

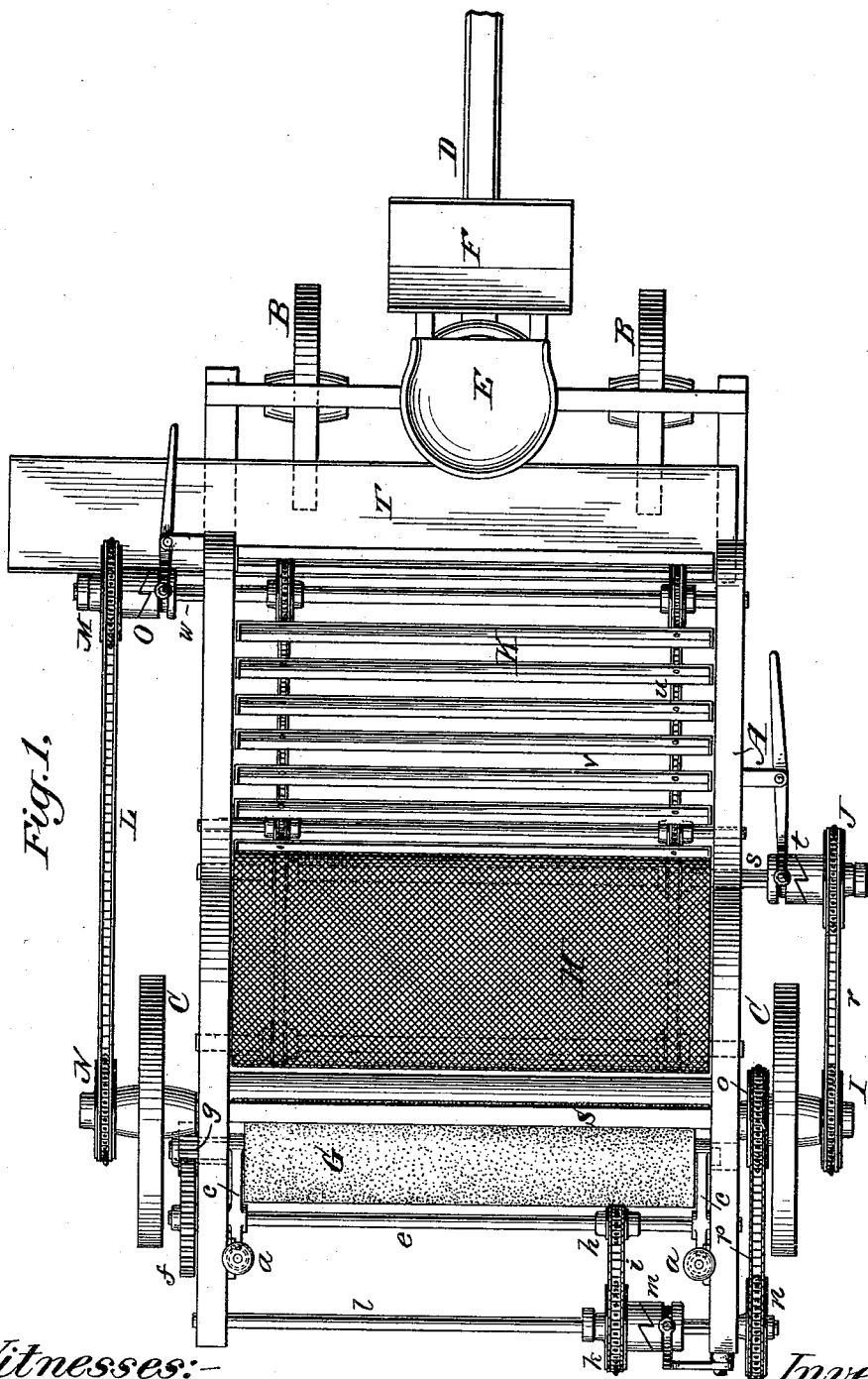
(No Model.)

