

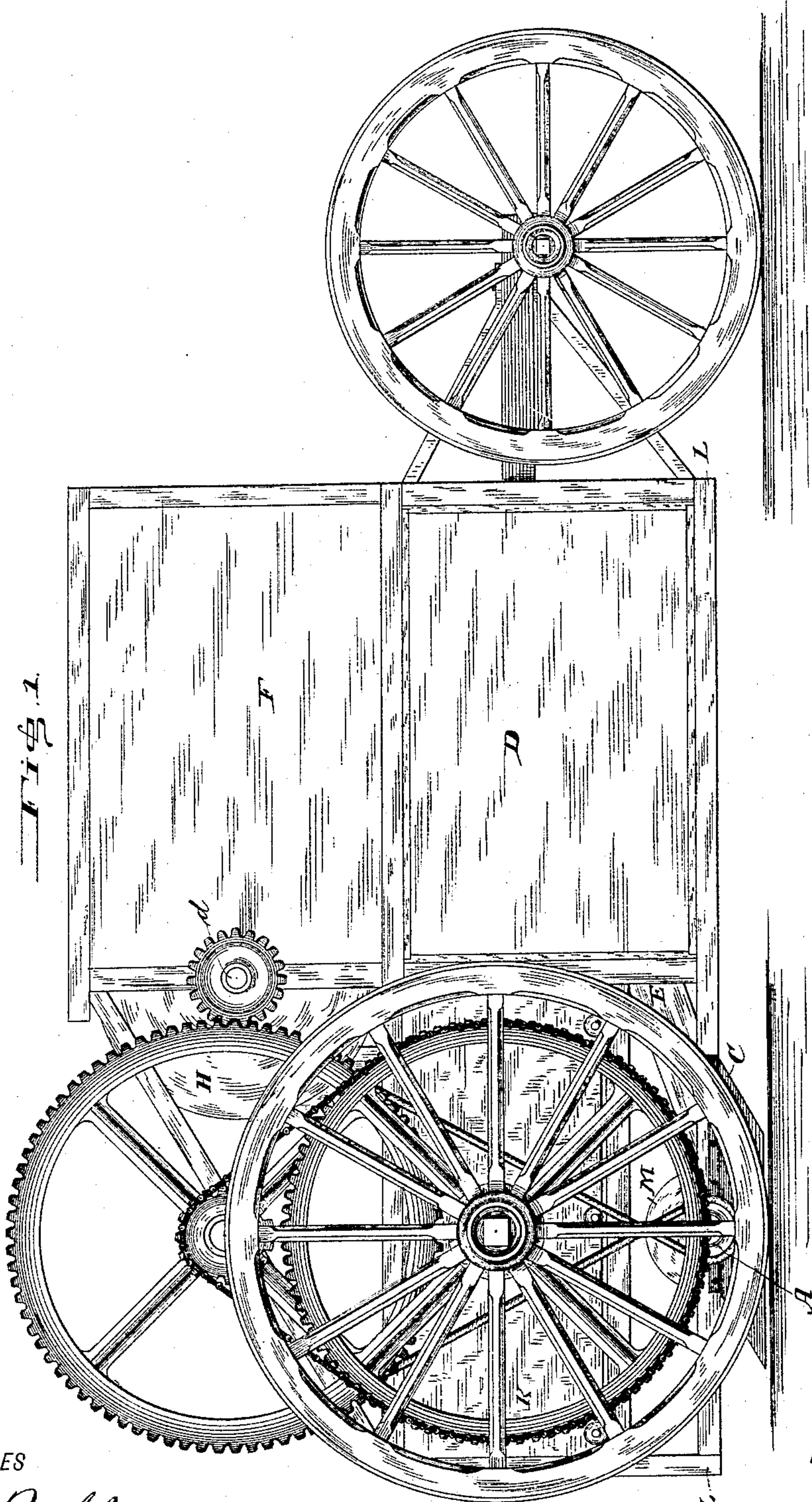
(No Model.)

2 Sheets—Sheet 1.

H. E. PAINE.
STREET SWEEPER.

No. 328,057.

