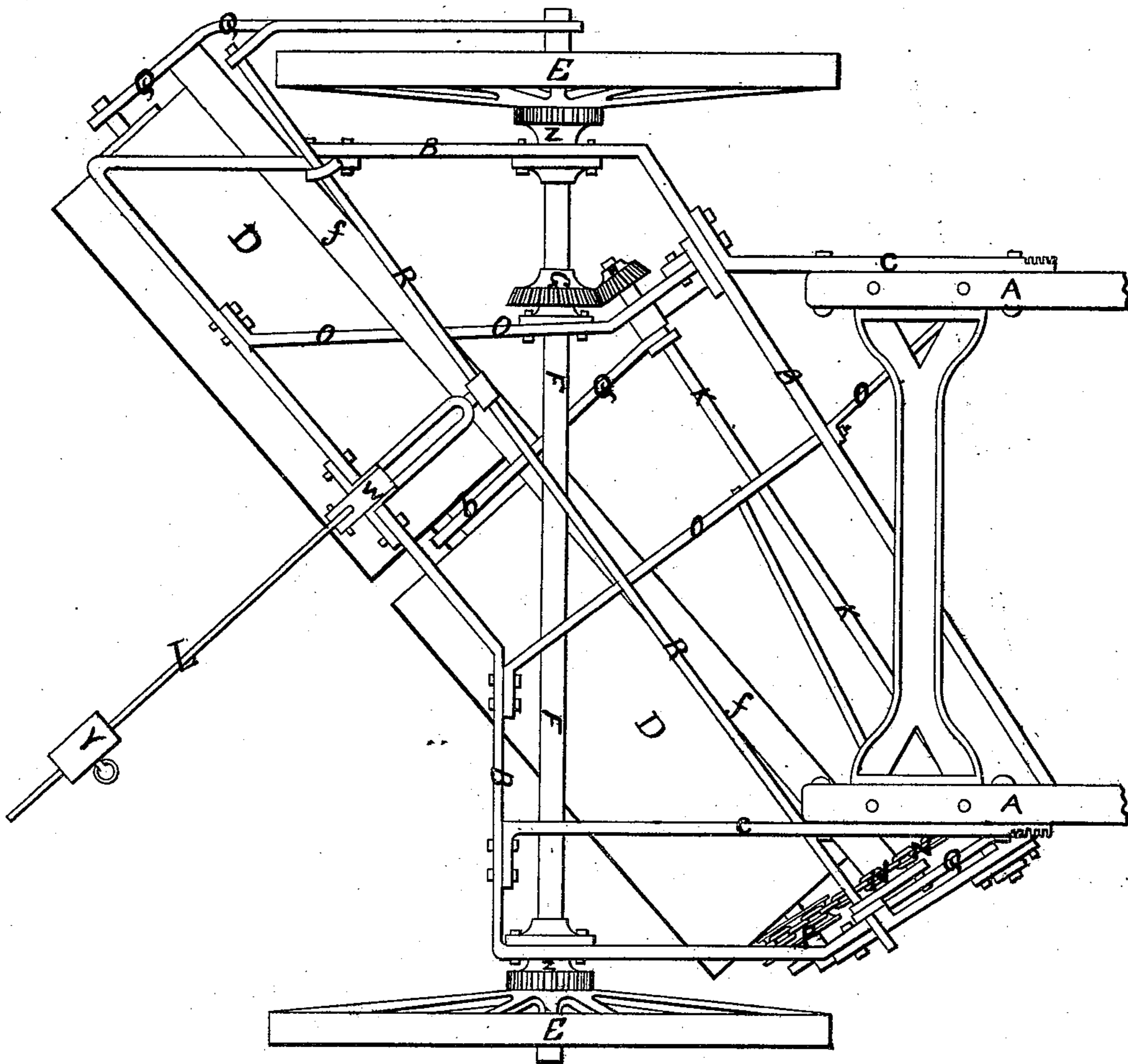


W. SMITH.
Street-Sweepers.

No. 141,241.

Patented July 29, 1873.

Fig. 1.



Witnesses.

