

W. M. BLUME.  
Street-Sweeping Machine.

No. 162,345.

Patented April 20, 1875.

Fig: 1.

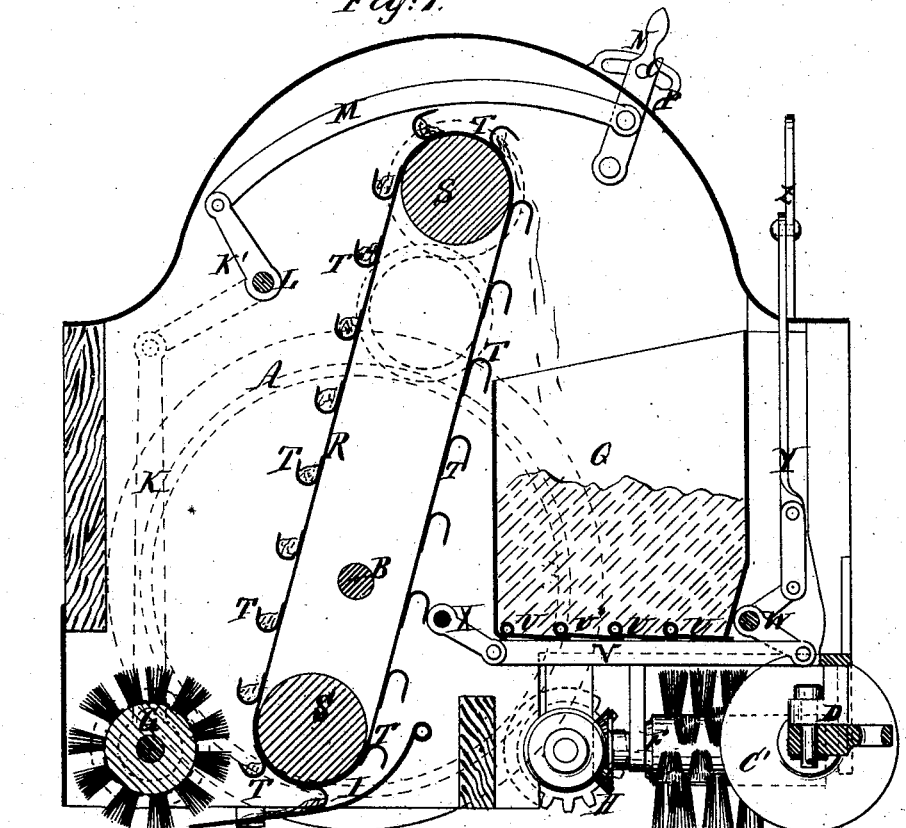
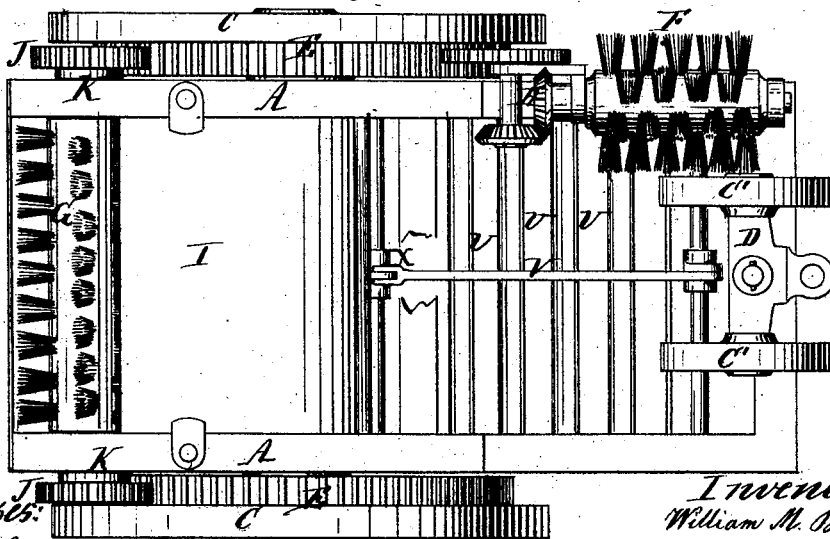


Fig: 2.



Witnesses:  
E. Bilhuber.  
Chas. Wahlen

Inventor:  
William M. Blume  
Van Santwood & Hauff  
attorneys

# UNITED STATES PATENT OFFICE.

WILLIAM M. BLUME, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN STREET-SWEEPING MACHINES.

Specification forming part of Letters Patent No. **162,345**, dated April 20, 1875; application filed March 4, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM M. BLUME, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Street-Sweeping Machines, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section. Fig. 2 is an inverted plan.

Similar letters indicate corresponding parts.

