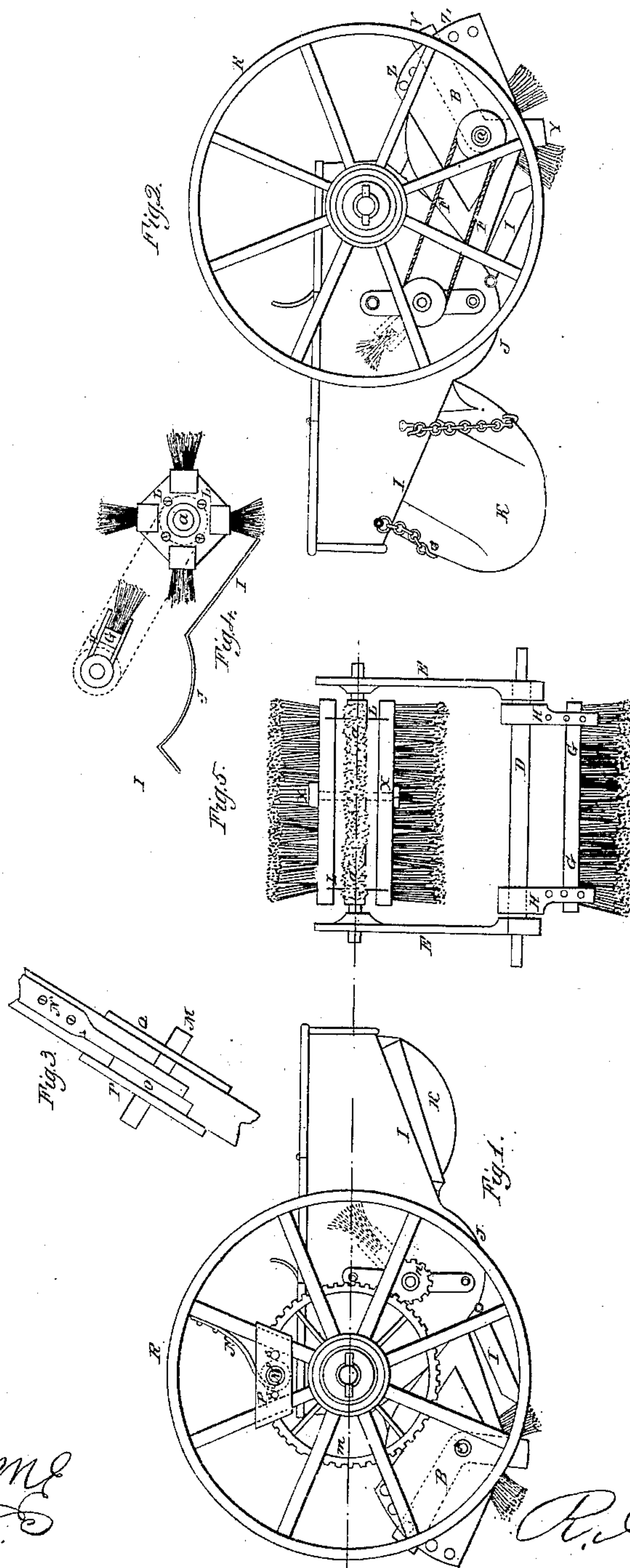


R. A. SMITH.
STREET SWEEPING MACHINE.

No. 27,481.

Patented Mar. 13. 1860.



Witnesses.

Charles Byrne
Jas. H. Legerwood

Inventor.

R. A. Smith

UNITED STATES PATENT OFFICE.

ROBERT A. SMITH, OF NEW YORK, N. Y.

STREET-SWEEPING MACHINE.

Specification of Letters Patent No. 27,481, dated March 13, 1860.

To all whom it may concern:

Be it known that I, ROBERT A. SMITH, of the city of New York, in the county and State of New York, have invented a new and
5 useful Machine for Sweeping and Cleaning Streets; and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

Figure 1 is a side elevation of my machine, showing the geared wheel and pinion; Fig. 2 is a side elevation of the opposite side of
15 the machine, showing the chain and inclined plane for conveying the dirt into rows outside the cart wheel. Fig. 3, is a plan of driving pin and detent spring. Fig. 4, a section through a main and delivering broom, and Fig. 5, a plan of a main and delivering broom.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

25 As the cart wheel R, revolves, Fig. 1, the driving pin M, secured by a spring N, Fig. 3, acts upon the spur-wheel *m* and small wheel (*n*) putting the chain I, Fig. 2, in motion; the main broom revolves on the shaft *a*, *a*, and conducts the dirt up the inclined plane I, into the cup J, which cup is adjusted to the circle described by the broom G, the dirt is thence passed out of the machine into rows over the plane K. When re-
35 quired a series of cups and brooms like J and G may be employed, see Figs. 1, 2, 4. The arm or lever B is hung on the main broom shaft *a*, the lower part Y, running on the street surface by means of slides or rollers; the upper end V, is secured when adjusted to Z, Z, by screws or a ratchet or their equivalents. The broom G, Fig. 5, may be made to describe a greater or a lesser circle by means of the graduated hangers
45 H, H. The brooms are secured to the main broom shaft *a*, Fig. 4, by a spindle L, L, and center bolts X, X, Fig. 5, in such a manner

that the quickest required motion has no tendency to destroy the broom. The spring N, and collar O, keep the driving pin M, in
50 or out of gear, Fig. 3, for the spring retains the collar to the side P, or to the side Q as required. The plates P and Q and the screw bolts *s*, *s*, fasten the driving pin M, Figs. 1, and 3, to the cart wheel without weakening
55 the spokes; the plates P, Q, prevent M from moving out, while *s*, *s*, prevent M from moving in toward the center of the wheel.

A horse is yoked to the cart in the usual way, and as he moves forward the cart
60 wheels revolve and the driving pin acts upon a pair of geared spur wheels and puts the chain F, Fig. 3, in motion; then as the main broom revolves the dirt is conducted up an inclined plane, into cups or a series
65 of cups, by the action of the brooms in the manner herein described; after the dirt is forced from the cups it passes over an inclined plane out of the machine in the manner herein described.

70 What I claim as my invention, and desire to secure by Letters Patent is—

1. The arm or lever B, hung on, and concentric with the main broom shaft *a*, moving as a radius therefrom; the lower part of
75 said arm runs on the street by means of slides or rollers; the upper end (Y) is adjusted and secured as herein described.

2. I also claim the cup or concavity (J), and inclined plane (I), immediately under,
80 and adjusted to the circle described by broom (G).

3. I also claim the inclined plane or spout (K), for conveying the dirt delivered by broom (G), into rows outside the cart-
85 wheel: this inclined plane can be supported at the highest end by hinges, or springs, or by their equivalents; the lower end by chains.

R. A. SMITH.

Witnesses:

OLIVER BYRNE,

JNO. H. LIDGERWOOD.