

(No Model.)

C. WEILER.
STREET SWEEPING MACHINE.

No. 401,232.

Patented Apr. 9, 1889.

Fig. 1.

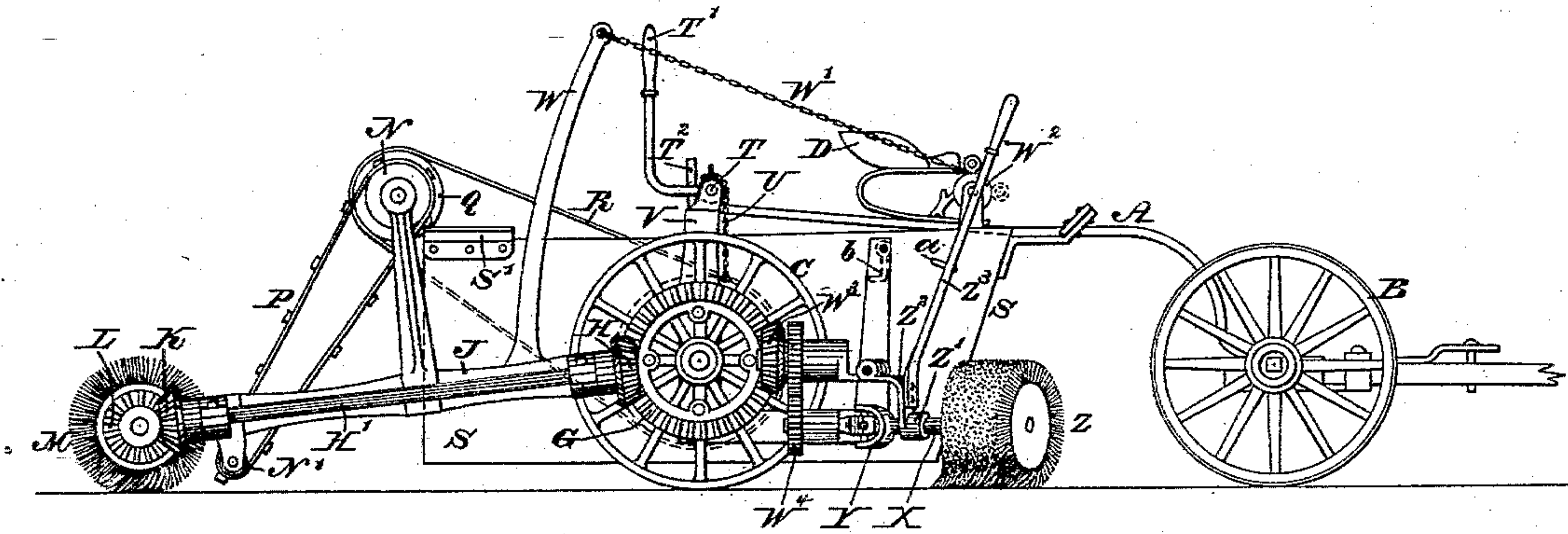


Fig. 2.