*Wm Watson Junr
Wm Hartong*

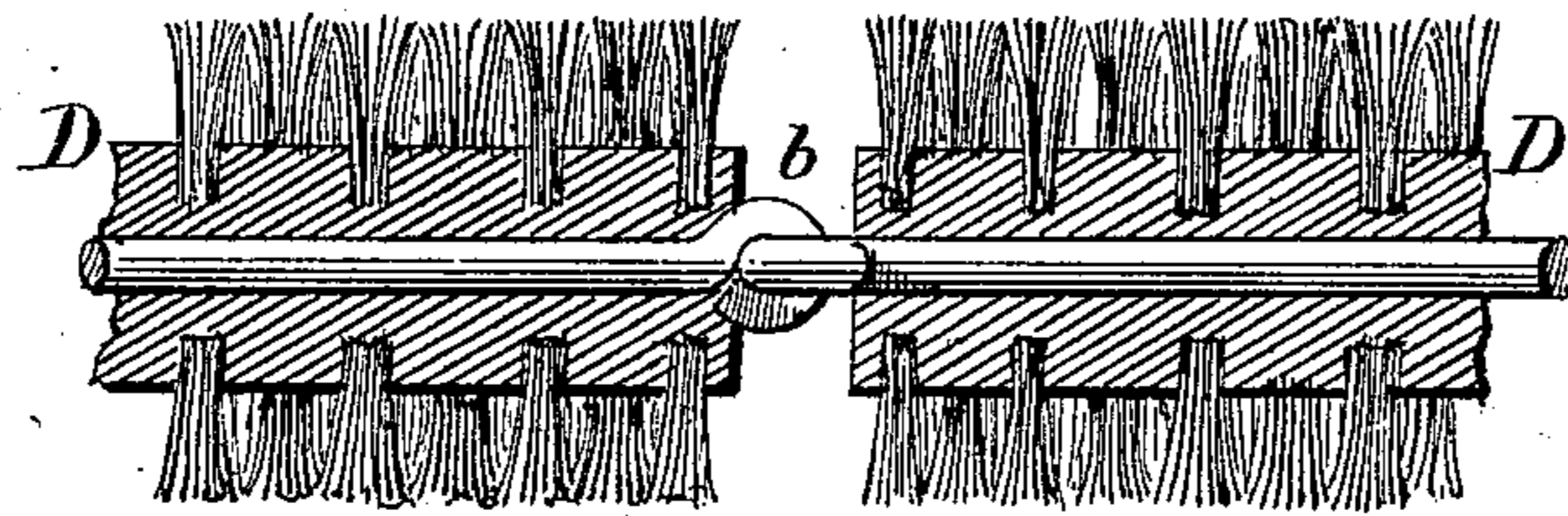
Inventor.

William Smith

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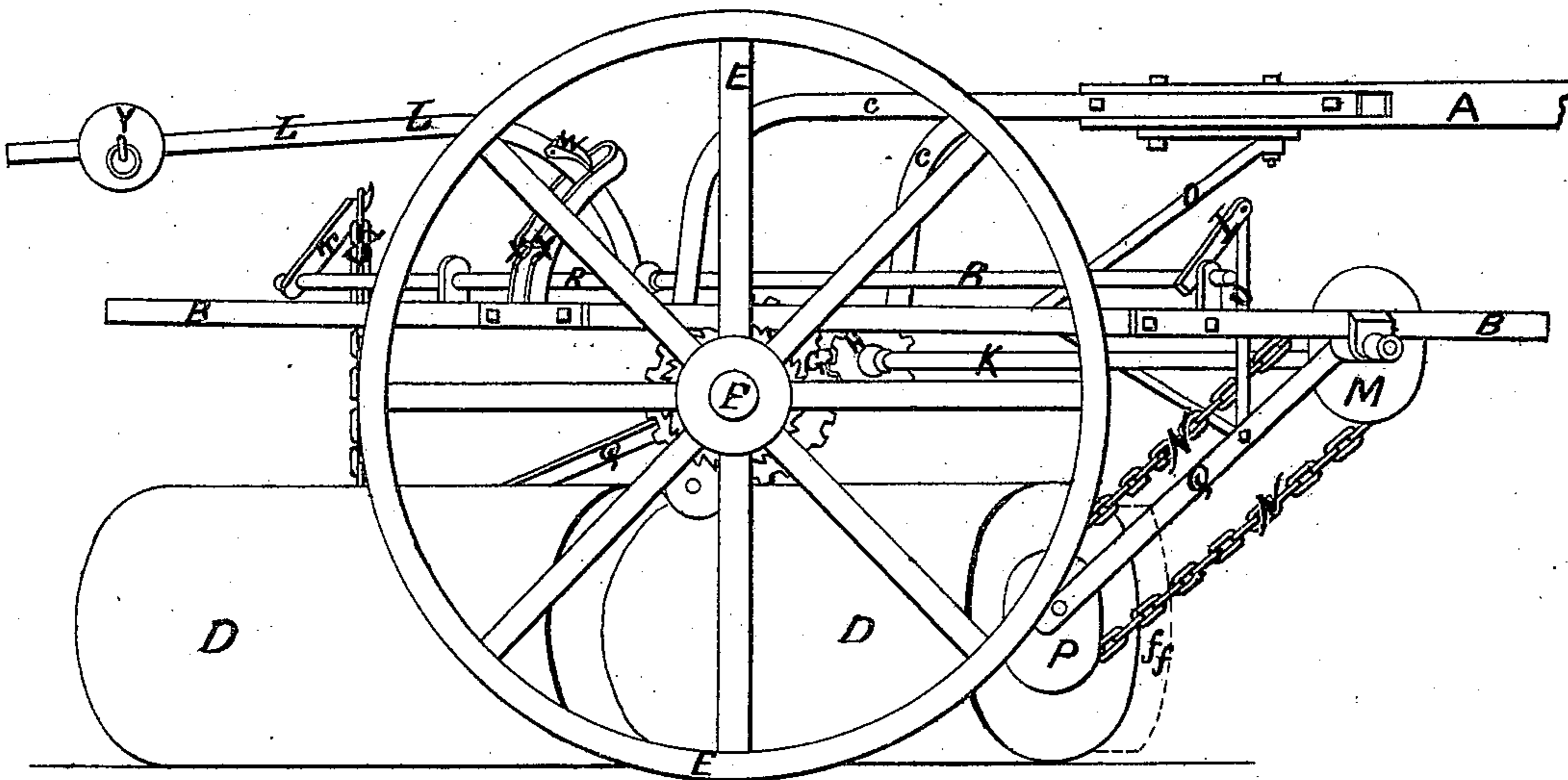
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Detail of Brushes.

