

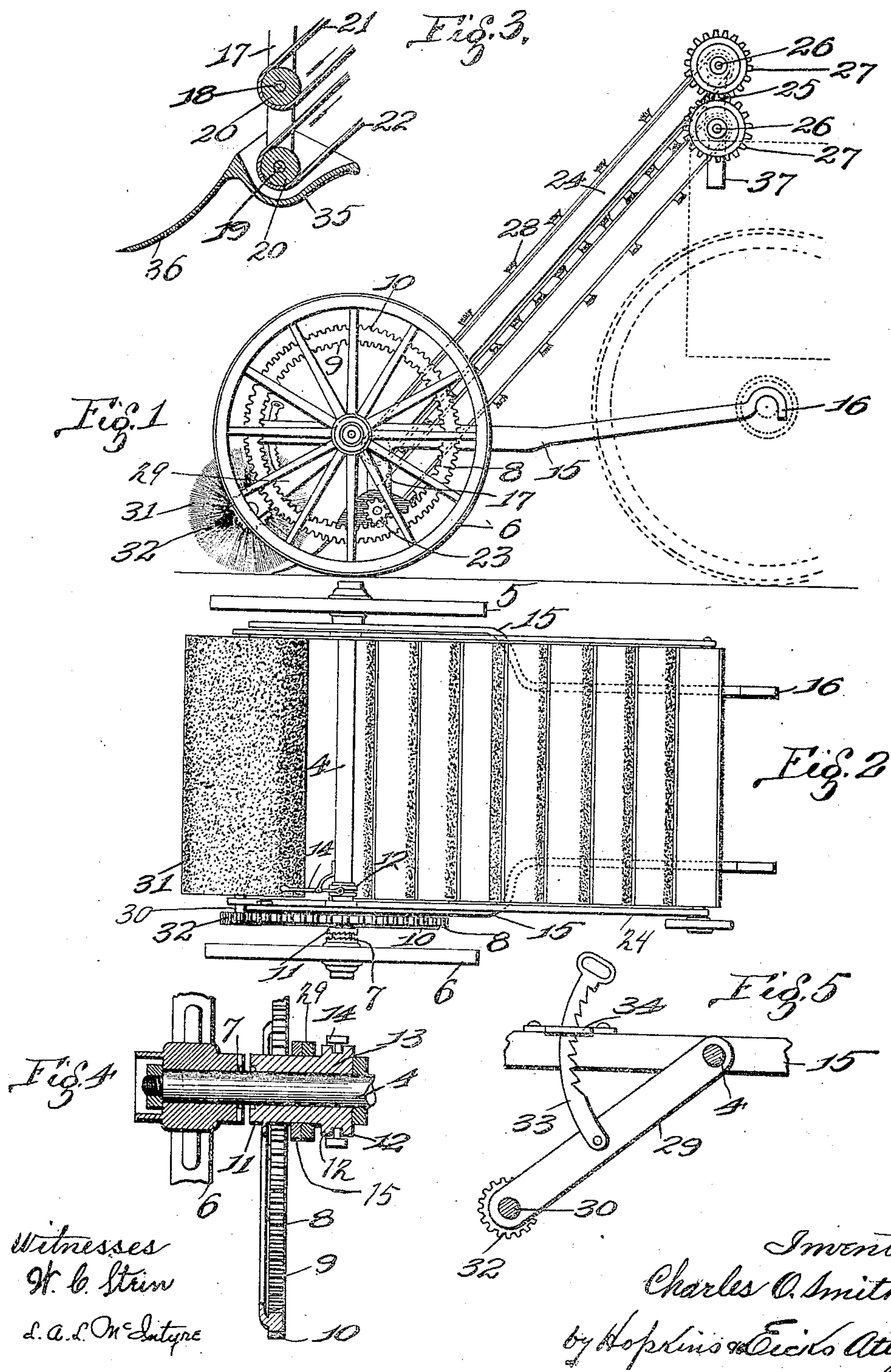
No. 886,430.

PATENTED MAY 5 1908.

C. O. SMITH.

STREET SWEEPER.

APPLICATION FILED SEPT. 4, 1906.



UNITED STATES PATENT OFFICE.

CHARLES O. SMITH, OF ST. LOUIS, MISSOURI.

STREET-SWEEPER.

No. 886,430.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed September 4, 1906. Serial No. 333,165.

To all whom it may concern:

Be it known that I, CHARLES O. SMITH, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Street-Sweepers, of which the following is a specification.