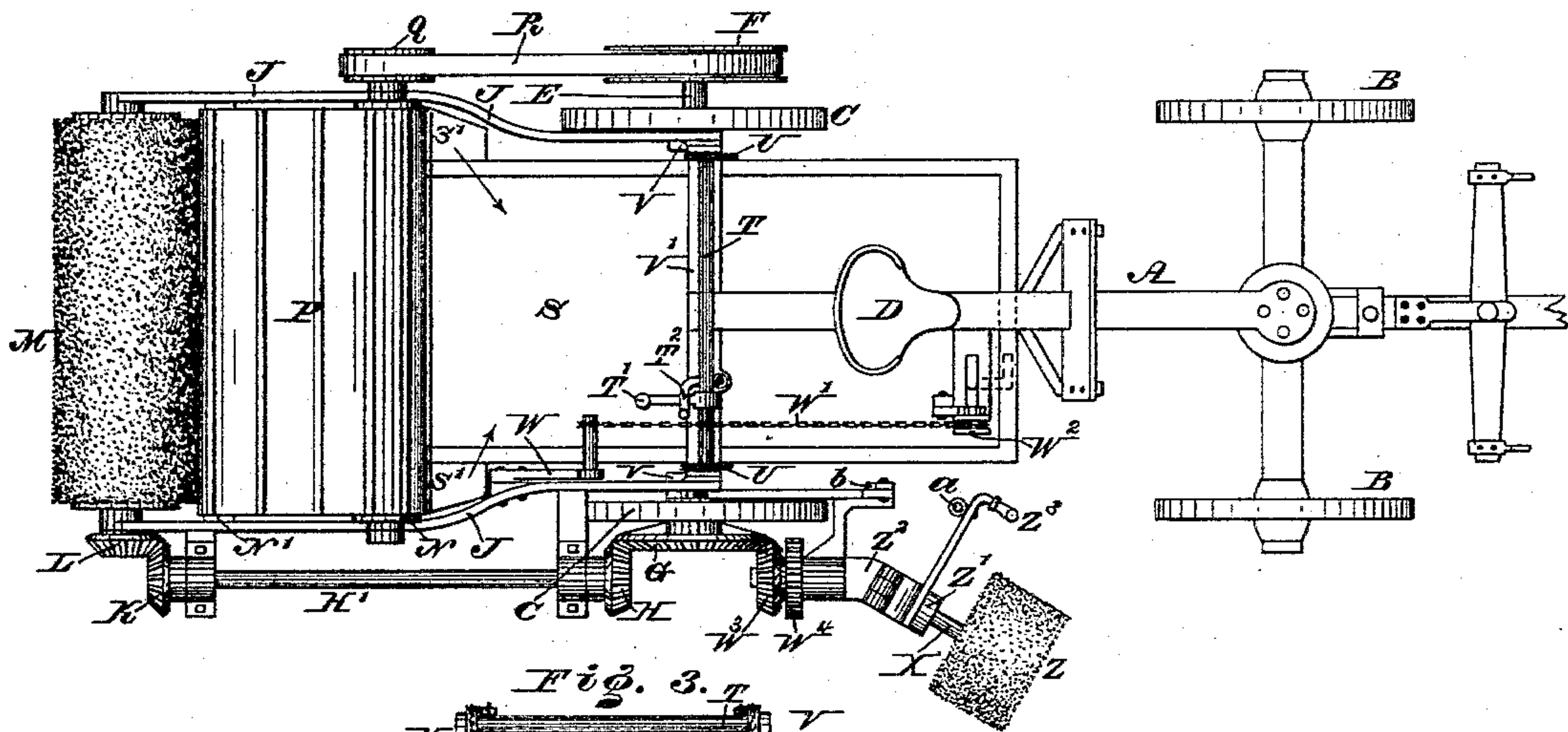
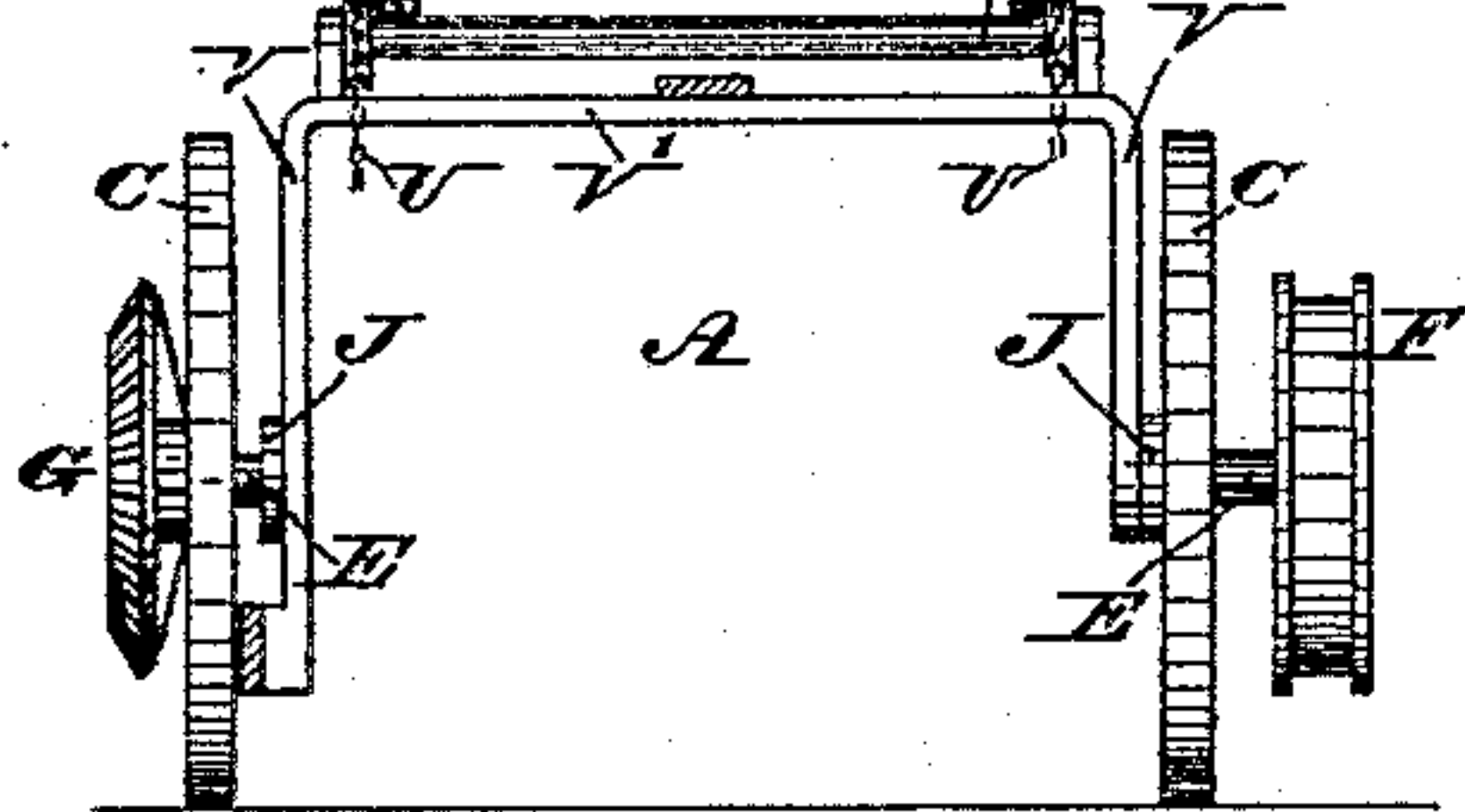