Patented Oct. 13, 1885.



WITNESSES

C. T. Bell.
Stony B. Lind.

INVENTOR

Halbert E. Paine.

(No Model.)

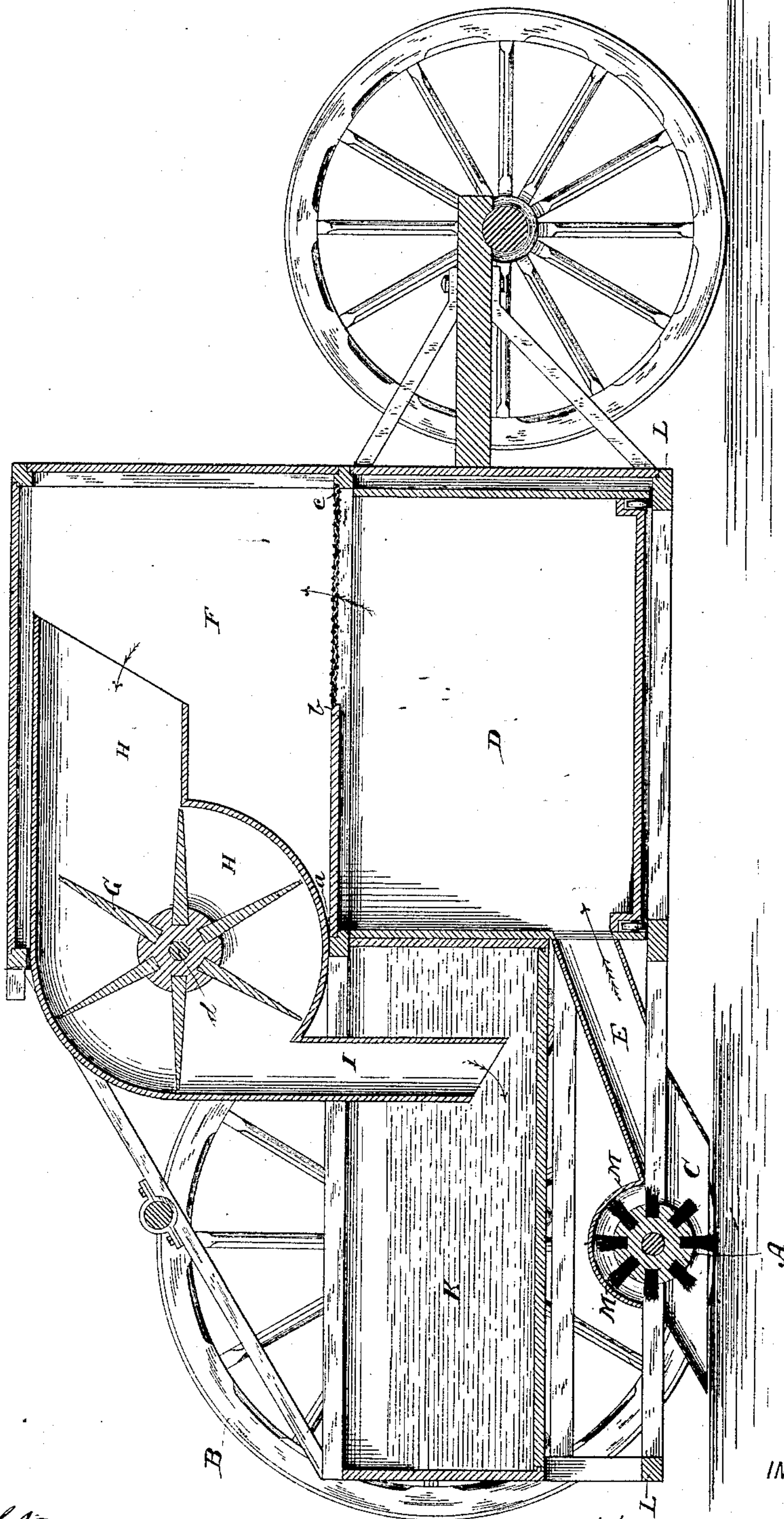
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Fig. 2.



