

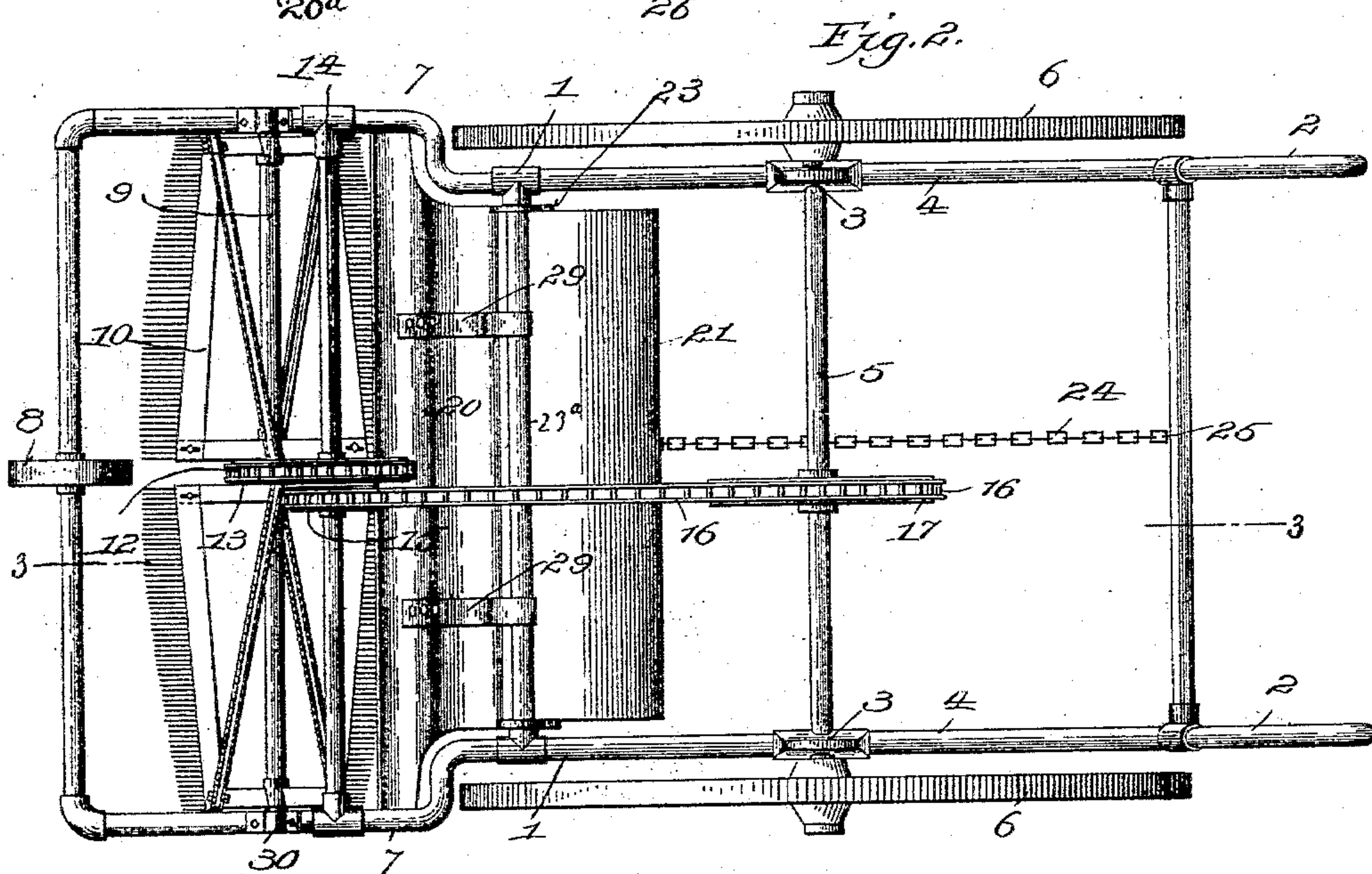