2 Sheets—Sheet 1.

R. F. REAGAN.
STREET SWEEPER.

No. 542,808.

Patented July 16, 1895.



Witnesses:—

Wm. Williamson
G. Goddard.

Inventor:

Robert F. Reagan.
per Cha. H. Fowler.
Attorney.

(No Model.)

2 Sheets—Sheet 2.

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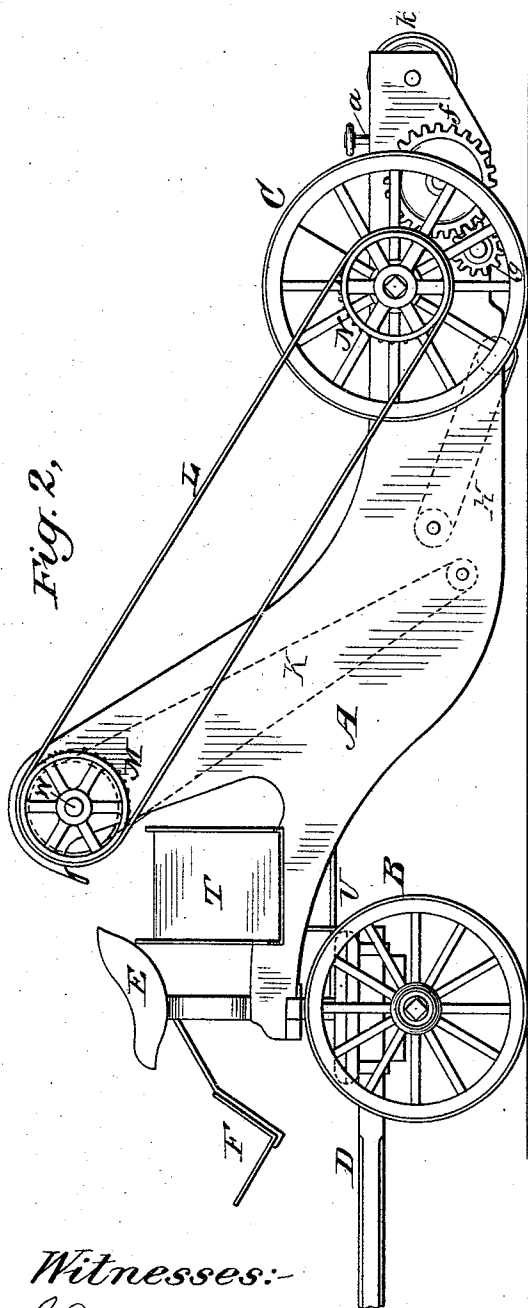


