

O. W. KELLOGG.
Street-Sweepers.

No. 136,438.

Patented March 4, 1873.

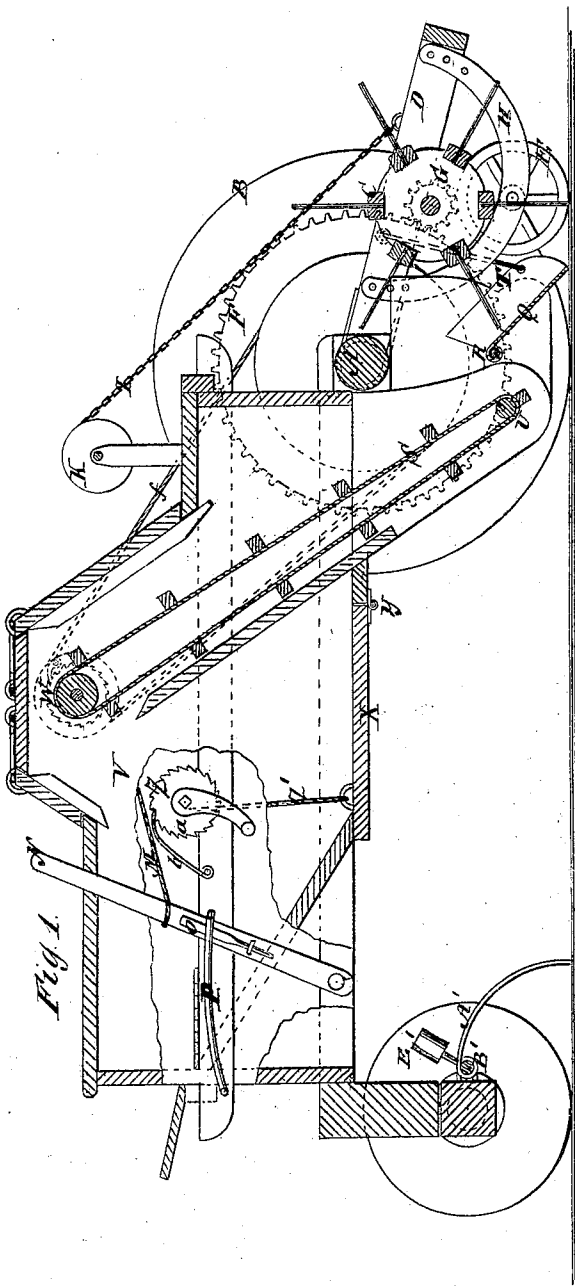


Fig. 1.

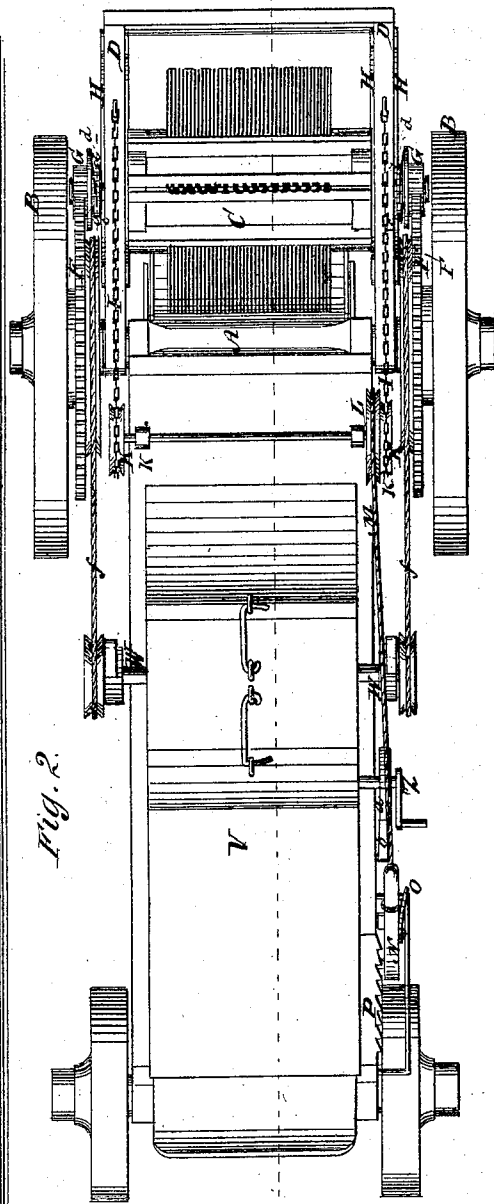


Fig. 2.

