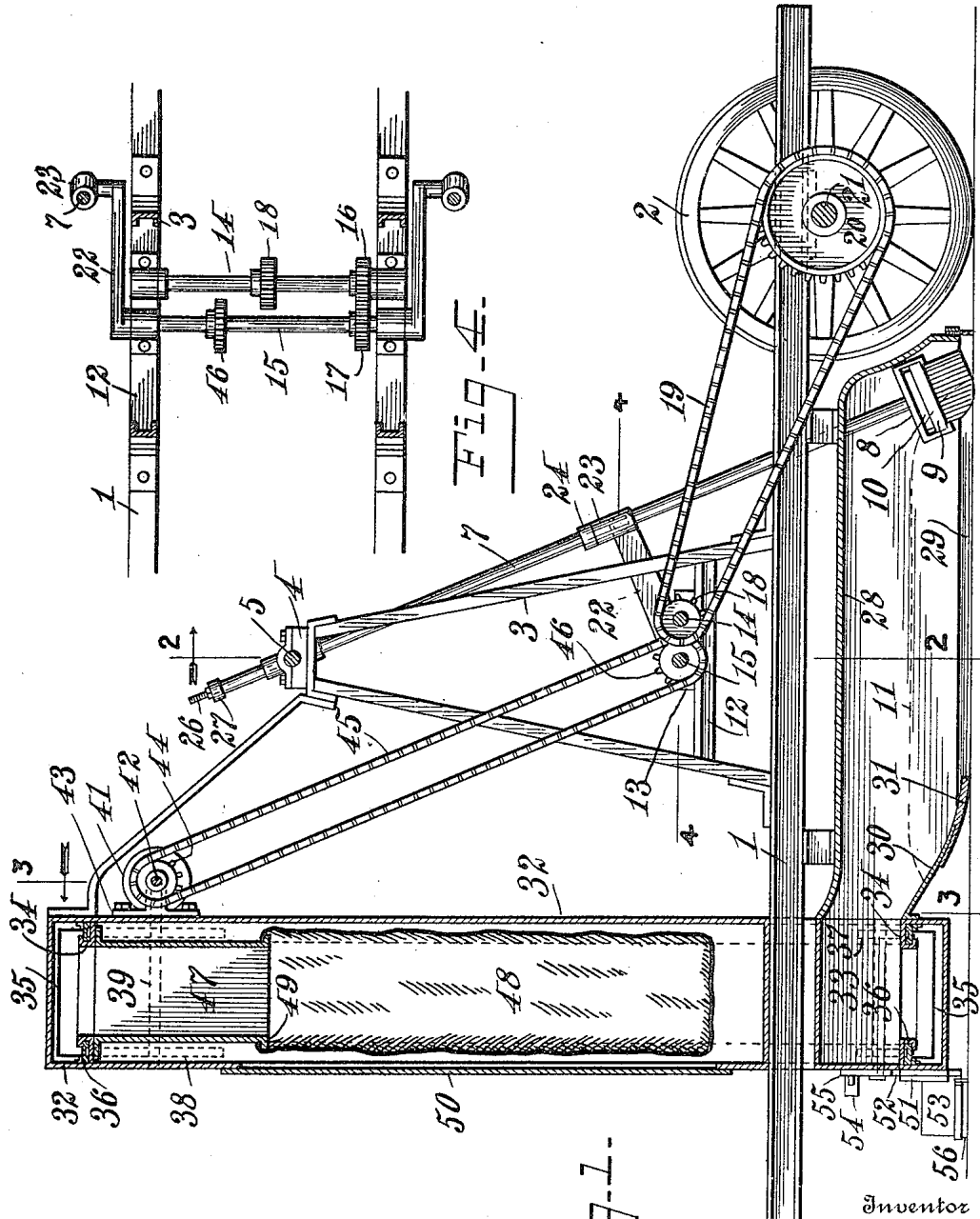


J. A. SCHROEDER.
STREET SWEEPING MACHINE.
APPLICATION FILED JAN. 31, 1916.

1,204,320.

Patented Nov. 7, 1916.
3 SHEETS—SHEET 1.



