

J. SUSZYCKI.
STREET SWEEPER.

APPLICATION FILED OCT. 16, 1912.

Patented May 13, 1913.

3 SHEETS-SHEET 1.

1,061,421.

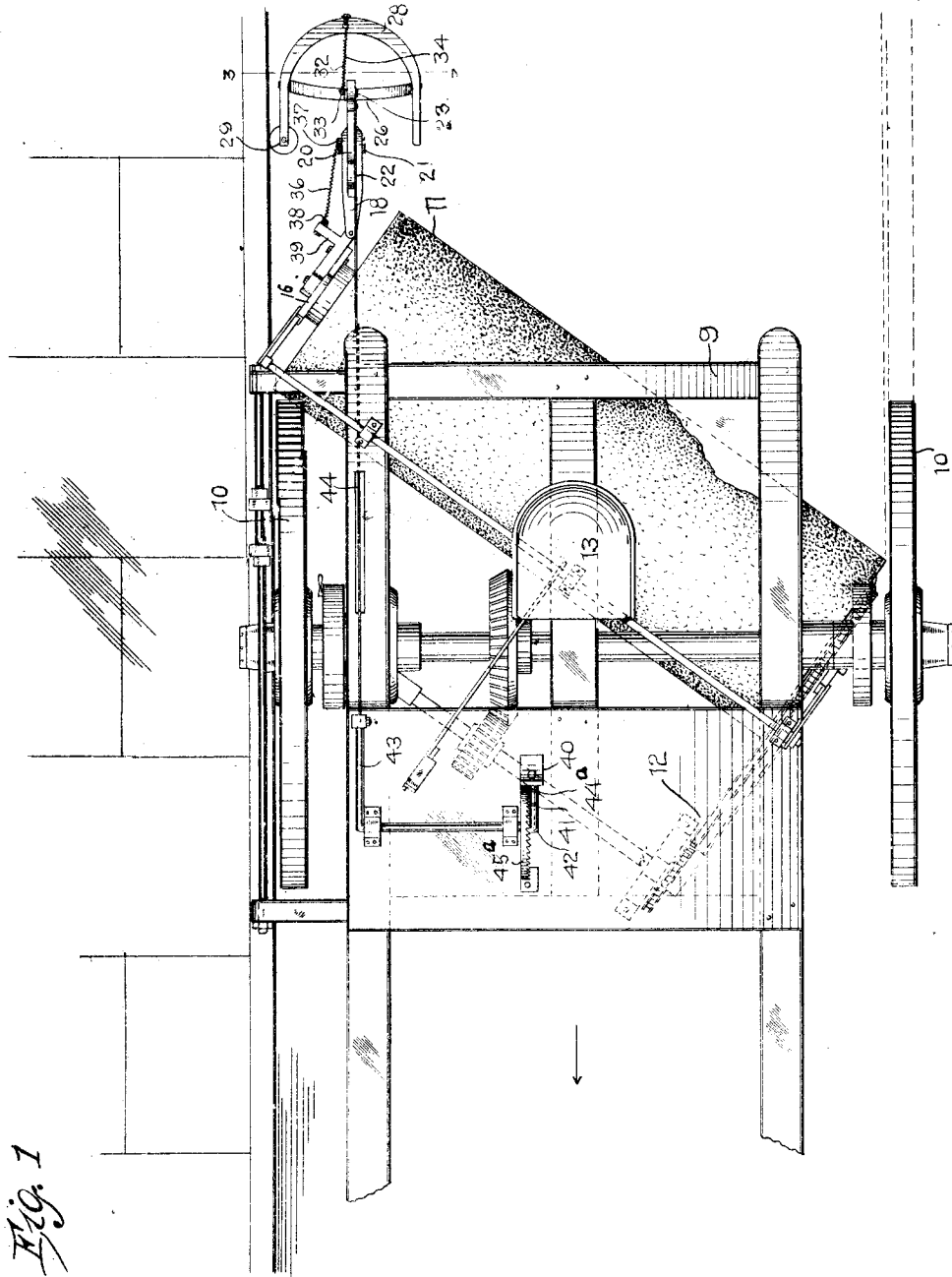


