(No Model.) 2 Sheets—Sheet 1.

C. Z. O'NEILL.

STREET SWEEPER.

No. 507,719. Patented Oct. 31, 1893.

Fig. 1

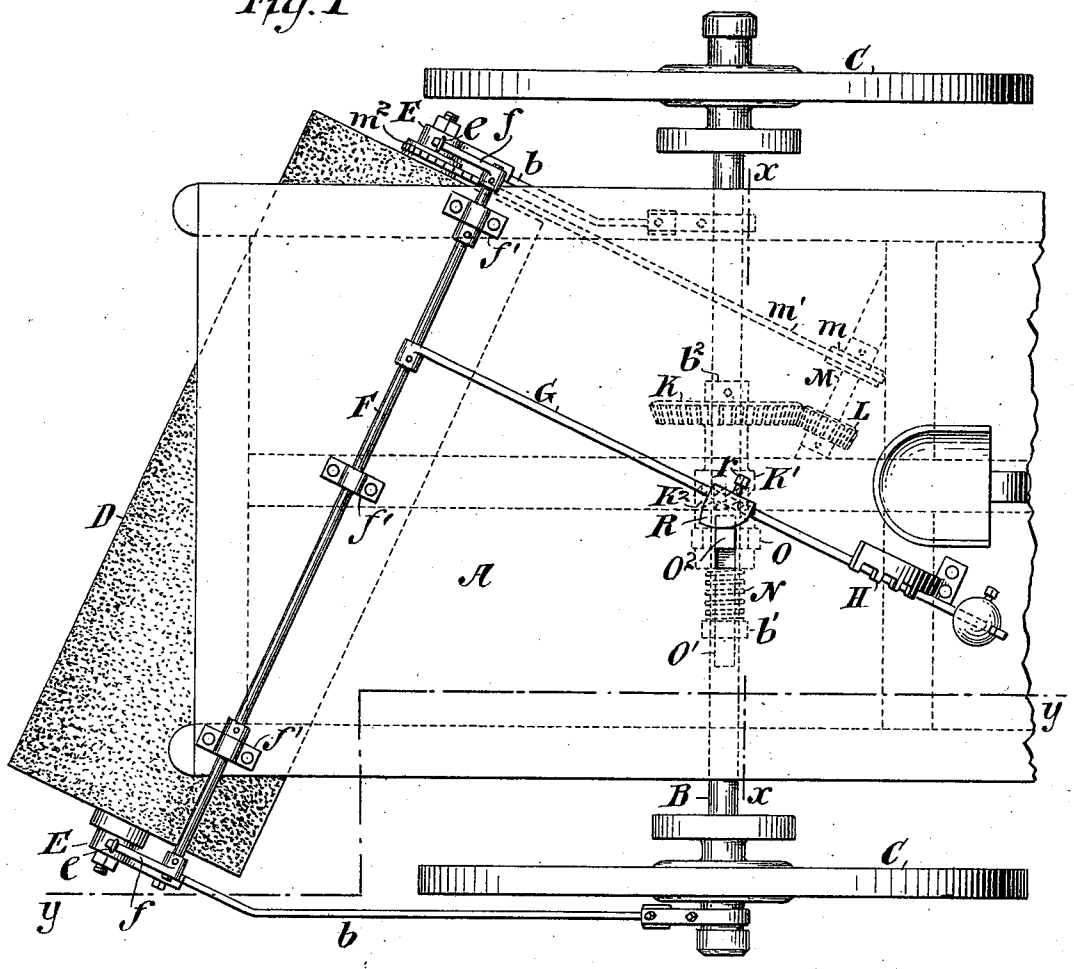
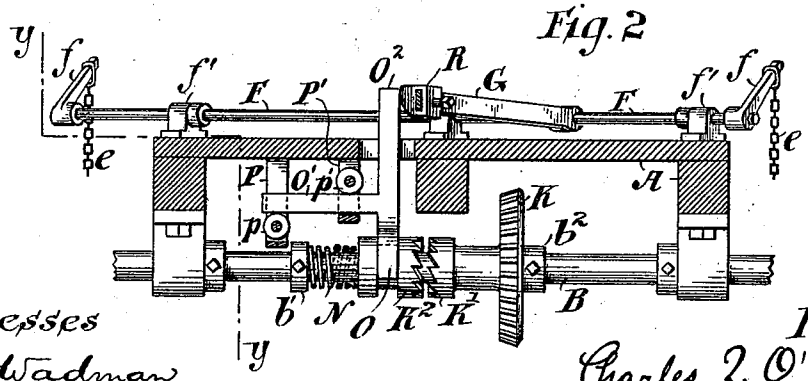


Fig. 2



Witnesses
Geo. Wadman
Henry Schwink

Inventor
Charles Z. O'Neill
by William B. Greeley
Atty

(No Model.) 2 Sheets—Sheet 2.

C. Z. O'NEILL.

STREET SWEEPER.

No. 507,719. Patented Oct. 31, 1893.