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Stony B. Ladd.

INVENTOR

Harbert E. Paine

UNITED STATES PATENT OFFICE.

HALBERT E. PAINE, OF MILWAUKEE, WISCONSIN.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 328,057, dated October 13, 1885.

Application filed July 20, 1883. Serial No. 101,453. (No model.)

To all whom it may concern:

Be it known that I, HALBERT E. PAINE, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Street-Sweepers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The objects of my invention are, first, to render it practicable to sweep streets without wetting them, and at the same time to avoid the dust raised by the use of the ordinary sweepers on dry streets; second, to render it practicable to sweep streets in the day-time, so as to avoid the annoyance occasioned by the use of street-sweepers at night; third, to avoid the noise and dust made by the laborers and carts which follow the machines in common use for the purpose of collecting and removing the dirt; fourth, to moisten the dust within the machine, so that it may be removed without polluting the air; fifth, to facilitate and cheapen the work of sweeping and of collecting and removing the dirt.

In the drawings hereto attached, Figure 1 represents a side view of the sweeper, and Fig. 2 a vertical longitudinal section.

A represents a horizontal cylindrical brush, having its axis at right angles with the line of draft, actuated by the wheel B, and geared to a high velocity.

C is a curtain of flexible material extending across the track of the machine in front of the brush, and enveloping the ends of the brush, and kept in contact with or near to the pavement at all points by means of elastic fingers attached to the bed of the machine.

D is a movable box, without a cover, into which all the dirt and dust are first drawn through the conduit E, in which box the coarser and heavier portions remain until it is sufficiently charged, when it gives place to another similar box and is removed and emptied of its contents.

F is a chamber, permanently attached to the

body of the wagon, with a close bottom from *a* to *b* and a sieve-bottom from *b* to *c*, admitting the dust to the chamber, but excluding the coarser portions, which remain in the box D.

G, H, and I represent, respectively, the blower and blower-case and the conduit to the water-tank at the rear of the dust-chamber F. By the blower G the dust is forced through the case H and the conduit I into the water contained in the movable tank K, where it remains until the tank is removed to be emptied of its contents and replaced by another tank. The blower-case and conduit are pivoted at the axis *d*, so that the elevation of the conduit may permit the tank to be removed. The blower is driven by the wheel B, and is geared to a high velocity, so as not only to force the dust through the conduit I, but also to assist the brush in drawing the dust and dirt through the inlet E and preventing its escape into the air, either in the vicinity of the brush or elsewhere.

The frame L of the wagon rests upon the rear axle-tree, which is of iron, bent downward, and passing under the frame. It also rests upon the front axle-tree, which is straight.

The length of the brush may be equal to or less than the width of the wagon. Its upper half is incased in the half-cylinder M, which is attached to the bed of the wagon.

Any convenient devices may be used for communicating power from the wheels; but it is better to use both hind wheels with pawl-and-ratchet connections, so that there may be no loss of motion in turning the wagon. In like manner any convenient blowing device may be used. The dirt-box D and tank K may be permanently attached to the bed of the wagon and their contents removed from time to time.

I do not claim the revolving brush, whether used in a horizontal position at right angles with the line of draft or otherwise; nor do I claim the combination of the brush with the blower without the water-tank, whatever the relative positions of the blower and brush may be.

I claim—

1. In a street-sweeper, the combination of the brush, conduit E, removable dirt-box,

sieve, dust-chamber, blower-case, blower, conduit, and water-tank, so arranged as to force the heavier and coarser matter into the dirt-box and to carry the dust through the sieve, blower-case, and conduit into the water contained
5 in the tank, substantially as described.

2. In a street-sweeper, the combination of a removable water-tank, a fan-blower mounted on a revolving axis, a blower-case pivoted to
10 the said axis and provided with an inlet for

the dust, and a conduit leading into the water-tank, so that the said conduit can be withdrawn from the water-tank by turning the case upon the axis, substantially as described.

In testimony whereof I affix my signature in
15 presence of two witnesses.

H. E. PAINE.

Witnesses:

STORY B. LADD,

AUG. M. TANNER.