J. V. ALLEN. STREET SWEEPER.

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United States Patent Office.

JAMES V. ALLEN, OF ONTARIO, NEW YORK.

STREET-SWEEPER.

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To all whom it may concern:

Be it known that I, James V. Allen, a citizen of the United States, residing at Ontario, in the county of Wayne and State of New York, have invented a new and useful Street-Sweeper, of which the following is a specification.

This invention relates to improvements in street-sweepers; and the object is to provide to a simple and inexpensive construction of hand-sweeper which is effective in operation and which is practically dust-proof, so that the sweeping is accomplished with little or no scattering of dust.

With the above object in view the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claim, and clearly illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of my improved sweeper. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a rear elevation with the housing for the brush broken away, and Fig. 4 is a detail view of the gear-

ing for the revolving brush. Referring now more particularly to the accompanying drawings, A designates a frame, upon the under side of which a transversely-30 extending axle B is mounted, said axle having at its respective ends ground-wheels C. The frame is surrounded by a casing D, which depends therefrom between the groundwheels. Said casing is formed at its front 35 end with an opening extending down to the bottom wall thereof, and through this opening the removable pan E is inserted in or removed from the casing, the same resting on the bottom wall thereof. Said pan at its in-40 ner end is open and extends nearly to the rear open end of the casing. As will be seen from the drawings, the axle extends transversely through the casing.

Secured to the rear end of the frame and depending therefrom are the arms F, which at their lower ends are curved outwardly laterally of the casing. These arms at their upper ends are slotted to receive bolts and securing-nuts, so that they may be adjusted to vertically and secured in their adjustment. The lower ends of the arms support the shaft G of a rotary brush H, which brush extends

transversely of the casing and across the open rear end thereof. By curving the lower ends of the arms outwardly from the sides of 55 the casing a brush of sufficient length to extend at its ends in line with the ground-wheel may be supported thereby, so that said brush will sweep close to the curbing of the street, which would not be the case did the ground- 60 wheel project farther from the sides of the casing than the ends of the brush.

One end of the brush-shaft projects from the arm in which it is mounted and carries a gear I fixed therein, while loose on said pro- 65 jecting end of the shaft is a wheel J, having a rim K, provided with internal gear-teeth L and external sprocket-teeth M. Mounted on a short shaft supported by the depending arm is a pinion N, meshing with the internal gear 70 of wheel J and with the gear I. Secured upon the axle is a sprocket-wheel O, and around this sprocket and the sprocket-teeth on wheel J a sprocket-chain P passes, so that motion is communicated to wheel J and from this wheel 75 to gear I through the medium of pinion N and the brush caused to revolve in the proper direction—that is, toward the open end of the casing, so as to sweep the dirt thereinto.

A housing is provided for the brush, consisting of the wall Q, which extends over the upper and rear portions of the brush, the wall R, extending beneath the brush, at the forward portion thereof, said wall being attached to the bottom wall of the casing and extending 85 upwardly at an inclination over the edge of the removable pan, so as to conduct the dirt thereto, and the end walls S. Thus the brush is entirely incased excepting at its under side, where it engages the ground.

The machine is provided with an upwardly and rearwardly extending handle T, projecting beyond the brush, so that the device may be readily operated to sweep the street.

The sweepings may be quickly and readily 95 removed from the casing by withdrawing the removable pan therefrom.

From the above description it will be seen that I have produced a very simple and inexpensive construction of hand-sweeper which noo may be conveniently operated to effect the sweeping and from which the sweepings may be quickly removed, the machine being capable of sweeping close to the curbing of the

street, and so constructed as to prevent scattering of dust during the sweeping operation. Having thus fully described my invention,

what I claim as new, and desire to secure by 5 Letters Patent of the United States, is—

A street - sweeper comprising groundwheels, a casing supported between said wheels and having its rear end open and its forward end formed with an opening, a pan to in said casing upon the bottom wall thereof and movable in and out through said opening in the forward end, arms adjustably secured to the casing at its rear end and flared outward from the sides thereof, a brush posi-15 tioned at said open end and mounted in said arms, and having its ends projecting to a

point in line with the outer sides of the ground-wheels, a housing arranged at the rear end of the casing and entirely incasing said brush excepting at its under side, said hous- 20 ing having a lower wall arranged forward of the brush and inclined upwardly and having its upper end extending over the bottom wall of the removable pan when the same is in position in the casing, and means for imparting 25 motion to said brush by the rotation of the ground-wheels, substantially as described.

JAMES V. ALLEN. [L. s.]

Witnesses:

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