Fig. 1

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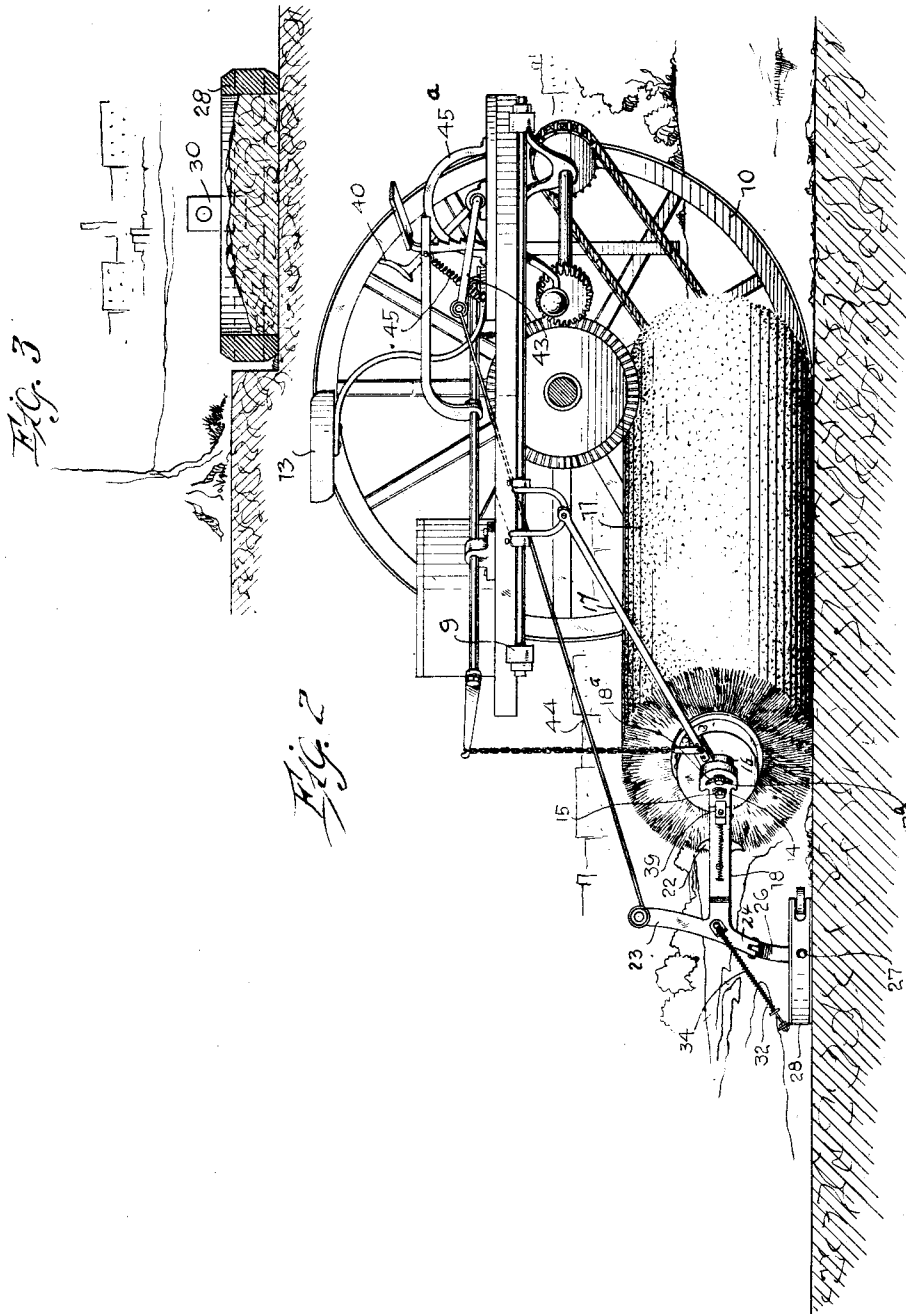
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