Witnessed
M. Shibles
M. Galloway

By

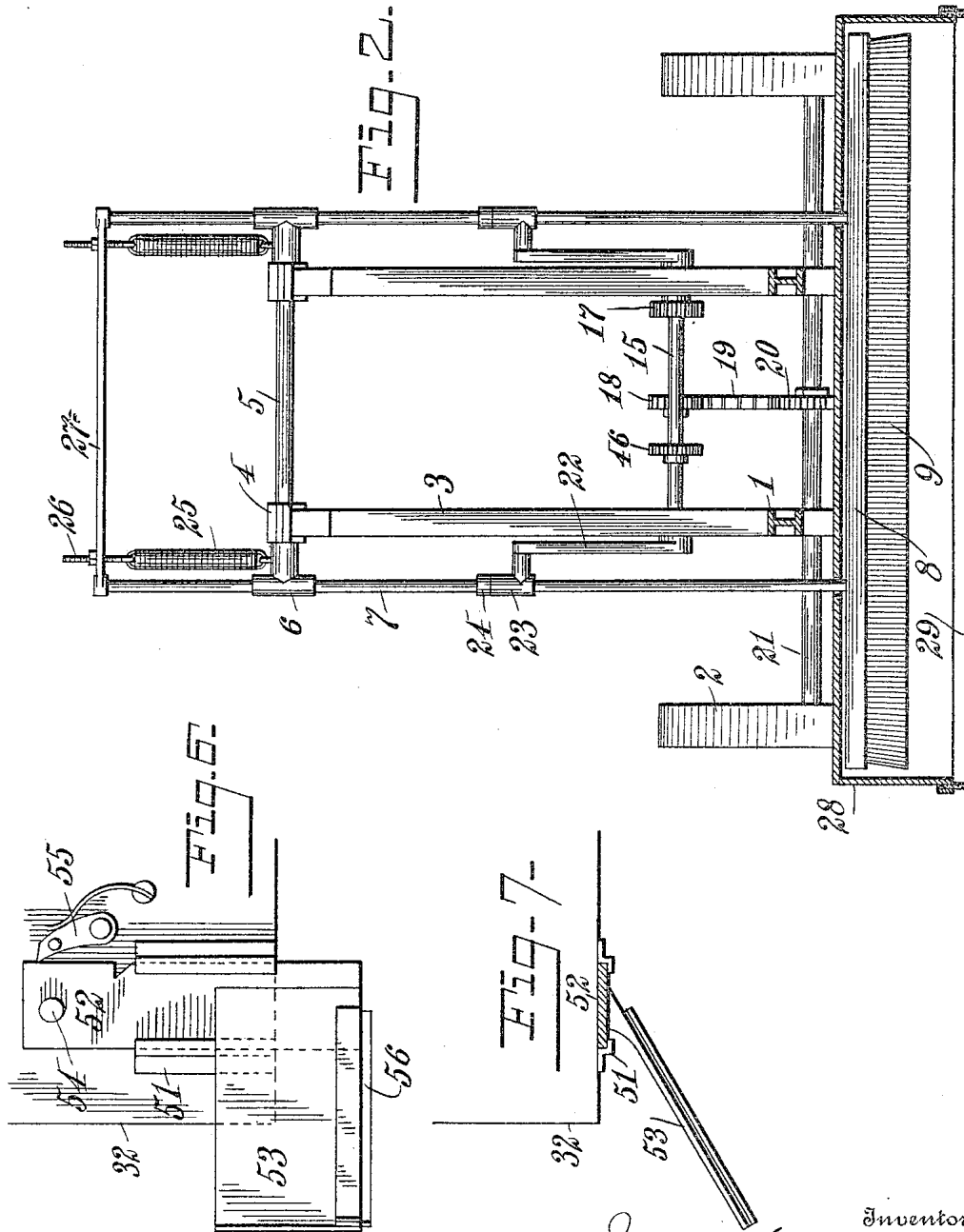
Fig. 1.
Jacob A. Schroeder
his
R. J. McCarty
Attorney

J. A. SCHROEDER.
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3 SHEETS—SHEET 2.



Witnessed
M. Dubler
M. Galloway

By

Inventor
Jacob A. Schroeder
his Attorney
R. J. M. Conry

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3 SHEETS—SHEET 3.

