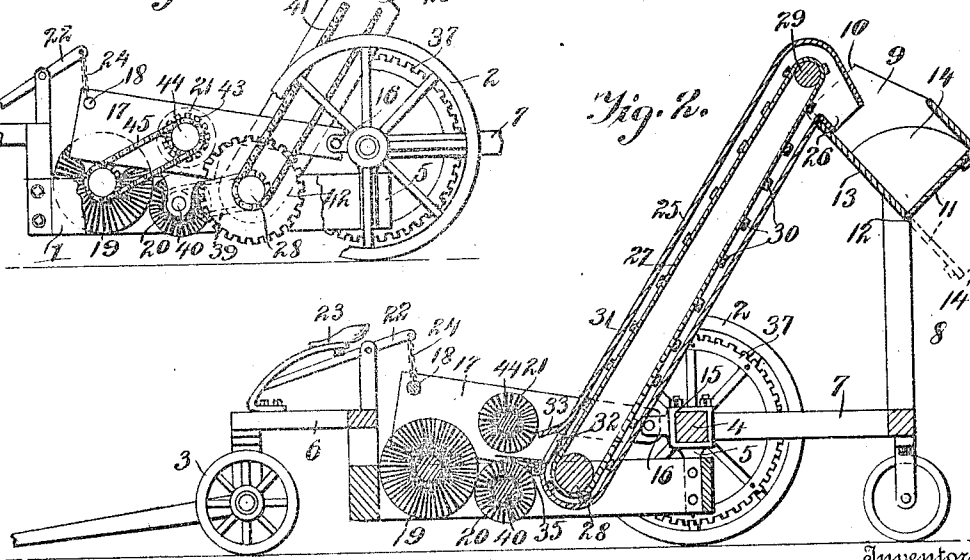
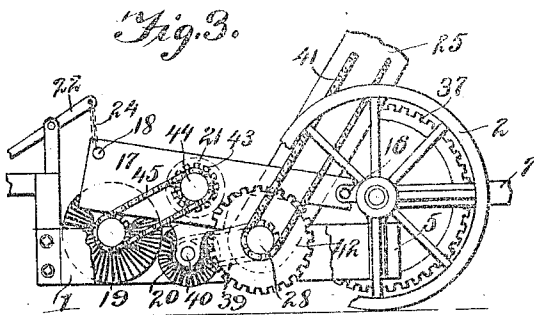
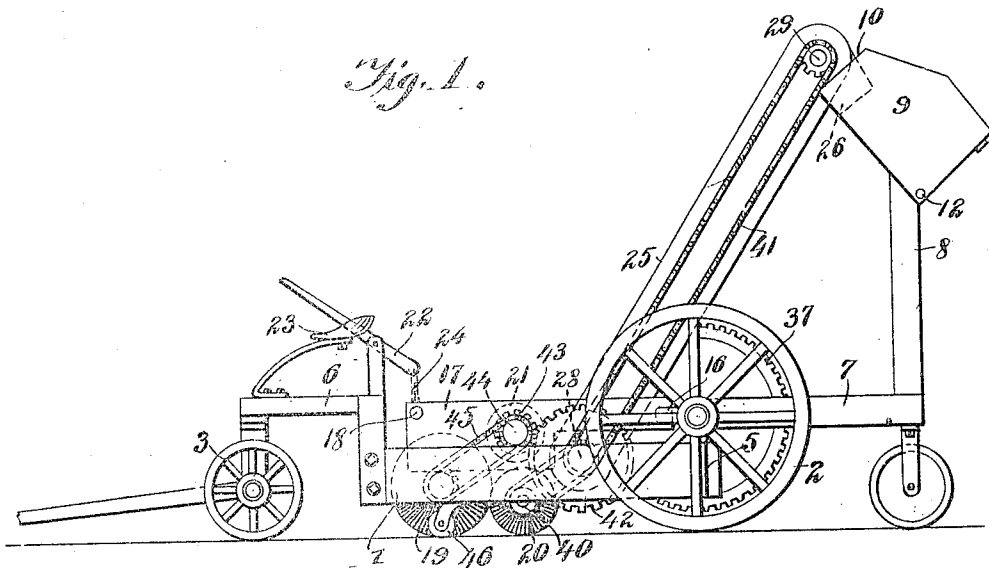


H. H. BROOKS.
STREET SWEEPER.
APPLICATION FILED JUNE 28, 1910.

Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.

