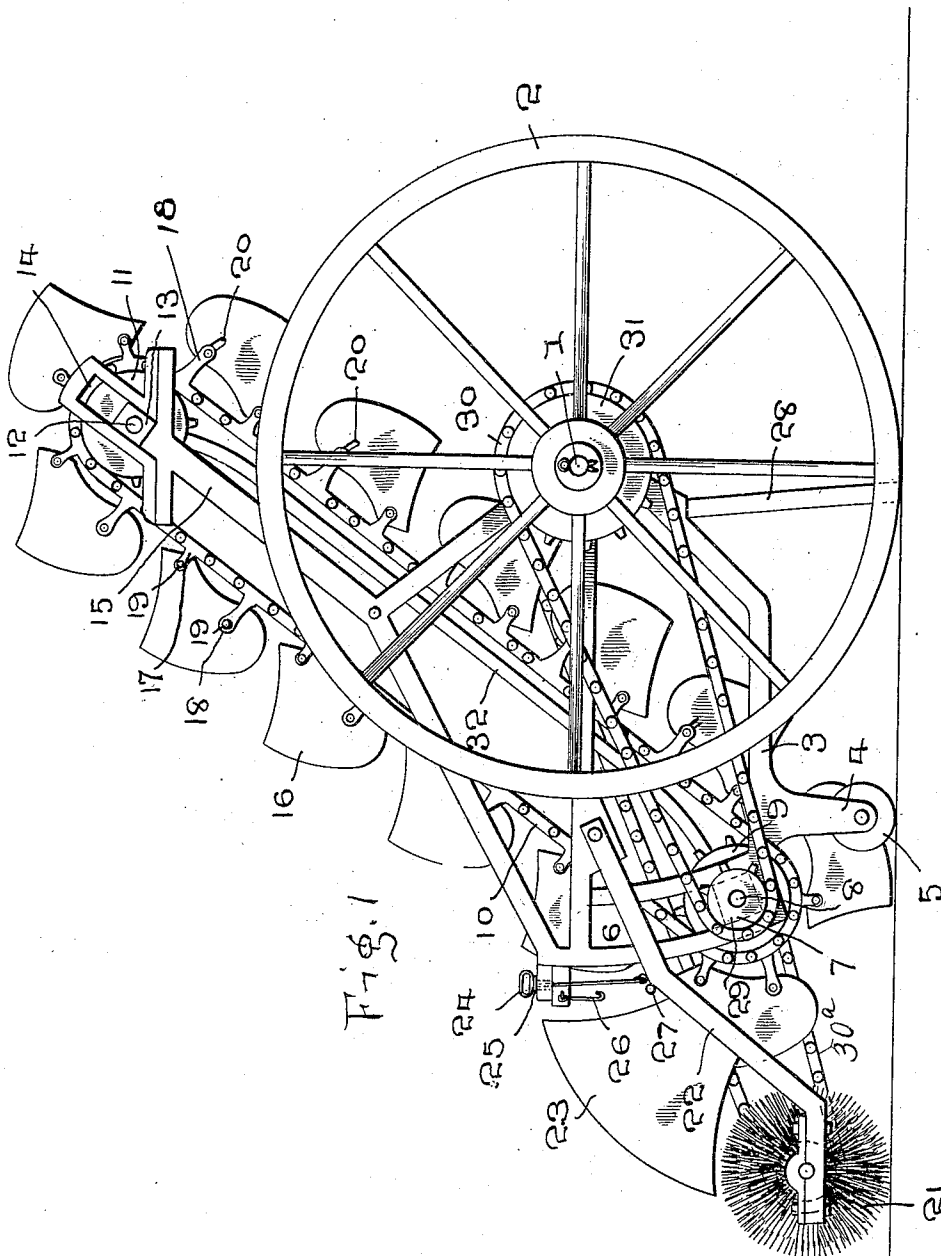


M. F. ADKINS.
STREET SWEEPER.
APPLICATION FILED DEC. 15, 1908.

938,361.

Patented Oct. 26, 1909.
2 SHEETS—SHEET 1.