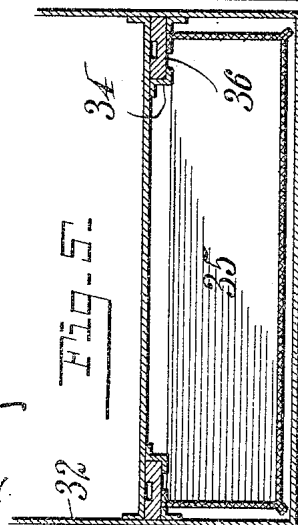
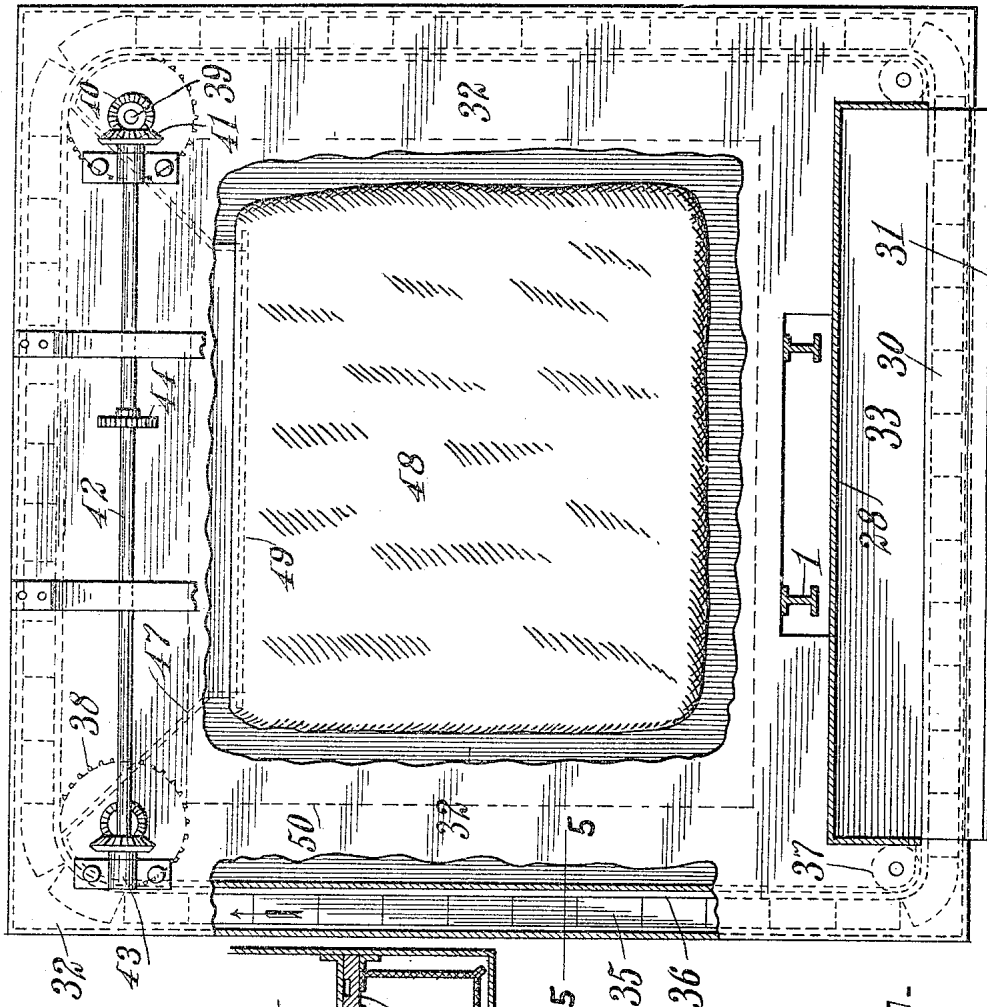


Fig. 5-

Witnesses
M. Sibley
M. Galloway

Inventor
Jacob A. Schroeder
By R. J. McCarly
his Attorney

UNITED STATES PATENT OFFICE.

JACOB A. SCHROEDER, OF PIQUA, OHIO, ASSIGNOR TO MARY SCHROEDER, OF PIQUA, OHIO.

STREET-SWEEPING MACHINE.

1,204,320.

Specification of Letters Patent.

Patented Nov. 7, 1916.

Application filed January 31, 1916. Serial No. 75,221.

To all whom it may concern:

Be it known that I, JACOB A. SCHROEDER, a citizen of the United States, residing at Piqua, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Street-Sweeping Machines; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in street sweeping machines.

The object of the invention is to provide a machine of the above type which requires a comparatively small amount of power for its operation, which effectually prevents the raising of dust and which collects the dirt from the street and deposits the same in suitable bags or holders through the means of which it may be subsequently conveniently disposed of.

To the above ends the machine is comparatively simple in construction and is highly efficient in operation.

Referring to the accompanying drawings, Figure 1 is a longitudinal sectional view of the machine; Fig. 2 is a section approximately on the line 2—2 of Fig. 1 with the brushes shown in an elevated position; Fig. 3 is a section approximately on the line 3—3 of Fig. 1; Fig. 4 is a section approximately on the line 4—4 of Fig. 1; Fig. 5 is a section on the line 5—5 of Fig. 3; and Figs. 6 and 7 are detail views of side scrapers used on the machine.

Throughout the specification and drawings, similar reference characters indicate corresponding parts.