This invention relates to an improvement in street sweepers, and consists of the novel arrangement, construction and combination of parts as will be fully hereinafter described and claimed.

The object of the invention is to construct a street sweeper to be attached to the rear end of a wagon, whereby the sweepings are collected and conveyed into the body of the wagon while the device is being propelled along the street.

In the drawings—Figure 1 is a side elevation of my complete invention. Fig. 2 is a top plan view of the same. Fig. 3 is a detail sectional view of a portion of the conveyer and the trough in which the sweepings are collected before being conveyed into the body of the wagon. Fig. 4 is a detail enlarged sectional view of the clutch mechanism by which the gear-wheel is brought into communication with the wheels of the sweeper. Fig. 5 is a detail view of the brush adjusting mechanism.

In the construction of my invention I provide an immovable axle 4, supported upon two wheels 5 and 6, and on the hub of the wheel 6 I provide a clutch member 7. Upon the axle 4 I provide a gear-wheel 8 having internal gear-teeth 9, and external gear-teeth 10, and on the hub 13 of the gear-wheel 8, I provide a clutch member 11, which is arranged to engage with the clutch member 7 of the wheel 6.

The inner portion of the hub 13 of the gear-wheel 8 is provided with collars 12, and the hub is slidably mounted upon the axle 4, and between said collars 12 is located a bifurcated lever 14 by which the gear-wheel 8 is thrown in and out of connection with the wheel 6.

Upon the axle 4 I provide a frame 15, the front end of said frame being provided with hooks 16, by which the said frame is attached to the rear axle of any ordinary wagon, and by this manner the device is propelled over the street, a portion of the wagon being shown by dotted lines in Fig. 1.

The frame 15 is provided with downwardly projecting arms 17, which act as bearings for

the shafts 18 and 19, on which are mounted rollers 20 for supporting and operating the endless conveyers 21 and 22. Upon the shaft 19 I provide a gear-pinion 23, which meshes with the internal gear-teeth 9 of the gear-wheel 8, and by which the endless conveyers are placed in operation. The endless conveyers are located at an angle as shown in Fig. 1, and the upper ends are supported by the side frames 24 and to each side of the side frame is provided a downwardly projecting arm 25. In the side frames 24 and in the lower end of the projecting arms 25 are provided shafts 26, on which are also mounted rollers over which the endless conveyers operate, and on the ends of the shafts 26 are mounted gear-wheels 27 meshing together, and when placed in operation will revolve the endless conveyers in opposite directions.

Upon the endless conveyers are located dirt catchers 28, consisting of slats provided with bristles by which the sweepings are conveyed upwardly between the conveyers and discharged into the body of a wagon. Upon the axle 4, and on the inside of the frames 15, I provide arms 29 in the lower ends of which is supported a shaft 30, on which is located a revolving sweeper 31. The said sweeper is revolved by means of a gear-pinion 32 which meshes with the external gear-teeth 10 of the gear-wheel 8, and is revolved in opposite direction to the movement of the sweeping device. The arms 29 are each provided with tooth-segments 33 pivotally attached thereto and which engage with locking teeth 34 secured on the projecting ends of the frame 15 and by means of the segments 33, the revolving sweeper may be elevated from the street level when so desired.

To the lower arms 17 I provide a trough 35 from which projects a curved guide 36, its lower end coming in close contact with the rotary sweeper 31 in order to catch the sweepings and permit the same to be lodged within the trough 35 from whence the sweepings are carried into the conveyer by the catchers and deposited in the body of the wagon. The lower ends of the arms 25 are provided with lugs 37 which contact with the sides of the wagon body and support the conveyer retaining it in rigid position.

This device is constructed to be attached to any wagon and to be hauled thereby, and after the wagon has been filled with sweepings, the device can be readily removed and attached to an empty wagon.

Having fully described my invention, what I claim is:

A device of the class described comprising a frame carried by an axle mounted on two
5 wheels, an internal and external tooth gear-wheel slidably arranged upon said axle, a clutch mechanism for engaging and disengaging with one of the wheels on the axle, a
10 rotary sweeper located to the rear of said axle and operated by the external teeth of the gear-wheel, endless conveyers provided with brushes located in front of the axle and operated by the internal teeth of the gear-

wheel, a trough located beneath the conveyers to receive the sweepings from the rotary sweeper to be conveyed into the body of a wagon by the endless conveyer and arms for attaching the device to the rear end of a wagon, substantially as specified. 15

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses. 20

CHARLES O. SMITH.

Witnesses:

ALFRED A. EICKS,
WALTER C. STEIN.