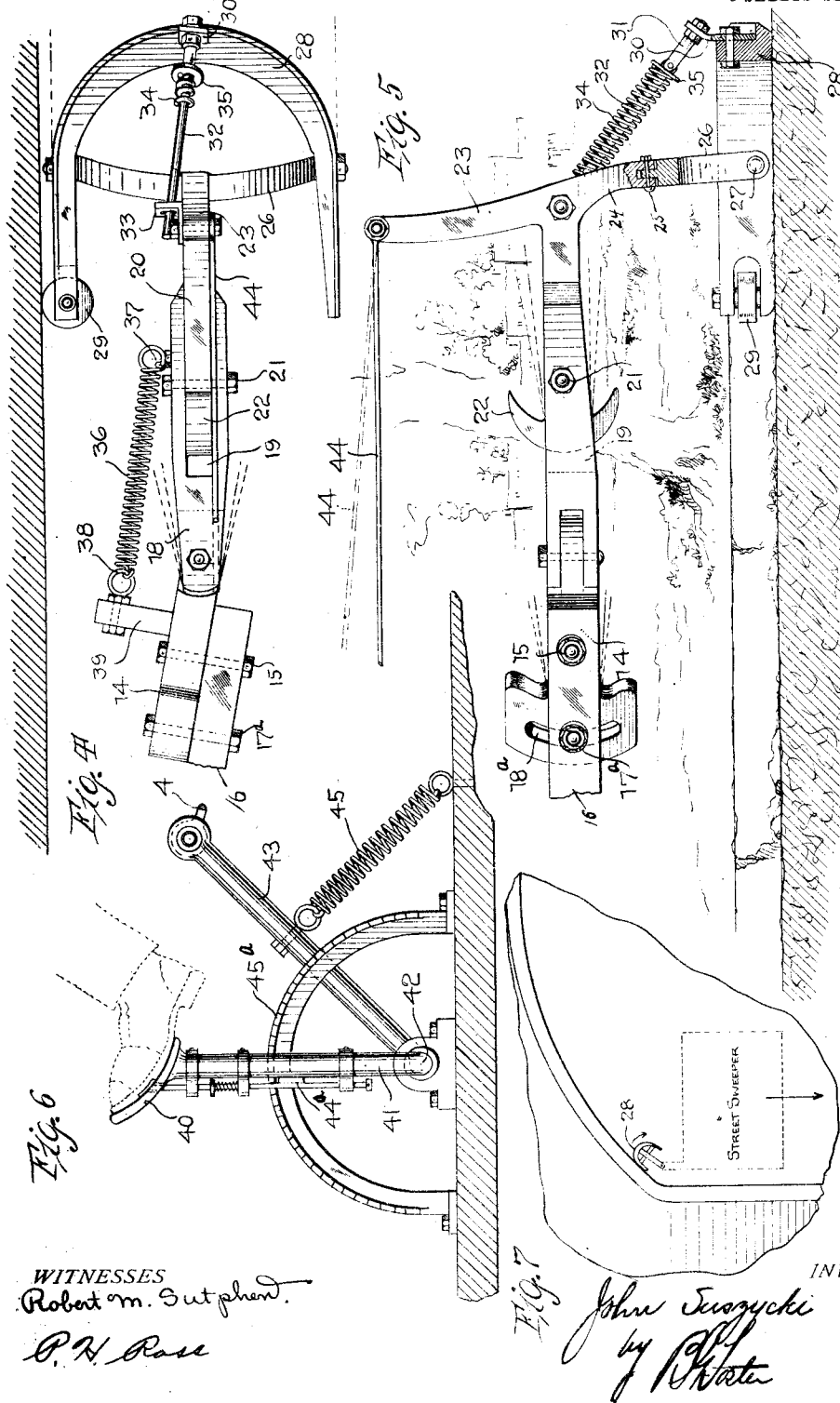
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UNITED STATES PATENT OFFICE.

JOHN SUSZYCKI, OF REEDSBURG, WISCONSIN.