Fig. 3.



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CHARLES WEILER, OF PHILADELPHIA, PENNSYLVANIA.

STREET-SWEEPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 401,232, dated April 9, 1889.

Application filed February 24, 1887. Serial No. 228,719. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WEILER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Street-Sweeping Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a street-sweeping machine embodying my invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a front view of a portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a street-sweeping machine having a brush for sweeping the gutters or sides and main portion of a street, the construction and operation of the same being hereinafter fully set forth.

Referring to the drawings, A represents the truck of the machine; B, the front wheels; C, the hind wheels, and D the driver's seat thereof. To the axle E of one of the hind wheels, or directly to said wheel, if so desired, is secured the pulley F and bevel or gear wheel G. Meshing with the wheel G is a pinion, H, whose shaft H' is mounted on a rising-and-falling frame, J, whose bearings are on the axles E. To the rear end of said shaft H' is secured a pinion, K, which meshes with the pinion L on the axle of a rotary brush, M, which, as will be seen, is supported on the rear of the frame J and adapted to rest on the street or ground, and extends transversely. On the frame J are also mounted rollers N N', which are located one above the other in front of the brush M, and passing around said rollers is an endless apron, P, having a surface suitably prepared or provided with attachments for retaining the dirt swept thereon until deposited in the box, and which receives motion from a pulley, Q, on the shaft of the roller N, a belt, R, and the pulley F on one of the axles E, said belt passing around the pulleys Q F.

S represents the body or dirt-receiving box of the machine, the same being suspended from a rock-shaft, T, by means of chains U, which are attached to said body S and shaft T.