Fig. 3

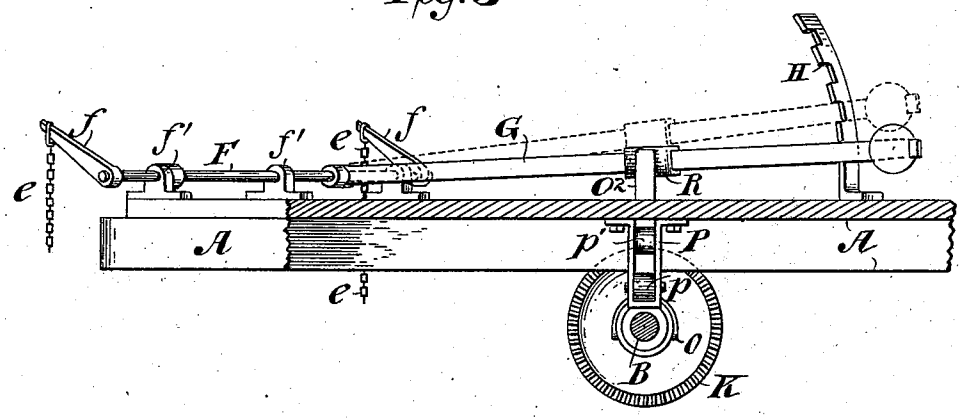
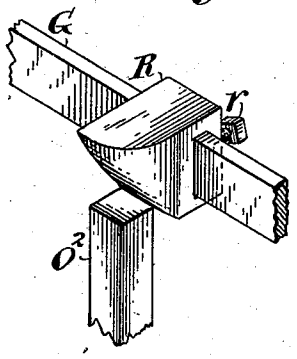


Fig. 4.



Witnesses
Geo. Wadman
Henry Schwenk

Inventor
Charles Z. O'Neill
by William B. Greeley
Atty

UNITED STATES PATENT OFFICE.

CHARLES Z. O'NEILL, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO GEORGE B. MARX, OF SAME PLACE.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 507,719, dated October 31, 1893.

Application filed September 4, 1893. Serial No. 484,708. (No model.)

To all whom it may concern:

Be it known that I, CHARLES Z. O'NEILL, of New York, in the county and State of New York, have invented certain new and useful Improvements in Street-Sweeping Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to street-sweeping machines of the usual type, wherein a rotary broom is driven by the advance of the sweeper and is adapted to be raised clear of the pavement.

The object of the invention is to provide improved means for automatically stopping the rotation of the broom as it is raised from the pavement and particularly to provide means for this purpose which can be readily applied to sweeping machines without modifying their construction materially.

The invention consists in the construction hereinafter described and pointed out in the claim.

In the drawings: Figure 1 is a plan view of a sufficient portion of a street sweeping machine to illustrate the application of my improvement. Fig. 2 is a partial section on the line x—x of Fig. 1, looking toward the left. Fig. 3 is a partial section on the line y—y of Fig. 1, and Fig. 4 is a detail view in perspective of the cam or wedge hereinafter referred to, showing also a portion of the arm or lever on which it is mounted and a portion of the clutch-shifter operated by the wedge.

I have represented my improvement as applied to a street-sweeping machine of a well known type in which the body or platform A is mounted upon a rotary axle B having wheels C, C. The broom D is secured upon a shaft E, the ends of which are connected to the ends of the axle B by links b, b, while the broom is supported or hung by chains e, e, from arms f, f, which are fixed to a rock-shaft F, the latter being mounted in suitable bearings f', f', on the body A. An operating lever G is also secured to the shaft F and is extended forward so that it may be conveniently manipulated by the driver for the purpose of raising or lowering the broom. A notched bar or plate H is fixed to the body A in position to retain the lever G and the broom in any desired position. The broom is rotated by suitable gearing from the axle B, the gearing comprising, as indicated in Fig. 1, a bevel-gear K on the axle B, a small gear L which is fixed to a short shaft M, a chain-wheel m on said shaft, a chain m', and a chain-wheel m^2 on the shaft E of the broom. The gear K is loose on the shaft or axle B and has fixed thereto one member K′ of a clutch, the other member K^2 of which is splined on the axle so that it shall rotate therewith while being free to be moved longitudinally thereon. A spring N, which is confined between a collar b' and the sliding member K^2 tends to keep the latter in engagement with the member K′. A collar b^2 prevents the gear K from sliding in one direction, while the engagement of said gear with the gear M prevents the former from sliding in the opposite direction. The clutch-shifter consists of a fork O which engages the sliding member K^2 of the clutch, a horizontal arm O′ which is guided in brackets P, P′, secured to the under side of the body A, and a vertical arm O^2 which extends upwardly through an opening in the platform or body A near the plane of movement of the lever G. The horizontal arm of the clutch-shifter bears against the upper side of a roller p, which is mounted in the bracket P, and against the under side of a roller p' which is mounted in the bracket P′. The lifting-arm or lever G bears a wedge or cam R (shown in detail in Fig. 4) which, as the lever is pushed down to raise the broom clear of the pavement, contacts with the arm O^2 of the clutch-shifter and thrusts the latter back against the force of the spring N, disconnecting the clutch K′, K^2, and thereby stopping the rotation of the broom. The cam or wedge is preferably made adjustable upon the arm or lever G and may be held in place by a set-screw r, whereby the cam or wedge is not only easily applied to the arm or lever but may be readily shifted thereon to bring it into the best position to effect its object. If such adjustment is not necessary it is obvious that it is immaterial whether the inclined or cam surface be formed on the lever G or on the arm O^2.

The mode of operation of the improved de-

vice will be understood clearly without further description.

The device is simple, inexpensive and easily applied to machines already built without requiring the construction of the machine to be modified materially.

I claim as my invention—

In a street-sweeping machine, the combination of a rotary axle, a rotary broom, gearing to drive said broom from said axle, a clutch included in said gearing, a rock-shaft and intermediate means to raise and lower the broom, an operating lever fixed to said shaft, a clutch-shifter comprising a fork to engage the sliding member of said clutch, a horizontal arm, and a vertical arm extended upward near the path of movement of said lever, guides for said horizontal arm, and a cam actuated by said lever to move said clutch-shifter, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES Z. O'NEILL.

Witnesses:
A. N. JESBERA,
W. B. GREELEY.