WITNESSES:
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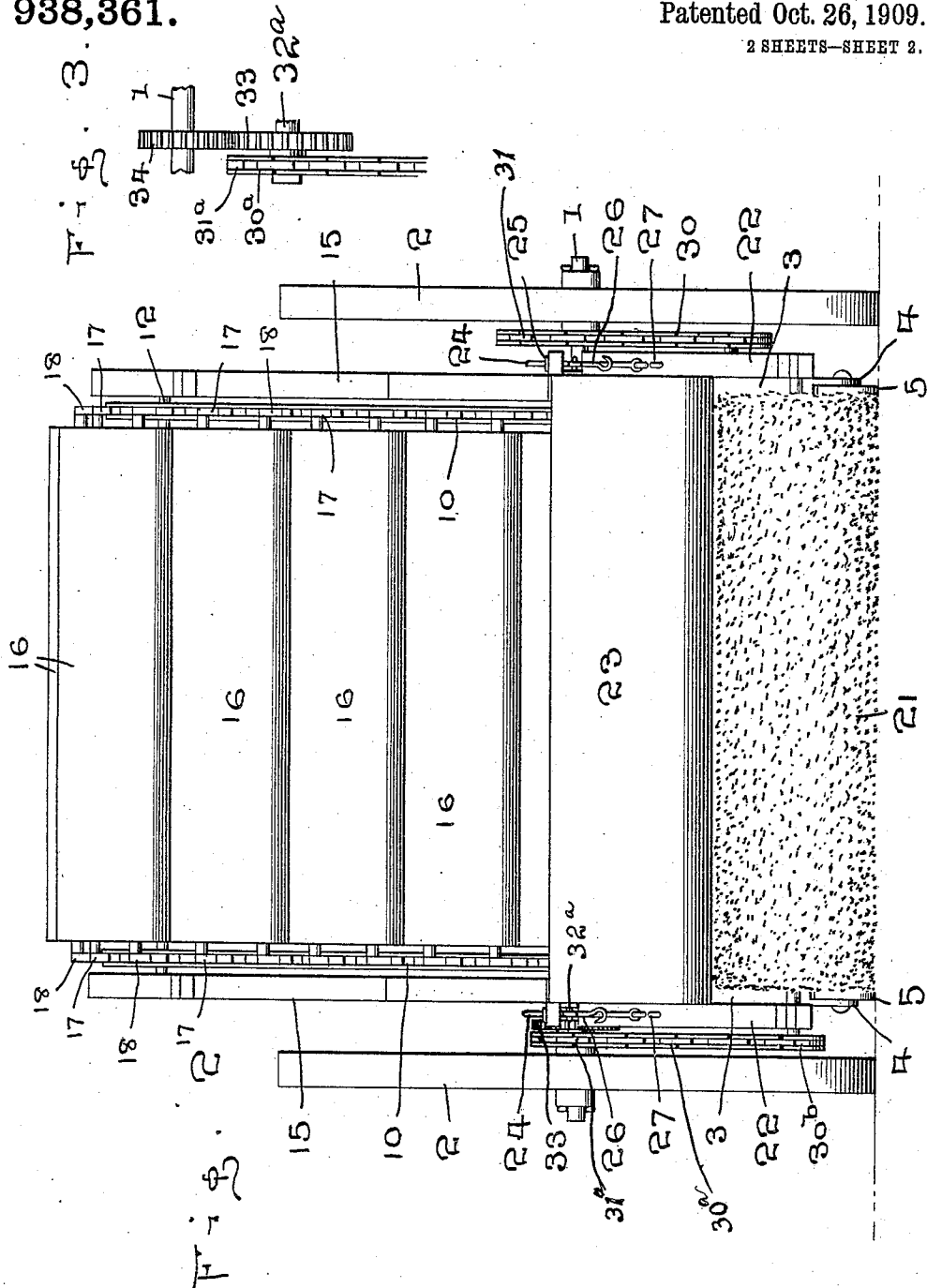
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UNITED STATES PATENT OFFICE.

MARIAN FOSTER ADKINS, OF RANGER, WEST VIRGINIA.

STREET-SWEEPER.

938,361.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed December 15, 1908. Serial No. 467,695.

To all whom it may concern:

Be it known that I, MARIAN FOSTER ADKINS, a citizen of the United States, residing at Ranger, in the county of Lincoln and State of West Virginia, have invented certain new and useful Improvements in Street-Sweepers; and I do hereby 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.

My invention relates to new and useful improvements in street sweepers and my object is to provide a device of this class which may be readily attached to any suitable form of vehicle.

A further object is to provide means for preventing breakage or mutilation of said receptacles when in use, also to aid in removing or jarring out the contents of the elevating receptacles.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings which are made a part of this application, Figure 1 is a side elevation of the invention, Fig. 2 is a rear elevation thereof, and, Fig. 3 is a broken detail plan view showing parts of the gearing for actuating the sweeper in the opposite direction to that of the supporting wheels.

Referring to the drawings, in which similar reference characters designate corresponding parts throughout the several views, 1 indicates an axle, upon the ends of which are suitably mounted wheels 2.

Mounted upon the axle 1 and extending rearwardly therefrom are frames 3, said frames having pendent extensions 4, applied to the lower ends of which are casters 5, said casters being adapted to travel over the street surface and support the rear portion of the frame 3.

The rear portions of the frames 3 are provided with slots 6, in which are slidably disposed square blocks 7, said blocks forming bearings for a shaft 8 and in which said shaft rotates. Mounted on the shaft 8 are sprockets 9, around which take sprocket chains 10, the upper end of said chains likewise passing around sprockets 11 carried on a shaft 12. The shaft 12 is rotatably mounted in bearings 13, which bearings are in turn mounted in ways in the upwardly extending portion 15 of the frames 3, said upwardly

extending portions being inclined forwardly and upwardly to such an extent as to extend the shaft 12 a distance forwardly of the axle 1, whereby the contents of the receptacles 16 will be readily deposited in the body of the vehicle (not shown), to which the sweeper is attached, the inclination of the upwardly extending portion 15 being such as to hold the receptacles 16 in a substantially upright position until they have reached the upper end of the extension 15, but when the receptacles have reached this point, the openings therein are presented downwardly, thereby depositing the contents of the receptacles into the vehicle provided for receiving the same.