Fig. 2.



Witnesses.

Wm. Watson Junr.
Wm. Harton

Inventor.

William Smith

UNITED STATES PATENT OFFICE.

WILLIAM SMITH, OF BARNARD CASTLE, ENGLAND.

IMPROVEMENT IN STREET-SWEEPERS.

Specification forming part of Letters Patent No. **141,241**, dated July 29, 1873; application filed March 18, 1873.

To all whom it may concern:

Be it known that I, WILLIAM SMITH, of Barnard Castle, in the county of Durham, in the United Kingdom of Great Britain, have invented certain new and useful Improvements in Street-Sweepers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making a part of this application.

Figure 1 represents a plan of the machine. Fig. 2 represents a side elevation of the machine.

My invention consists, first, in pivoting or linking the brushes at or near the center of their aggregate length, so that they may be free to adapt themselves to any inequalities in the surface of the street, whether said brushes be arranged parallel with or at an angle to the axis of the draft-wheels; second, in the combination and arrangement of the brushes with the peculiar means and devices by which the said brushes are capable of vertical adjustment by their own weight, or by which they may be counterbalanced or entirely lifted up from the road-bed, as will be hereinafter set forth; third, in the diagonal frame, arranged with its ends parallel with the line of draft, as will be hereinafter set forth.

In the accompanying drawings, A A is the hauling-frame, attached to the frame B B by means of the iron bars C C. The frame B B is so constructed as to permit of the brushes D D being placed at an angle with the direction in which the machine is drawn along the road. E E are the supporting-wheels, and F F the axle. The axle F revolves with the wheels E E, carrying around with it the beveled wheel G. The beveled wheel G turns the smaller beveled wheel H, which carries round with it the axle K K and the pulley M, Fig. 2. The pulley M carries round with it the endless chain N N, which turns the pulley P P. The pulley P is fastened to the axles of the brushes D D, causing the brushes to revolve along the road. Q Q Q are three bars attaching the brushes D D to the axles F and K, and are in a horizontal or slanting position, according as the brushes D D are raised or lowered. The bars Q Q Q move freely upon pivots, so as to permit them to rise or fall. L L is a lever attached to the bar K R. By pressing down the lever L the bars Q Q

are raised by means of the chain S attached to the small bar T, and also the rod U attached to the small bar I. When the bars Q Q are raised by means of the lever L they raise the brushes D D from the ground. If the brushes D D require to be kept raised for some time the lever L may be fastened down by placing the catch W in the notches X X.

To increase or decrease the pressure of the brushes D D upon the road, the balance-weight Y is moved backward and forward upon the lever L.

Z Z are notched wheels, which receive a catch attached to the driving-wheels E E, which enable the machine, at any time, to be thrown in or out of gear. O O O O are stays used to strengthen the frame B B. b is a joint in the brushes D D, which enables them to bend to the curvature of the road. f f is a curved iron plate fixed in front of the brushes D D, to prevent the mud or dust from being thrown up against the machinery.

Having thus described the nature and object of this invention, what I claim is—

1. The brushes D D, pivoted or linked together at or near the center of their aggregate length, so that they are free to adapt themselves to any inequalities in the surface being operated upon, whether said brushes be arranged parallel with or at an angle to the axis of the draft-wheels E, substantially as shown and described.

2. The combination of the linked brushes D D with the bars Q Q Q, arranged as described, the bar R, chain S, lever L, weight O, and pawl and ratchet w x, so that the brushes are free to adapt themselves to the road-bed by their own weight, or to be counterbalanced or entirely lifted from the road, substantially as herein shown and described.

3. The diagonal frame B, arranged with its ends parallel with the line of draft, as herein shown and described.

In witness whereof I have hereunto set my hand and seal this fifteenth day of February, one thousand eight hundred and seventy-three.

WILLIAM SMITH. [L. S.]

Witnesses:

WM. WATSON, Jr.,
Solicitor, Barnard Castle.

WM. WHARTON,
His Clerk, Barnard Castle.