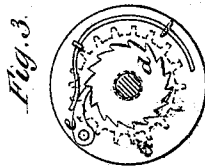


Fig. 3.

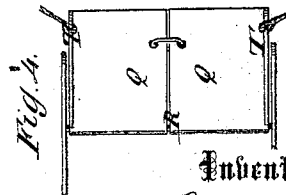


Fig. 4.

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UNITED STATES PATENT OFFICE.

ORSON W. KELLOGG, OF FOND DU LAC, WISCONSIN.

IMPROVEMENT IN STREET-SWEEPERS.

Specification forming part of Letters Patent No. 136,438, dated March 4, 1873.

To all whom it may concern:

Be it known that I, ORSON W. KELLOGG, of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and Improved Street-Sweeping Machine, of which the following is a specification:

The invention consists in the improvement of street-sweeping machines, as hereinafter described and pointed out in the claims.

Figure 1 is a longitudinal sectional elevation of my improved street-sweeping machine. Fig. 2 is a plan view; and Fig. 3 is a detail showing the arrangement of the gears connecting the brush and the elevator with the driving-gear at both ends of their shafts, in such manner that the slowing of the motion of one wheel of the truck when turning corners will not interfere with or obstruct the gearing or lessen their motion. Fig. 4 is a detail showing the construction of the dust-pan.

Similar letters of reference indicate corresponding parts.

A represents the hind axle of the truck; B, the hind wheels; C, the brush; D, the frame on which the brush is mounted; E, the wheels of the truck; F, the driving-wheels on the truck-wheels for turning the brush; and G, the pinions on the brush-shaft, gearing with the wheels F. The frame D is pivoted at one end on the axle A so as to swing or oscillate thereon, and its other support is the wheels E, which are directly under the brush-shaft, and gage the brush to the ground. These wheels are mounted in the curved bars H, which are fitted adjustably to the frame D, so that it can be shifted as to height to adjust the pressure of the brush on the ground. For raising the brush entirely off the ground the frame D is connected by chains I to the rollers K, which are turned by the roller L, cord M, and hand-lever N, and the lever is fastened to hold the brush up by the spring-catch O and notched bar P. Q represents the dust-pan, which is pivoted at one end on the rod R just in advance of the brush, and the other end drags along the ground to receive all the dust lifted by the brush, and conduct it up to the endless elevator S. This pan is divided vertically at the center in two parts, so as to conform to the uneven surface of the ground better than it would if made wholly in one piece. Near the lower end the pan is connected by cords or chains T with the frame D, so as to be raised by the said frame when it is raised. The endless elevator runs from roller

U up into the dust-box V, over roller W, and discharges the dust on the bottom X, which is suspended at one end on hinges, and at the other end from the roller Z by chains Z'. The roller has a hand-crank for lowering and raising the bottom for unloading the dust; it also has a ratchet-wheel, *a*, and pawl *b* for holding the bottom closed. Both the brush and the endless elevator are geared at each end with one of the truck-wheels B. The elevator, by belts and pulleys which turn independently of each other, and the pinions of the brush and pulleys of the elevators, are connected to their respective shafts by a ratchet-wheel, *d*, and pawl *e*, which engage only when turning forward, so that in turning corners, when one truck-wheel B runs slower than the other, the shafts being turned by the outside one, having the greatest motion, will overrun the driver on the other side and be independent of it. Thus the full speed will be maintained, the gears will not clash, and when running directly forward the power of both truck-wheels will be utilized for driving the machinery. A' is a rake for loosening up the matters caked on the pavement in advance of the brush, which I propose to pivot upon the front axle, as at B', so as to work properly over the uneven surface of the ground, and I provide a weight, E', to regulate the pressure of the rake-teeth on the ground. This weight is also so adjusted that it will also hold the rake-teeth off the ground by being thrown forward to the other side of the axis B'.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The brush-frame D, mounted on the axle A, and gage-wheels E, and the brush geared with the truck-wheels, substantially as specified.
2. The arrangement of the lever N, cord M, pulleys L K, and chains I with the brush-supporting frame and the dust-pan, the latter being connected to the brush-frame, substantially as specified.
3. The brush and the elevator-shafts, geared at each end with the independent truck-wheels by wheels having a ratchet-and-pawl connection, *d e*, substantially as specified.

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