

UNITED STATES PATENT OFFICE.

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STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 550,828, dated December 3, 1895.

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To all whom it may concern:

Be it known that I, DANIEL H. HOLLINGSWORTH, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Street-Sweepers, of which the following is a specification.

The object of my invention is to provide a street-sweeper capable of working in conjunction with an ordinary dirt-cart, whereby the sweepings of the street are automatically raised and deposited in the said dirt-cart.

In the accompanying drawings, Figure 1 is a longitudinal section of a street-sweeping apparatus constructed according to my invention, and showing a cart attached thereto. Fig. 2 is a sectional plan taken at the plane of the line xx , Fig. 1; and Fig. 3 is a top view of a guide-plate employed in the machine.

a designates a casing supported upon a rotary axle b of a pair of wheels $b^1 b^2$ and upon the axle c of a pair of wheels $c^1 c^2$. The said casing may be of any suitable material and construction. It is provided with a receptacle a^1 for the sweepings of the broom and an extension a^2 , adapted in height and length to admit of an ordinary dirt-cart being pushed beneath it. The axle c is mounted in the arms $c^3 c^4$ of a cross-bar c^5 , which has a swiveling connection by means of an ordinary fifth-wheel c^6 with a bar c^7 , extending forward from the casing and rigidly secured thereto by angle and brace bars c^8 .

d is an ordinary broom secured on a shaft d^1 , the latter being carried in arms $d^2 d^3$, whose ends are loosely mounted on the axle b , journaled in the sides of the casing.

$d^4 d^5$ are links connecting the extremities of the arms $d^2 d^3$ and the ends of a cross-bar d^6 , the latter forming a part of a T-shaped lever d^7 , journaled to rock in a bearing d^8 . This lever is provided with a handle d^9 , arranged within reach of the driver and capable of being secured in a hook d^{10} when the broom is not in use.

Motion is imparted to the broom by means of a sprocket-chain e , passing around a wheel e^1 , secured on the shaft d^1 , and driven by a sprocket-wheel e^2 , secured to a shaft e^3 , the latter being journaled in the sides of the casing. The chain e extends around a wheel e^4 , secured to a shaft f , mounted in bearings secured to the

sides of the casing. This shaft has rigidly secured thereon at each side of the machine a sprocket-wheel f^1 , which imparts motion to a pair of chains $f^2 f^4$, having buckets f^5 rigidly secured thereto. The chains are led over guide-wheels f^6 , arranged at the end of the extension a^2 , after passing over guide-wheels f^7 . From the wheels f^7 the chains are led to wheels f^8 , around which the buckets are carried to receive the dirt deposited in the receptacle a^1 . The buckets are then elevated and passed along the extension a^2 to the wheels f^6 , and in passing around which the contents of the buckets are free to fall and pass through an opening a^3 in the casing into the dirt-cart.

Motion is imparted to the shaft e^2 by a gear-wheel g , secured on the axle b , and engaging a gear-wheel g^1 , loosely mounted on the shaft e^2 . The gear-wheel g^1 has on one side clutch-teeth g^3 to engage with corresponding teeth of a clutch-collar g^4 , fitted to slide on a spline attached to the shaft e^2 .

h is a lever fulcrumed to a bracket h^1 and having a bifurcated end to engage in an annular groove g^6 around the collar g^4 . The lever h extends diagonally upward to a position within reach of the driver, who can thereby disconnect the moving parts within the casing from the axle when desired.

The dirt from the broom is carried against and up a movable guide-plate i , which is mounted to swing on a bar i^1 , supported in the sides of the casing a . The plate i is provided with perpendicular side portions i^2 , which converge toward each other from the rear of the apparatus in order to compress the bristles of the brush at its two ends and so prevent the tendency of the dirt to pass to one side instead of against the guide-plate and from thence into the receptacle a^1 . By this means the broom leaves no ridges of dirt sidewise of it as it passes along.

$i^4 i^5$ are chains connecting the free ends of the guide i to the arms $d^2 d^3$, whereby the plate i partakes of the upward and downward movements of the broom.

The sweeping apparatus is connected to the dirt-cart, to be drawn along a street therewith by any suitable means. As here shown this is effected by chains j , arranged one on each side of the cart, and which are attached to sta-

ples or standards j' , secured to the ends of the cross-bar. The opposite ends of the chains may be passed through staples j^2 , secured to the sides of the cart and hooked to one of the 5 links composing the chain. The wheels c' c^2 are so proportioned in diameter and distance apart as to admit of the wheels of the cart passing freely outside of the same and with sufficient clearance to enable the cart to turn 10 to some extent around the same.

I claim—

A street sweeper comprising a casing, a broom, means for revolving the broom and means for collecting the sweepings from the

broom and depositing them in a cart, a bar pro- 15 jecting from said casing and secured to a fifth wheel mounted on a truck, staples projecting from and secured to the cross-bar of the truck, and means comprising chains attached to the staples and adapted to be secured to the floor 20 of the dirt cart, whereby the cart is secured to the truck in such a manner that the cart and truck wheels in turning describe parallel arcs.

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Witnesses:

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