Fig. 2,

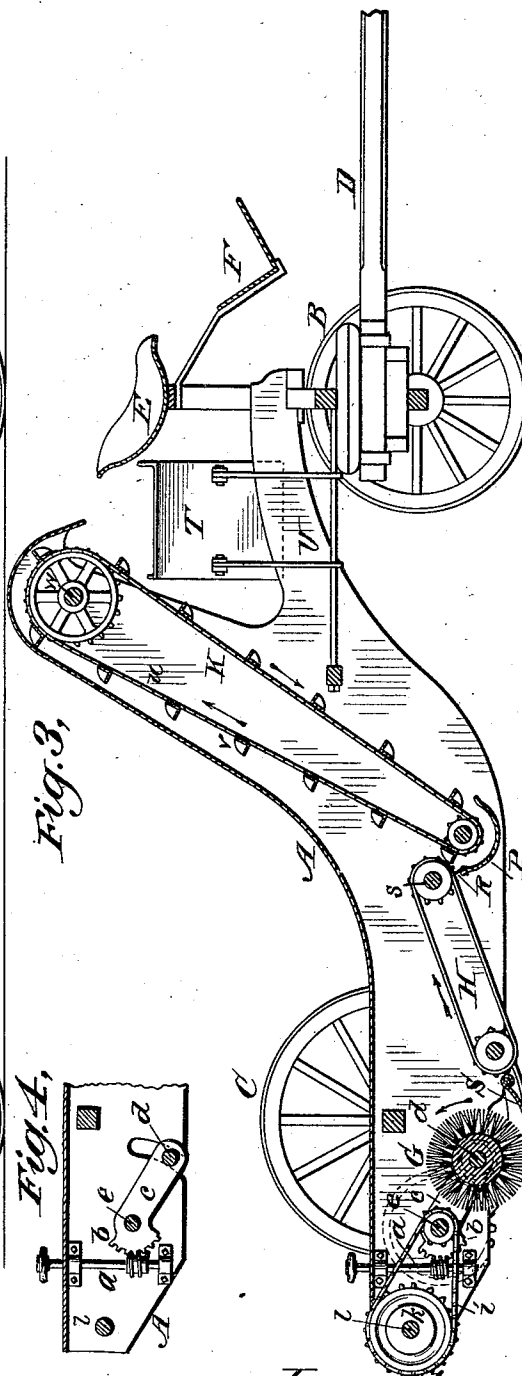


Fig. 3,

Fig. 4.

Witnesses:-
E. Williamson.
G. Goddard.

Inventor:-
Robert F. Reagan,
per *Chas. N. Fowler,*
Attorney.

UNITED STATES PATENT OFFICE.

ROBERT FRANCIS REAGAN, OF NEW BRIGHTON, NEW YORK.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 542,808, dated July 16, 1895.

Application filed July 21, 1894. Serial No. 518,167. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FRANCIS REAGAN, a citizen of the United States, residing at New Brighton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Street-Sweepers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of street-sweeping machines in which the revolving brush obtains its motion through suitable mechanism connecting with the driving-wheels of the machine.

It is the object of the invention to provide such a machine as will be simple in its construction and effective in its operation of gathering, taking up, and collecting dirt and matter that are necessary to be removed from the surface of the streets and roadways, in order that the same may present a clean and neat appearance.

The invention consists in a street-sweeping machine constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a top plan view of a street-sweeping machine constructed in accordance with my invention, the top being removed; Fig. 2, a side elevation of the machine; Fig. 3, a longitudinal vertical section thereof taken through the center of the machine.

In the accompanying drawings, A represents a suitable casing, which may be of any preferred construction necessary to inclose the several operating parts of the machine hereinafter described. This casing is supported by the driving-wheels B C at the front and rear of the machine respectively and connected thereto in any well known and desirable manner. A tongue or pole D is provided, to which the team may be connected, and a seat E and foot-rest F are located at the front of the machine for the convenient use of the driver.

So far as the description of the machine has extended, the features above described are in common use and may be modified or changed

as circumstances require without in any manner departing from the principle of the invention.

The brush G may be of any preferred construction and formed of wire, whalebone, rattan or of any other material found most desirable, and is rendered vertically adjustable to compensate for the wear of the brush.

Any suitable means may be employed for varying the height of the brush, and in the present instance I have shown a worm-shaft *a* which engages with a toothed segment *b* upon the end of a hanger *c*. These hangers, with their toothed segments, are located upon each end of the brush G, the hangers forming bearings for the ends of the shaft *d* of the brush, whereby the brush may be raised or lowered by turning the worm-shafts *a*. The hangers *c* are loosely connected to a transverse shaft *e*, which shaft at one end has a gear-wheel *f* to mesh with the teeth of a pinion *g* upon the end of the brush-shaft *d*, whereby motion is imparted to the brush through intermediate connections with the driving-wheels. The shaft *e* has a sprocket-wheel *h* with which engages a sprocket-chain *i*, said chain also engaging with a sprocket-wheel *k* upon the transverse shaft *l*. The shaft *l* has a suitable clutch-box *m* for engaging or disengaging the sprocket-wheel *k* with said shaft, said shaft at one end extending out beyond the casing A and has connected thereto a sprocket-wheel *n*, which sprocket-wheel connects with a sprocket-wheel *o* upon the hub of one of the rear drive-wheels C, through the medium of the sprocket-chain *p*.