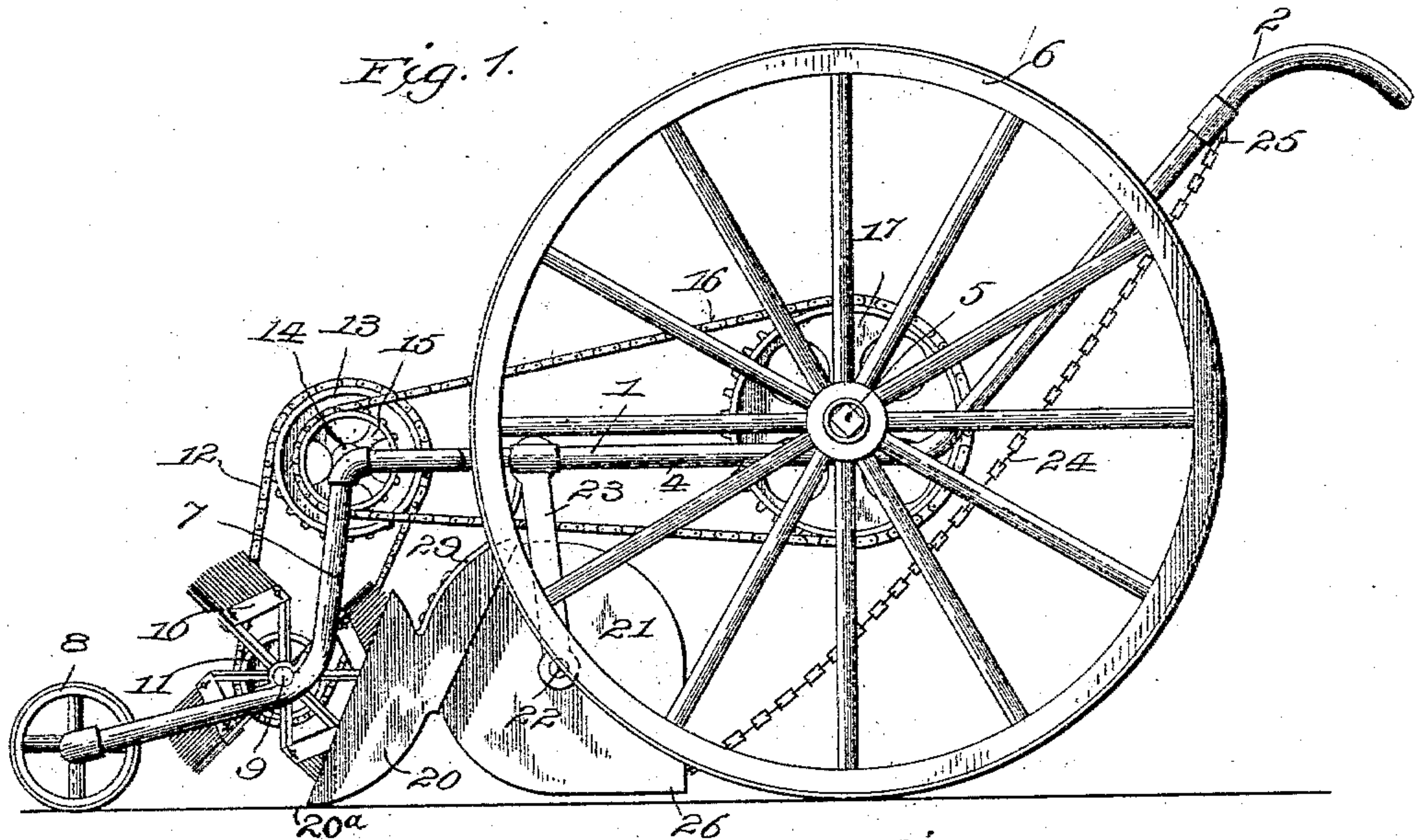
(No Model.)