Rising from the axles E and connecting the

same are uprights V, which form bearings for the shaft T, the latter being provided with a handle, T', for purposes of rotation, whereby the body S may be readily raised and lowered. When the body is in elevated position, the handle is engaged by a catch, T², on the top or connecting cross-piece, V', of the uprights V, whereby rotation of the shaft T and descent of the body S are prevented. The reach of the truck or running-gear is connected with the cross-piece V'.

It will be seen that the apron P is located between the brush M and body S and extends in inclined direction from the brush to the top of the body S.

The frame J has secured to it an arm, W, the latter having attached to it a chain, W', which is connected with a shaft, W², on which said chain may be wound, said shaft W² being mounted on the upper portion of the truck A, and having a crank-handle whereby, by rotating the shaft W², the frame J may be conveniently elevated, and the brush M consequently raised from the ground.

Meshing with the wheel G is a bevel-wheel, W³, which, by means of gearing W⁴, communicates motion to a rotary shaft, X, the latter being formed in sections connected by tumbler-joint Y, the front section of said shaft X carrying a brush, Z, which, as will be seen, occupies a diagonal position on the street or ground, and is outside of the wheels of the machine, so that the wheels are removed from the curb of the street, said section passing through and being supported by a collar, Z', which is secured to an arm, Z², the latter being hinged to the side of the truck A and having a lever or handle, Z³, whereby the front section of the shaft X, and consequently the brush Z, may be raised or lowered.

The lever Z³ is provided with an eye, a, which may be engaged by a hook, b, on the truck A for locking said lever and holding the brush Z in elevated position.

The operation is as follows, the parts being in position shown in the drawings: The machine is drawn forward, whereby the gearing is set in motion. This operates the brushes Z M, the brush Z sweeping the dirt from the gutter or side of a street toward the path of the brush M, the latter then directing the dirt in front of said brush to the apron P, so

that the dirt is conveyed upwardly by the apron and deposited in the box or cart-body S of the machine. Should it be desired to raise the brushes from the street or stop the brushing operation, the lever Z^3 is moved and the shaft W^2 rotated, whereby the brushes Z M are respectively elevated, the gearing of the machine, however, continuing to rotate, it being noticed that the axles of the brush M and pulley Q are described from the axle E as a center, the shaft H' and belt R rising and falling with the frame J without being interrupted in their motions. Owing to the tumbler-joint Y of the shaft X, the brush Z may be raised and lowered while its rotation continues. By releasing the handle T' from the catch T^2 the shaft T may rotate, the chains U be unwound, and the body S lowered, it being noticed that the chains may be released from the shaft T and the body S carted away, as desired.

At the sides of the cart-body, at the top thereof, are deflectors S' , which serve to catch the dirt dropping from the top of the apron at the extreme sides and direct the same into said body. By this provision a long brush and wide apron may be used without necessarily employing a wide cart-body.

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

1. A street-sweeping machine consisting of a truck with a rising-and-falling frame pivotally mounted on its rear axle, a rotary brush

and an endless apron journaled on said frame and operated by the rotation of the hind wheels of the truck, and a side brush having a tumble-joint-shaft coupling and gearing by which it is operated from the axles of one of the hind wheels of the truck, substantially as described.

2. A street-sweeping machine consisting of a truck with a rising-and-falling frame pivotally mounted on its rear axle, a rotary brush and an endless apron journaled on said frame and operated by the rotation of the hind wheels of the truck, an adjustable box supported on said truck, a rotary shaft and chain, the latter connected to an arm of the rising-and-falling frame, and a side brush rotated by gearing connected with a bevel-wheel on the axle of one of the hind wheels of the truck, said parts being combined substantially as and for the purpose set forth.

3. In a street-sweeping machine, the gear-wheel G, mounted on one of the axles of the running-gear, in combination with the bevel-wheel W^3 , the sectional rotary shaft X, having gimbal-joint Y and a brush, the gearing W^4 , connecting the shaft X with bevel-wheel W^3 , and the arm Z^2 , hinged to the truck A and provided with collar Z' and lever Z^3 , all substantially as described.

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