No. 631,096. Patented Aug. 15, 1899.

J. G. SMITH.

STREET CLEANING DEVICE.

(Application filed Jan. 7, 1899.)

(No Model.)

Fig. 1.

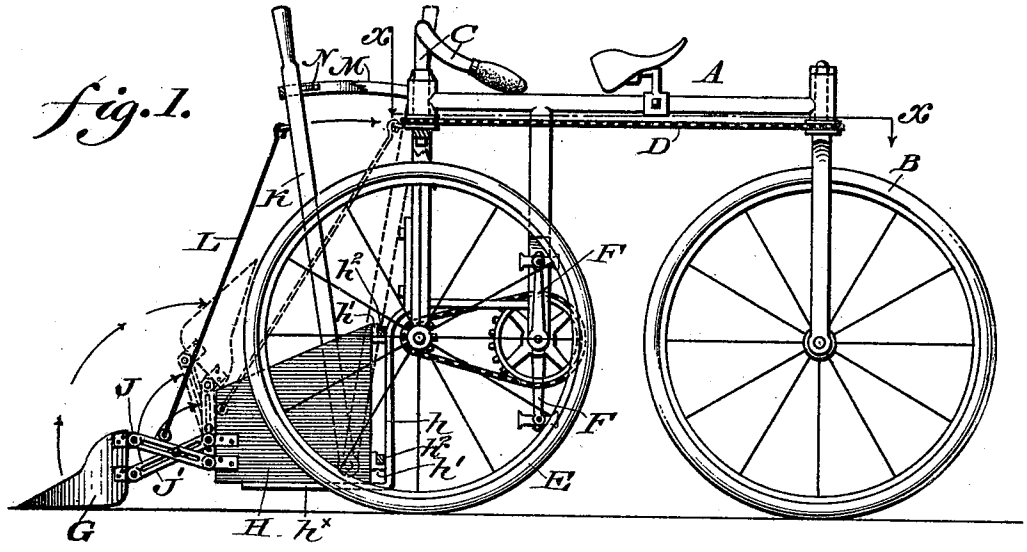



Fig. 4.

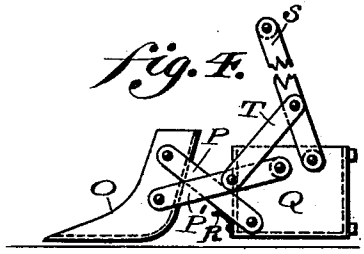
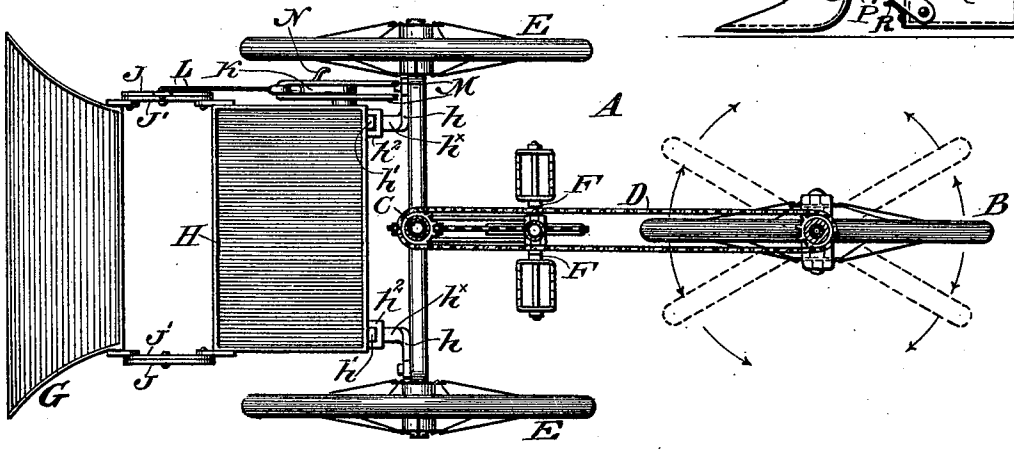



Fig. 2.




Witnesses
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Fig. 3.

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# UNITED STATES PATENT OFFICE.

JAMES G. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

## STREET-CLEANING DEVICE.

SPECIFICATION forming part of Letters Patent No. 631,096, dated August 15, 1899.