971,661.



Inventor

Hiram H. Brooks.

Witnesses

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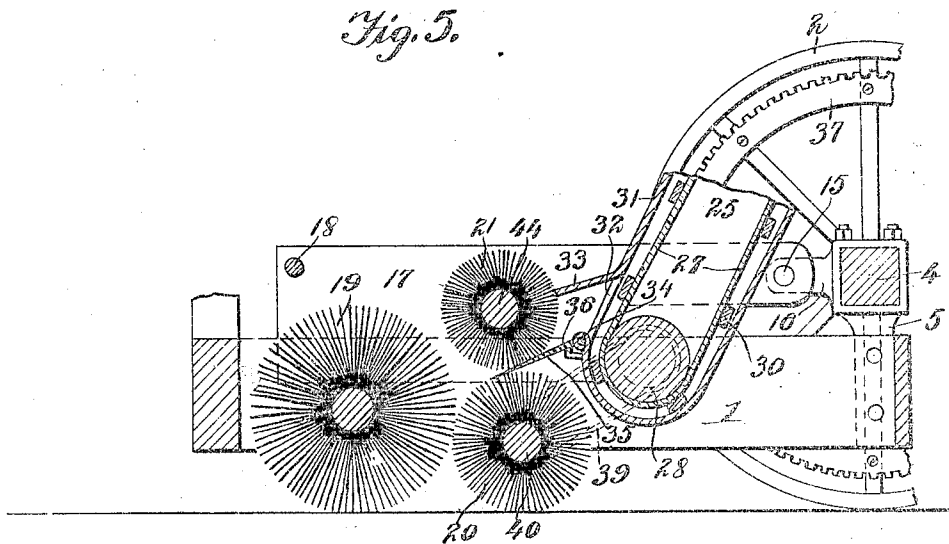
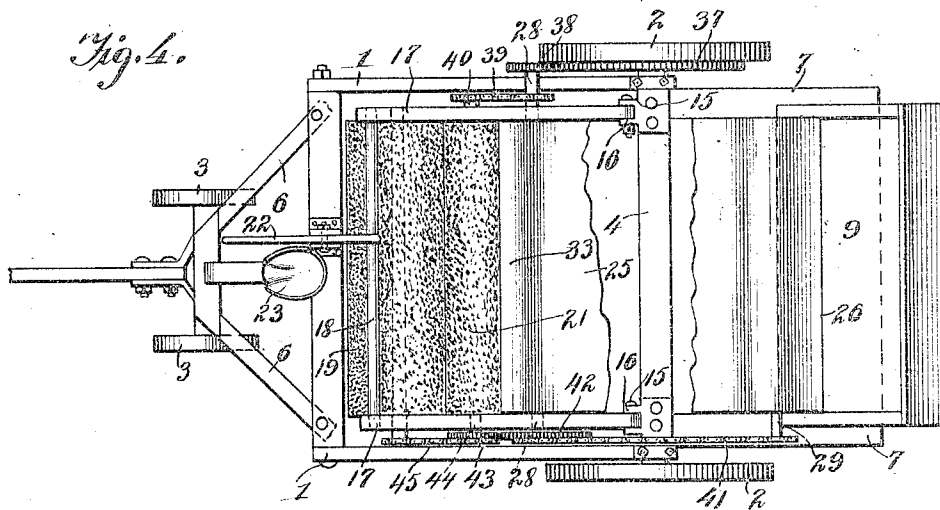
Attorney

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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

HIRAM HENRY BROOKS, OF NASHVILLE, TENNESSEE.