The receptacles or buckets 16 are secured to the sprocket chains 10 by extending ears 17 and 18 upwardly from certain links forming the chains, there being a pair of ears for each end of each receptacle, said ears having inwardly directed pins 19 which engage the ends of the receptacles and in order to assist in dumping the contents of the receptacles after they have reached the upper end of the extension 15, the pins in the ears 18 engage slots 20 formed in the end walls of the receptacles and as soon as the buckets have reached the upper end of the device, the closed portion thereof will swing outwardly to the full extent of the slots 20, the contact of the pins with the ends of the slots serving to jar the buckets and remove the contents thereof.

The receptacles 16 in their travel from end to end of the frame upon which they are mounted, are brought to a point adjacent the earth's surface, or street surface, and the open end of the receptacles presented toward the rear of the machine and in order to deposit the refuse in the receptacles, a sweeper or brush 21 is rotatably mounted in the lower ends of bars 22, said bars being so arranged as to dispose the brush immediately in the rear of the path of the receptacles and by rotating the brush reversely to the travel of the machine, the refuse on the street surface will be swept forwardly and deposited in the receptacles as they travel from end to end of their supporting frame.

The upper ends of the bars 22 are pivotally secured to parts of the frame 3, whereby the brush 21 may readily swing upwardly or downwardly when an unevenness is encountered in the street surface and to pre-

vent the brush from unduly scattering the refuse, a shield 23 is mounted on the bars 22 and over the sweeper 21.

When the machine is being moved from place to place, the sweeper 21 is swung upwardly by means of rods 24, which rods extend downwardly through portions of the frame 3 and have their lower ends secured to the bar 22, while the upper ends of said rods are provided with hand-holds 25, whereby power may be readily applied to raise the sweeper and after the sweeper has been elevated, it is retained in its elevated position by securing hooks 26 to eyes 27 on the bars 22, said hooks being carried by parts of the frame 3. The frames 3 are held against accidentally tilting forwardly after the machine has been detached from the vehicle by providing a standard 28, as a support therefor under the condition suggested. Motion is imparted to the shaft 8 by attaching thereto a sprocket 29, around which passes a chain 30, said chain also passing around a sprocket 31 attached to the wheel 2. As considerable weight is directed on the frame 3 and upwardly extending portion 15, I have deemed it best to provide suitable bracing means, which consist of brace bars 32, the upper and lower ends of which are mounted on the shafts 12 and 8, respectively, maintaining the shafts a uniform distance apart and in this manner it will be seen that should the buckets 16 strike an obstruction and cause the blocks 7 to ascend in the slots 6, the bearings 13 will likewise be moved a corresponding distance in the ways 14, thereby maintaining a uniform tension of the chains 10.

In operation, the device is temporarily secured in any preferred manner to the rear end of a vehicle, and the standard 28 is removed and the sweeper 21 lowered into engagement with the street surface, when the vehicle is moved forwardly, thereby imparting motion to the chains 10 and buckets carried thereby and by providing any suitable means for rotating the sweeper reversely to the forward movement of the vehicle, the

refuse gathered by the sweeper will be deposited in the buckets and carried into the vehicle body, said sweeper rotating means may consist of an endless belt 30^a having sprocket wheel engagement as at 30^b with the sweeper axle, and a sprocket wheel 31^a turning loosely upon a stub shaft 32^a, (in practice) fixed to one of the frames 3, said sprocket-wheel having fixed thereto a spur gear pinion 33 with which meshes and which is driven by a like pinion 34 fixed on the driving shaft 1. As soon as the vehicle body has become filled, the sweeping device is disengaged from the vehicle and the standard 28 introduced into position, thereby insuring against accidental tilting of the frame of the sweeper.

From the foregoing description it will be clearly apparent that the sweeping device can be manufactured as a complete article and sold to the trade in this manner, as said sweeping device can be attached to any suitable form of vehicle.

I claim:

A device of the character described, comprising an axle, supporting wheels therefor, upright frames mounted on said axle, said frames having upstanding members at their lower ends provided with slots, said frames also provided with longitudinally arranged slots at their upper ends, shafts carrying sprocket wheels, and having their bearings arranged in said slots, endless chains on said sprocket wheels and provided with lateral lugs, elevating receptacles pivotally mounted in said lugs, and having lateral slots, opposite lugs on said chains having pins adapted to engage said slots, a sweeper in the rear of said frames and means to actuate said sweeper and one of said shafts.

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

MARIAN FOSTER ADKINS.

Witnesses:

ALPHA WEBB,
ALBERT W. ADKINS.