Referring more particularly to the drawings, 1 represents a frame to be provided with front wheels (not shown) and tractors 2. The frame 1 may be part of a motor tractor or the machine as a whole may be mounted on any suitable carriage and drawn and actuated by any suitable means. Mounted on the said frame 1 is a frame 3 provided with bearings 4 in which a rock-shaft 5 is journaled. The shaft 5 is provided on its ends with guides 6 in which rods 7 reciprocate. Mounted on the lower ends of the rods 7 is a frame 8 which receives

brushes 9. The brushes 9 are pressed against the surface of the street by gravity or by the aid of springs 10 which enables the said brushes to accommodate themselves to the unevenness of the street. The path of the brushes is shown by the line 11 in Fig. 1 and such movement is imparted thereto by the following means: The frame 3 is provided with cross members 12 on which are mounted bearings 13 in which shafts 14 and 15 respectively are journaled. The shafts 14 and 15 rotate in unison through the agency of gears 16 and 17 and the shaft 14 is driven, in the present instance, from the tractors 2 by means of a sprocket 18 mounted on said shaft and a chain 19 and a sprocket 20 mounted on the axle 21 of the tractors 2. The outer ends of the shaft 15 are provided with cranks 22 which are connected to sleeves 23 slidably mounted on the rods 7. When the shaft 15 is rotated, the brushes 9 are swung upon the shaft 5 thereby giving the said brushes an oscillating sweeping motion over the pavement or street which operation collects the dust. During the backward or non-sweeping movement of the brushes, the said brushes are elevated by the sleeves 23 striking collars 24 on the rods 7 which gives the brushes the path of movement shown by the line 11. The rods 7, the frame 8 and the brushes 9 are pressed downwardly by springs 25 which are connected at one of their ends to the hubs of the sleeves 6 and at the other of their ends to adjusting screws 26 which project through a yoke 27 attached to the upper ends of the rods 7. The space in which the brushes 9 move is covered with a shield 28 provided with felt or other flexible strips 29 on its lower edge which effectually prevents the raising of dust. The dirt from the street is swept upon an inclined pan 30 provided with a flexible portion 31 and then into a conveyer constructed and operated as follows:—Mounted vertically on the frame 1 is a housing 32 provided with an opening 33 which communicates with the space under the shield 28. The dust or dirt is swept into the housing through this opening where it falls into a plurality of bags or pockets 35. The bags 35 are mounted on belts 36 which travel in guides 34. On the lower run, the belts 36 pass under guide wheels 37 and on their upper run they pass over sprockets 38 by which they are driven. The sprockets 38 are

mounted on shafts 39 journaled in the housing 32 and provided with bevel gears 40. The gears 40 are in mesh with gears 41 mounted on a shaft 42 journaled in bearings 5 43 attached to the housing 32. The shaft 42 is driven from the shaft 15 through the agency of a sprocket 44 mounted on said shaft, a chain 45 and a sprocket 46 mounted on the shaft 15.

10 The bags 35 and the belts 36 travel in the direction of the arrow shown in Fig. 3, and when said bags reach their upper run the dirt therein is deposited into a funnel 47, and thence into a bag 48. The lower edge of 15 the funnel 47 is provided with a flange 49 upon which the bag 48 is supported. The bag 48 may be attached to and held on the funnel by any well known means such as a draw-string (not shown) or the like. The 20 bag 48 is mounted within the housing 32, which prevents the escape of dust, and access may be had thereto through a door 50. To permit the dust to be collected adjacent to the curb of the street, the following side 25 scrapers are provided, which are shown in detail in Figs. 6 and 7.

Mounted on the front lower corners of the housing 32 are vertical guides 51 in which slides 52 are mounted. The slides 52 are

provided with deflectors 53 having flexible 30 scraping edges 56. The deflectors 53 reach beyond the swath of the brushes 9 and scrape the dust and dirt into the path of the brushes. The deflectors 53 may be elevated by pins 54 and held in such elevated position 35 by latches 55.

Having described my invention, I claim—

A machine of the character specified, comprising a frame supported on wheels, an upright casing mounted upon and extending 40 below said frame, a horizontal casing mounted on said frame and therebelow said horizontal casing having its lower side open and a portion of said lower side extended upwardly and joining the lower portion of 45 said upright casing below the frame, a brush in said horizontal casing, means for imparting a lower forward or sweeping movement to said brush and an upper rearward or non-sweeping movement thereto within said 50 horizontal casing, said means comprising the rods 7 connected to said brush and driven from shaft 15 provided with cranks 22 and sleeves 23 connected with said cranks 22 and movable on said rods 7.

In testimony whereof I affix my signature. 55

JACOB A. SCHROEDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."