STREET-SWEEPER.

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Specification of Letters Patent.

Patented May 13, 1913.

Application filed October 16, 1912. Serial No. 726,080.

To all whom it may concern:

Be it known that I, JOHN SUSZYCKI, a citizen of the United States, residing at Reedsburg, in the county of Sauk and State of Wisconsin, have invented new and useful Improvements in Street-Sweepers, of which the following is a specification.

The present invention relates to street sweepers or cleaners.

10 The primary object is to provide novel, simple and practical mechanism for collecting the sweepings into piles in the gutter, so that they may be more readily removed, and the services of workmen to manually
15 form the piles, can thus be eliminated.

A further object is to provide a structure of this character that will conform to the unevenness of the surface over which the same travels, and also to provide collecting
20 means that will properly traverse curves or inequalities, due to the curbing and the like.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:—

25 Figure 1 is a plan view of one type of street sweeping machine, showing the invention applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a detail sectional view on the line 3—3 of Fig. 1.
30 Fig. 4 is a detail plan view of the collector and its supporting means. Fig. 5 is a longitudinal sectional view therethrough. Fig. 6 is a detail view, showing one form of treadle for elevating the collector, and Fig.
35 7 is a diagrammatic view, illustrating how the device will conform to curves, and still operate properly.

Similar reference numerals designate corresponding parts in all the figures of the
40 drawings.

The sweeper may be of any desired or well known type, and in the present embodiment, comprises a suitable main frame 9, supported on wheels 10, and carrying an
45 inclined rotary brush 11, driven through suitable gearing, designated generally by the reference numeral 12. The driver's seat is illustrated at 13. So far as thus disclosed, this structure is well known.

50 Mounted at the discharge end of the brush, is a bracket 14, this bracket, in the present embodiment, being shown as pivoted by a bolt 15 to the bearing member 16 of the brush, which bearing member is con-

nected to an arm 17 extending from the main frame. It will of course be understood that the bracket can be supported by any desired means. It is normally held in fixed relation by a bolt 17^a passing through a curved slot 18^a, the radius of which is the center of the pivot bolt 15. By means of the nut on the bolt 17^a, the said bracket can be held against movement in any desired adjusted position. A laterally or horizontally
55 swinging arm 18 is pivoted to the rear end of the bracket, and as shown more particularly in Fig. 5, this arm 18 has its rear end bifurcated as illustrated at 19 to receive a vertically swinging arm 20, pivoted in the bifurcation by the bolt 21. The front of
60 the arm has an arc-shaped guide 22, and its rear end, which extends beyond the arm 18, has an upward projecting portion 23 and a depending projecting portion 24. Pivotally connected to the depending portion
65 24 by a bolt 25, is a bail 26, to the ends of which are pivotally connected, as shown at 27, the side arms of a substantially U-shaped collector or scraper 28, the arms of which extend forwardly in rear of the dis-
70 charge end of the brush, one arm slightly overlapping the point or line of discharge, as will be clear by reference to Fig. 1. The other arm is provided at its front end with a horizontally disposed roller 29 that is ar-
75 ranged to operate against the curb of the street being swept, as will be clear by reference to Figs. 1 and 5.

In order to maintain the collector 28 flat against the surface over which it travels,
80 the following mechanism is preferably employed: An ear 30 is secured to the rear central portion of the collector and extends slightly above the same, being rearwardly inclined. To this ear is bolted a stem 31, to
85 the upper end of which is pivoted a rod 32. This rod slidably passes through another ear 33, mounted on one side of the rearwardly extending arm 20. A coiled spring 34, surrounding the rod 32, bears at one
90 end against the ear 33, and at its other end against a collar 35, located at the joint between the rod and stem. This spring, it will be evident, serves to urge the parts
95 downwardly, and yet permits a yielding play, so that any roughness or obstruction can be passed over, without injuring the parts. The collector is also yieldingly held

against the curb, and to this end, a coiled spring 36 is employed, one end being connected to the rear portion of the laterally or horizontally swinging arm 18, as shown at 5 37, the other end being attached to an eye 38, fastened in an outstanding finger 39 that is carried by the adjustable bracket 14. The action of this spring is to swing the arm 18, and consequently the collector toward the curb, as will be obvious.