My invention relates to machines for sweeping streets, in which the dirt is taken up by one or more brushes, which throw it upon an elevating mechanism, which carries it upward and delivers it to a dirt-receptacle.

My invention consists of a novel combination of parts, whereby the apparatus is rendered more efficient and convenient in use, as will be hereinafter described, and pointed out in the claims.

In the drawing, the letter A designates the side walls or body of my machine, connected together by a suitable top plate, which walls constitute the bearings for shafts, hereinafter referred to, as well as for the axles B of the wheels C, on which the machine is supported and propelled. In addition to the wheels C the apparatus is provided with front wheels C' of smaller diameter, and whose axle D is capable of turning, in order that the machine may be turned. By the side of one or both of the main wheels C is formed or secured a toothed wheel, E, of somewhat smaller diameter than the wheel C, and which serves to drive the brushes of the machine. At the front of the machine is located the gutter-brush F, one or more of which may be used, and the direction of which is in the line of draft of the vehicle, but which rotates crosswise of the apparatus. The brush F is located in front, and just within the line of one of the main wheels C, so that when the machine is driven in proximity to the gutter of a street, and the brush F is given a rotary motion, any and all dirt met with is displaced and swept inward into the path of the main brush G. A rotary motion is imparted to the gutter-brush F through the medium of bevel-gear H, suitably connected with the driving-wheel E. The main brush G is so

located, relatively to a receiving plate or pan, I, that any dirt caught by it is swept on the said pan. The pan I, as well as the main brush G, extends entirely across the apparatus, and is supported by the side walls A. In order to impart a rotary motion to the main brush G, there is mounted on its shafts, on one or both sides of the machine, gear-wheels J, which engage with the driving-wheel E. To the brush-shaft are connected arms K, one on each side of the machine, which arms connect with one arm of a bell-crank, K', mounted on a rock-shaft, L, and the other arm of which connects, by means of an intermediate arm, M, with a hand-lever, N. This lever N is situated near the front of the machine, and within convenient reach of the driver. By pushing or pulling the said hand-lever N, the main brush G is raised or lowered through the intermediate arms and lever; and for the purpose of holding the brush in place I combine with the lever a clamping-screw, O, that works in a slot formed in a plate, P, secured at that point. By adjusting and clamping the lever N by means of the screw O, the lever, and with it the intermediate mechanism and brush G, is firmly held in position. The several arms and levers K M N are arranged along one of the side walls A, so that they are not liable to interfere with the working of the other parts. The dirt swept on the pan I is taken therefrom and deposited in a box or receptacle, Q, by means of an elevator composed of a belt, R, which passes over rollers S, and to which are attached scoops T. The length of the scoops T is equal to the width of the receiving plate or pan I, and the plate is slightly curved, so that every portion of dirt swept on the plate is taken up by the scoops. The main brush G revolves in an opposite direction to that in which the scoops T move. If the quantity of dirt swept up by the brush G is great, the same is swept directly into the scoops T without the intervention of the pan I. From the scoops T the dirt falls into its receptacle Q, the bottom of which is constructed of a series of cross-slats, U, supported by a longitudinal bar, V. The one end of the bar V is suspended from a rock-shaft, X, while its other end connects through a bell-crank, W, and an arm, Y, with a hand-lever, Z. The slats U are

hinged eccentrically to the sides of the receptacle Q, as shown in Fig. 1, so that they have a tendency to fall when the supporting-bar V is removed. The lever Z has a peculiar arrangement, being pivoted at or near its center to the upper end of the connecting-arm Y, and being of such length relatively thereto that when the lever is in a vertical position, and rests on one of its ends, as indicated in the drawing, the arm Y is raised, and the supporting-bar V is held so as to retain the slats U in a closed condition. When the lever Z is released, the bar V, by its own weight and that of the slats, as well as of the dirt resting thereon, is caused to drop, and the dirt escapes through the spaces between the slats. The contents of the machine can thus be dumped by the driver without leaving his seat.

What I claim as new, and desire to secure by Letters Patent, is—

1. The continuously-revolving gutter-brush

F at the front of the machine, arranged at right angles to the rear main brush, in combination with the curved plate I, arranged in front of the main brush, for receiving the dirt, the elevating mechanism, and the dirt-receptacle Q, having a bottom constructed of hinged slats, all substantially as herein shown and described.

2. The combination of the main brush, the elevating mechanism, and the dirt-receptacle, having a bottom constructed of hinged slats, with the hand-lever Z, arm V, and bell-crank W, all substantially as herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 27th day of February, 1875.

W. M. BLUME. [L. S.]

Witnesses:

W. HAUFF,

CHAS. WAHLERS.