STREET-SWEEPER.

971,661.

Specification of Letters Patent.

Patented Oct. 4, 1910.

Application filed June 22, 1910. Serial No. 569,317.

To all whom it may concern:

Be it known that I, HIRAM H. BROOKS, a citizen of the United States, residing at Nashville, county of Davidson, and State of Tennessee, have invented certain new and useful Improvements in Street-Sweepers, of which the following is a specification.

My invention relates to street sweepers and particularly to that class of street sweepers having receptacles for the trash and dirt and a conveyer for carrying the dirt from the brushes to the receptacle.

The object of my invention is to provide an improved street sweeper of the class mentioned in which the brushes may be raised out of contact with the ground when desired and some of them automatically disconnected from the driving gear at the same time.

A further object of my invention is to provide a sweeper as mentioned with improved means for raising and depositing the dirt and trash onto the conveyer.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a street sweeper and the various details of construction and combinations of parts all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a side elevation of a street sweeper embodying my invention in its preferred form, Fig. 2 is a vertical longitudinal section through the same, the brushes being shown in elevated position, Fig. 3 is a detail side elevation with the brushes in raised position, and showing the forward and upper brushes disconnected from the running gear, Fig. 4 is a plan view of the device, and Fig. 5 is a detail longitudinal section on an enlarged scale illustrating the parts in operative position.

In carrying out my invention I provide a main frame mounted upon wheels and an auxiliary frame hingedly mounted thereon and carrying the brushes. A receptacle is provided and supported above the frame at a sufficient height for a cart or wagon to pass under the same to receive the dirt therefrom, and a conveyer is arranged to carry the dirt from the brushes to the receptacle.

Suitable gearing is provided for driving the brushes and conveyer from one of the wheels of the device and provision is made for raising the auxiliary frame and brushes when desired and for throwing the brushes out of gear as said frame and brushes are raised.

Referring now to the drawings 1 indicates the main frame of the device which is mounted upon the main or rear wheels 2 and front wheels 3, the latter being pivotally secured to the frame in any ordinary preferred manner. The frame 1 is arranged mainly in a plane below the main axle 4 and is supported by hangers 5 depending therefrom. The forward part of the frame 1 is raised or arched as at 6 above the front wheels to permit turning of the same.

Extending rearwardly from the axle 4 are frame members 7 from which rise standards 8 at the upper end of which is arranged a receptacle 9 for the dirt and trash. The receptacle 9 is arranged at an inclination as shown, the upper forward end 10 thereof being open for a purpose hereinafter described and the lower rear end is provided with a hinged closure 11 to permit dumping of the dirt when desired. The closure 11 is hinged at 12 to the bottom 13 of the receptacle and is provided with side flanges 14 which together with the closure proper forms a chute for the dirt to direct the same into a wagon or cart arranged below the same.

Hingedly mounted as at 15, preferably to lugs 16, projecting from the axle 4 is an auxiliary frame comprising a pair of forwardly extending side members 17 connected at their forward ends by a transverse member 18. Rotatably mounted in the auxiliary frame are three brushes 19, 20 and 21 respectively, the brushes 19 and 20 being adapted to contact and sweep the street and the brush 21 being arranged above the brush 20 as will more fully be described hereinafter. It should be noted that the forward brush 19 is of larger diameter than the brushes 20 and 21, and that the peripheries of the brushes 19 and 20 contact whereas a space is maintained between the brush 20 and the super-imposed brush 21. A lever 22 is arranged adjacent the driver's seat 23 on the main frame and is connected by a flexible member 24 to the cross-member 13 of the auxiliary frame. It is obvious that the

driver may raise or lower the auxiliary frame 17 together with its brushes whenever desired, by means of the lever 22.

An inclined conveyer casing 25 is arranged on the main frame and extends from adjacent the brushes 20 and 21 to the forward open end of the receptacle 9 into which it discharges through a spout 26.