Application filed January 7, 1899. Serial No. 701,455. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES G. SMITH, 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-Cleaning Devices, which improvement is fully set forth in the following specification and accompanying drawings.

This invention has reference to street-cleaning machines of the class comprising a tricycle or similar vehicle provided in front with a scraper to collect the dirt; and it consists in a novel structure embodying a tilting scraper that empties into a suitable receptacle carried by the machine.

The invention further consists in the details of construction hereinafter fully described and specifically claimed.

Figure 1 is a side elevation, partly in section, of a street-cleaning machine constructed in accordance with my invention. Fig. 2 is a horizontal section on the line $x\ x$ of Fig. 1. Fig. 3 is a horizontal section of the guide and latch for the operating-lever of the tilting scraper. Fig. 4 is a side elevation of a modified construction embodying my invention.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a tricycle forming a part of the street-cleaning device, the rear steering-wheel B being geared to the handle C by means of the sprocket-chain D, and the front driving-wheels E being suitably geared to pedals F. The street-cleaning devices proper consist of a dumping or tilting scraper G and a receptacle H, carried at the front of the velocipede. The receptacle H is carried by suitable hangers $h$, said hangers having the lower horizontal arms $h^{\times}$ and the hooks $h'$ upon their upright portions, the receptacle H having loops $h^2$, receiving the hook $h'$ when it rests upon the arms $h^{\times}$.

The scraper G is mounted upon the front end of the receptacle H and is constructed to dump or tilt rearwardly and into the same, being controlled by a suitable operating-lever K, extending upward and convenient to the rider. In Figs. 1, 2, and 3 the scraper G is carried by crossed links J and J', pivotally secured to the scraper and to the receptacle. The links are situated at the sides of the scraper and receptacle, links J being pivoted above links J' upon the scraper and reversely upon the receptacle H to secure the tilting or dumping of said scraper, as shown in dotted lines in Fig. 1, when the same is swung upwardly upon said links.

The scraper is tilted by means of an operating-lever K, pivoted at its lower end to the frame of the machine and connected by a rod L with a link J. The upper end of the lever K is situated near the handle-bar C and passes through a guide M, fastened to the frame. When the lever K is at the outer end of the guide, the front edge of the scraper rests upon the pavement and operates in this position, and to hold the scraper G slightly elevated when the device is not in operation the said guide is provided with a spring-catch N, as shown in Fig. 3, that engages the lever K when the same is moved sufficiently to raise the front edge of the scraper.

The operation is as follows: During operation the front edge of the scraper rests upon the pavement, the operator propelling and guiding the machine to collect the dirt and refuse in an obvious manner. To empty the contents of the scraper into the receptacle, the lever K is pulled to the rear and the scraper is raised and tilted to the rear, as shown in dotted lines in Fig. 1.

In the modification shown in Fig. 4 the scraper O is supported by links P and P', pivoted thereto and to the receptacle Q, as above described. The scraper O is sustained a little distance above the pavement by resilient supports, conveniently springs R, mounted upon the receptacle and bearing against the lower edge of the links P. An operating-lever S is pivoted to the receptacle Q and is connected with the links P' by links T.

Normally the front edge of the scraper is elevated a little distance, as shown in Fig. 4, and in operation the lever S is moved forward to depress the front edge thereof against the pavement, the springs yielding, as is obvious. To empty the scraper, the lever S is moved to the rear to raise and tilt the same in the manner described above and shown in Fig. 1.

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

1. In a street-cleaning machine, a vehicle

having a receptacle at the front end thereof, a forwardly-extending scraper supported adjacent thereto by crossed links pivoted to said scraper and to a suitable support, and means for elevating said scraper, the pivots of said links being situated to cause said scraper to tilt over said receptacle.

2. In a street-cleaning machine, a vehicle having a receptacle, a forwardly-projecting tilting scraper, a resilient support for said scraper, and means for depressing said scraper against its resilient support and for tilting the same over said receptacle.

3. In a street-cleaning machine, a vehicle having a receptacle, a forwardly-projecting scraper supported by links pivoted thereto and to a suitable support, springs engaging said links and sustaining said scraper, and a lever connected with said links for depressing and raising the scraper, the pivots of said links being situated to cause said scraper to tilt over said receptacle.

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