to the outer layer 37 of the belt by suitable fastening devices. By having the belt mounted on the roller in the manner described the latter is effectually centered and locked against lateral movement. Extending transversely across the top of the platform is a hood 38 provided with a hinged cover 39 so that access may be obtained to the belt, the latter being driven by a sprocket-chain 39 connecting the sprocket-wheel 40 on the roller 33 with the sprocket-wheel 12 as shown. Depending from the platform 7 is a hopper 41 provided with inwardly extending impaling pins 42 for engagement with the bags 31, the latter resting on a supporting platform 43 secured to the side bars of the frame. The platform 7 is provided with a pivoted closure 44 communicating with the hopper 41. The opposite sides of the platform 7 pref-



erably extend laterally beyond the wheels of the truck and secured in any suitable manner to the sides of the platform is a flexible covering 45 which prevents the escape of dust and dirt during the sweeping operation. The adjacent ends of the fabric or canvas forming the flexible covering or closure 45 are overlapped and secured together by suitable fastening devices 46 at each end of the machine so as to permit the ready removal of the bags or receptacles 31 containing the sweepings.

The operation of the device is as follows: The lever 25 is operated to lower the brush 21 in contact with the surface to be cleaned and the lever 22 moved into engagement with the locking notch 47 of the keeper 48 thus locking the gears 21 and 11 in engagement with each other. When it is desired to elevate the brush without throwing the latter out of gear a forward pull is exerted on the lever 25 which elevates the hangers or supporting members 13 and thus permits the brush to clear any obstruction in the road-bed.

In order to throw the machine out of operation the lever 22 is moved in the direction of the arrow in Fig. 1 which moves the adjacent supporting member 13 longitudinally and thus disconnects the gears 21 and 11. When the brush is operatively connected with the master-gear 11 the sweepings will be deposited in the trough 28 and thence be delivered by the conveyer 30 into the bags or receptacles 31, the latter when they are filled being detached from the hooks 42 and removed through the side of the frame by detaching the fastening devices 46 and moving the covering 45 laterally to permit the removal of said bags.

From the foregoing description it is thought that the construction and operation of the device will be readily understood by those skilled in the art and further description thereof is deemed unnecessary.

Having thus described the invention what is claimed is:

1. A street sweeper comprising a wheeled truck having an axle and including longitudinal side bars provided with an inwardly extending lug, a master gear driven by the axle, hangers pivotally mounted on said axle, a brush journaled in the hangers and provided with a pinion

adapted to mesh with the master gear, and a lever interposed between the axle and the adjacent lug and having a link connection with one of the hangers for moving the pinion into and out of engagement with the master gear. 45

2. In a sweeper, a wheeled truck including an axle, and provided with an inwardly extending lug a master gear secured to one of the wheels of the truck, hangers pivotally mounted on the axle, and a brush journaled in the hangers and provided with a pinion adapted to mesh with the master gear, a lever bearing against the axle and lug, respectively, and having a link connection with the adjacent hanger for moving the pinion into and out of engagement with the master gear, and a hand operated lever having a link connection with the hangers for elevating the brush. 50 55

3. In a sweeper, a wheeled truck including an axle, and provided with an inwardly extending lug a sprocket wheel secured to one of the wheels of the truck, a master gear carried by the opposite wheel, an endless conveyer, a sprocket chain engaging the sprocket wheel and operatively connected with the conveyer for rotating the latter, hangers pivotally mounted on the axle, a brush journaled in the hangers and provided with a pinion adapted to mesh with the master gear, means for raising and lowering the brush, and a lever bearing against the axle and lug, respectively, and having a link connection with the adjacent hanger for moving the pinion into and out of engagement with the master gear. 60 65 70

4. In a sweeper, a wheeled truck including an axle, and provided with an inwardly extending lug a master gear secured to one of the wheels of the truck, a sprocket secured to an opposite wheel, spaced hangers pivotally mounted on the axle and having their pivoted ends provided with elongated slots for the reception of said axle and their opposite ends deflected upwardly, a brush journaled in the hangers and provided with a pinion meshing with the master gear, a crank shaft extending transversely of the truck and provided with an operating handle, a link connection between the crank shaft and the hangers for elevating the latter, an endless conveyer, a sprocket chain engaging the sprocket and connected with the conveyer for rotating the latter, and a lever bearing against the axle and lug, respectively, and having a link connection with the adjacent hanger for moving the pinion into and out of engagement with the master gear. 75 80 85

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses. 90

JOHN E. DAILOR.

Witnesses:

MORITZ SCHOENERBERG,  
HOMER VAN BUSKIRK.