The gear-wheel and pinion, also the several sprocket-wheels and chains, above described, provide means for imparting to the brush a rotary motion when the drive-wheels of the machine revolve. Immediately in front of the brush G is a suitable conveyer H, which conveyer is operated by means of the sprocket-chain *r* connecting the sprocket-wheels I J. The sprocket-wheel I connects with the hub or axle of the wheel C, and the sprocket-wheel J is mounted upon the shaft *s* of the conveyer H and is engaged therewith so that it will turn said shaft by means of a clutch-box *t* of the ordinary construction.

The elevator K is of the usual construction,

consisting of endless bands *u* and buckets *v* of any suitable form, said bands extending over suitable wheels upon transverse shafts in the usual manner.

5 Motion is imparted to the elevator *K* by means of the sprocket-chain *L* engaging with the two sprocket-wheels *M N*, which are, respectively, upon the shaft *w* of the elevator and upon the hub or axle of the wheel *C*. The
10 sprocket-wheel *M* is made to engage with the shaft *w* by means of the clutch-box *O*. These several clutch-boxes herein described may be of any of the usual forms and operate in the same manner as those in ordinary use for the
15 purpose of engaging or disengaging the sprocket-wheels with their shafts.

The means employed for operating the brush, the conveyer, and the elevator may be variously modified or changed, as found desirable, or any suitable gearing may be substituted for the sprocket-wheels and chains.

The brush, the conveyer, and also the elevator, may be of any preferred construction, and consequently any further description
25 thereof is considered unnecessary.

Immediately under the lower end of the elevator *K* is an apron *P* to receive the dirt from the conveyer previous to its being carried up by the elevator, and a scraper *R* of rubber or
30 other material is connected to the apron, which removes any dirt remaining upon the under side of the conveyer-belt.

A pivoted or hinged dirt-pan *S* is located between the brush and conveyer to catch any
35 dirt from the brush that does not pass onto the conveyer and thereby prevent the dirt from falling back on the ground or roadway.

The employment of the conveyer *H* in connection with the elevator is considered of material importance in rendering the machine
40 more perfect in its operation, as it has been found impractical to deliver the dirt directly from the brush to the elevator, as much of the dirt would be lost or fall back from the brush,

consequently resulting in the imperfect cleaning of the street or roadway. 45

After the dirt is swept up by the brush and delivered to the conveyer, and from the conveyer deposited in the apron and taken therefrom by the elevator, the dirt passes from the
50 elevator into a chute *T*, and from the chute to a cart or wagon driven alongside the machine. This chute is hinged or pivoted to a suitable frame *U* to adapt it for use upon either side of the machine, so that the dirt therefrom may
55 be delivered to the cart either upon the right or left hand side of the machine, the chute being tipped bodily upon its hinged or pivoted connection from one side of the machine to the other to bring it in position for use. 60
This is an additional feature of the invention which is considered of material importance in rendering the machine effective in its purpose.

Having now fully described my invention, 65 what I claim as new, and desire to secure by Letters Patent, is—

In a street sweeper, a casing, driving wheels *C*, one being provided with a sprocket wheel *o*, a chain *p*, a sprocket *n*, a shaft *t*, provided
70 with a sprocket wheel *h*, and the gear wheel *f*; the hangers *c*, journaled upon the shaft *e* and provided with toothed sectors upon their rear ends, the shaft *d*, journaled in the hangers and having its ends projecting through
75 curved slots in the casing, one of the ends being provided with a pinion *g* meshing with gear wheel *f* the brush placed upon the shaft *d*; worm gears journaled in the casing and working in the toothed sectors, whereby the
80 brush can be raised or lowered.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROBERT FRANCIS REAGAN.

Witnesses:

WILLIAM JOHN REAGAN,
THOMAS BISHOP.