In order to raise the collector 28 for the purpose of discharging the material in piles, or to hold the collector out of action when the sweeping mechanism is inactive, a treadle or foot-piece is located in convenient relation to the foot of the driver, and in the present embodiment, such a foot-piece or treadle is shown at 40, being carried by a crank arm 41 that forms a part of a rock shaft 42 journaled on the platform of the machine. Another crank arm 43, carried by said rock shaft, is connected to the upstanding projection 23 of the arm 20 by a link 44. A spring 45, in the present embodiment shown as connected to the arm 43, serves to hold said arm 43 in its rearmost position in order that the collector may properly operate, but a suitable dog 44^a associated with the treadle is employed to engage a rack bar 45^a, in order that the arm 43 and consequently the collector may be held elevated if desired. It will, of course, be understood that the particular type of dog 44^a and the arrangement of the spring 45 may be changed, as desired.

With this structure, it will be clear that as the machine progresses, the sweepings will be delivered by the brush into the path of the collector, and at suitable intervals, the driver has only to press upon the treadle 40 to elevate the collector, and thus discharge the collected sweepings in piles. The said collector because of its mounting is permitted to have play in various directions, and yet is yieldingly maintained in properly operative position, at all times. Thus, the inequalities and roughness are accommodated, and should the collector strike an immovable obstruction, it will yield and pass the same without being materially injured.

From the foregoing, it is thought that the construction, operation and many advantages of the hereindescribed invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In collecting mechanism for street sweepers, the combination with a bracket, of means for connecting the front end of the same to the frame of a sweeper, a collector pivoted to said bracket on a substantially upright axis and being thus capable of swinging toward and from a curb, and yielding means between the bracket and collector for urging the same laterally toward the curb.

2. In collecting mechanism for street sweepers, the combination with a bracket, of means for connecting the front end of the same to the frame of a sweeper, a laterally swinging arm pivoted to the rear portion of the bracket, a vertically swinging arm pivoted to the laterally swinging arm, a collector mounted on the latter arm, a spring connected to the laterally swinging arm for urging the collector laterally toward a curb, means connected to the vertically swinging arm for elevating the collector, and means for mounting the elevating means on a sweeper.

3. In collecting means for street sweepers, the combination with a vertically adjustable bracket, of means for holding the bracket in different adjusted positions, a laterally swinging arm pivoted to the bracket, a vertically swinging arm pivoted to the laterally swinging arm, a substantially U-shaped collector connected to the vertically swinging arm, means for raising and lowering the arm and collector, and a spring connecting the bracket and laterally swinging arm for swinging the same toward the curb of the street being swept.

4. In collecting mechanism for street sweepers, the combination with a vertically movable member, of means for raising and lowering the same, a bail pivoted between its ends to the member and swinging thereon, and a scraper having spaced sides pivoted to the ends of the bail on an axis disposed at substantially right angles to the axis of the pivot connection between the bail and member.

5. In collecting mechanism for street sweepers, the combination with a vertically swinging arm, of means for raising and lowering the same, a bail pivoted between its ends to the arm on an axis disposed longitudinally of the arm, and a scraper having sides pivoted to the ends of the bail on an axis disposed transversely to the arm.

6. In collecting means for street sweepers, a bracket, means for adjustably pivoting the same to the frame of a sweeper, a horizontally swinging arm, a spring urging said bracket in one direction, a vertically swinging arm pivoted to the horizontally swinging arm and having an upstanding and a depending projection, a treadle having a link connection with the upstanding projection, a bail

secured to the depending projection, a substantially U-shaped collector having pivotal connections with the bail, a curb-engaging roller mounted on one side of the collector, and a spring-pressed rod interposed between the vertically swinging arm and the rear portion of the collector.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN SUSZYCKI.

Witnesses:

FRED STOLTE,

CHAS. H. STONE.