27 indicates an endless conveyer arranged in the casing upon the conveyer shafts 28 and 29, and provided with transverse members 30 to facilitate elevating the dirt. The front wall 31 of the casing 25 is provided with an opening 32 directly behind the brush 21 and a flange 33 extends outwardly from the upper edge of said opening to the brush to prevent the dirt and dust from being thrown above the mouth of the opening. Pivotaly mounted as at 34 to the lower edge of the opening 32 is a lip or plate 35 which extends between the brushes 20 and 21, terminating above the brush 20 and substantially in contact therewith.

36 indicates a lug forming a stop to limit the downward movement of the lip. The brushes 19 and 20 coöperate to raise the dirt and deposit the same on the lip 35 and the brush 31, above said lip sweeps the dirt thus deposited through the opening 32 onto the conveyer 27.

Suitable means are provided for driving the brushes and the conveyer. To this end a large gear 37 is fixed to one of the wheels 2 and meshes with a gear 38 fixed to the end of the conveyer shaft 28. The shaft 28 is also connected by sprocket gearing 39 to the shaft 40 of the brush 20 and by sprocket gearing 41 to the upper conveyer shaft 29. Secured to the opposite end of the shaft 28 from the gear 38 is a larger gear 42 which meshes with a gear 43 on the shaft 44 of the brush 21. The brushes 19 and 21 are connected by sprocket gearing 45. By this arrangement of gearing the brushes 19 and 20 are driven in opposite directions, the movement of their contacting faces being upward to raise and deposit the dirt on the member 35, and the movement of the brush 21 is such as to sweep the dirt from said member on to the conveyer. The pivot point 15 of the auxiliary frame and the shaft 44 of the brush 21 are arranged above the shaft 28 so that as the auxiliary frame is raised the gear 43 will be disengaged from the gear 42 thereby stopping the brushes 19 and 21. It should also be noted in this connection that the member 35 is hinged to permit free movement of the auxiliary frame and to maintain the same in proper relation to the brushes.

If desired rollers 46 may be provided for the auxiliary frame to support the forward end thereof.

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

1. In a street sweeper a main frame mounted upon wheels, a conveyer, an auxiliary frame, means for raising and lowering said auxiliary frame, a member adjacent the lower end of said conveyer, a pair of oppositely rotating brushes for raising and depositing the dirt on said member and a brush for sweeping the dirt from said member onto said conveyer, substantially as described.

2. In a street sweeper, a main frame mounted upon wheels, an auxiliary frame hingedly mounted thereon, means for raising and lowering said auxiliary frame, a conveyer, a pair of oppositely rotating street engaging brushes arranged one in front of the other and a third brush arranged above the rear brush of said pair, all of said brushes being mounted in said auxiliary frame and a hinged member arranged adjacent the lower end of said conveyer and projecting between the upper and lower rear brushes, substantially as described.

3. In a street sweeper a main frame mounted upon wheels, a conveyer, a conveyer casing having an opening in the front wall thereof adjacent its lower end, a pair of oppositely rotating street engaging brushes arranged one in front of the other and a third brush arranged above the rear brush of said pair, a lip projecting from the lower edge of said opening and extending between the upper and lower rear brushes and a flange extending from the upper edge of said opening to the upper brush, substantially as described.

4. In a street sweeper a main frame mounted upon wheels, an auxiliary frame hingedly mounted therein, a pair of oppositely rotating street engaging brushes mounted in said auxiliary frame, a third brush mounted in said auxiliary frame above the rear brush of said pair, a conveyer, a hingedly mounted member adjacent said conveyer and projecting between the upper and lower rear brushes, gearing connecting the wheel of the main frame with said brushes and conveyer for driving the latter and means for raising and lowering said auxiliary frame and disconnecting the gearing to said third brush and the forward street engaging brush substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HIRAM HENRY BROOKS.

Witnesses:

J. W. BOSTICK,
MAGGIE MITCHELL.