3 Sheets—Sheet 1.

J. X. ROGERS.
STREET SWEEPER.

No. 548,659.

Patented Oct. 29, 1895.



Witnesses:

Harry S. Brown,
Walter E. Allen,

Inventor:

Joseph X. Rogers.

By Knight & Co. Attys.

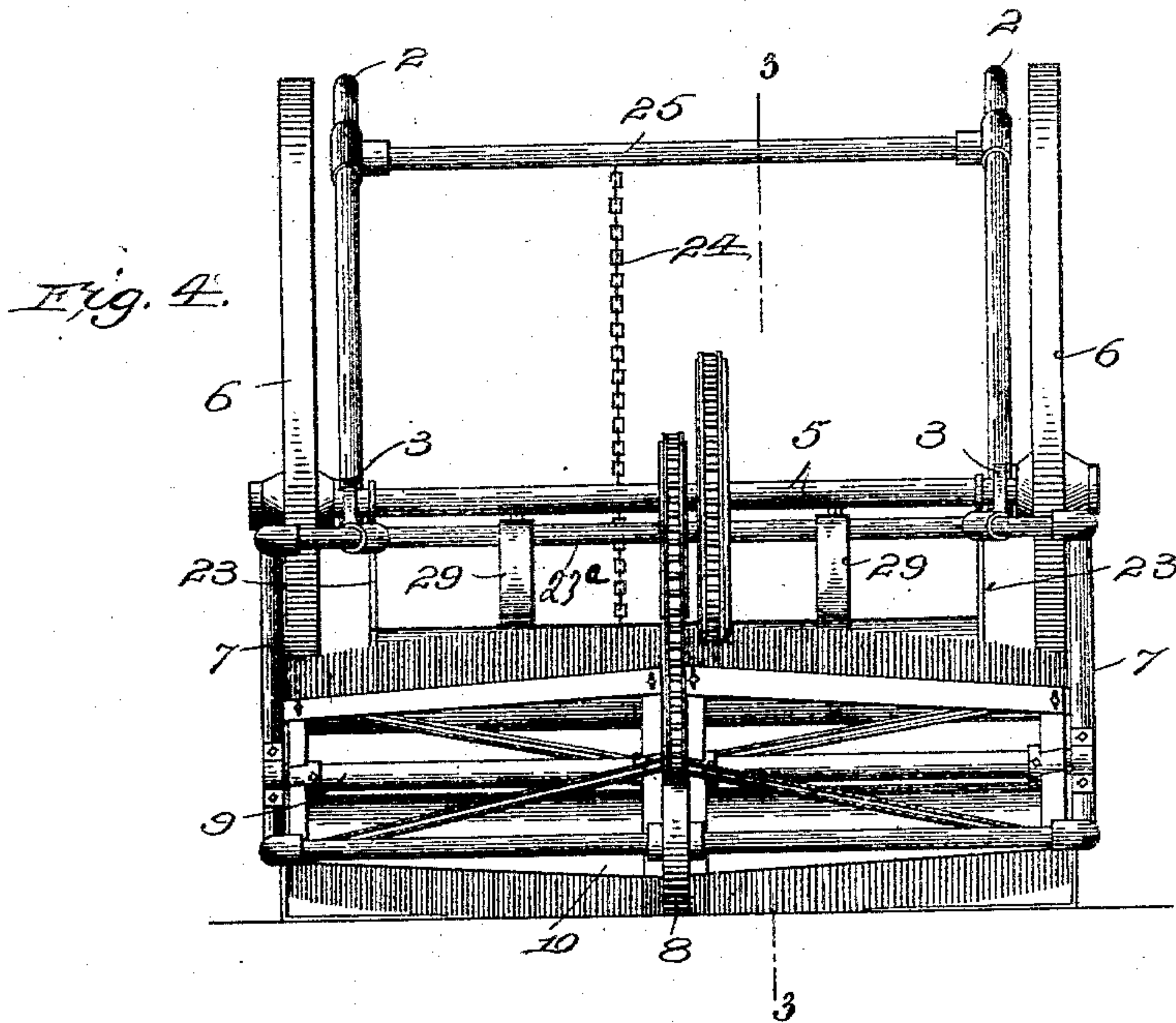
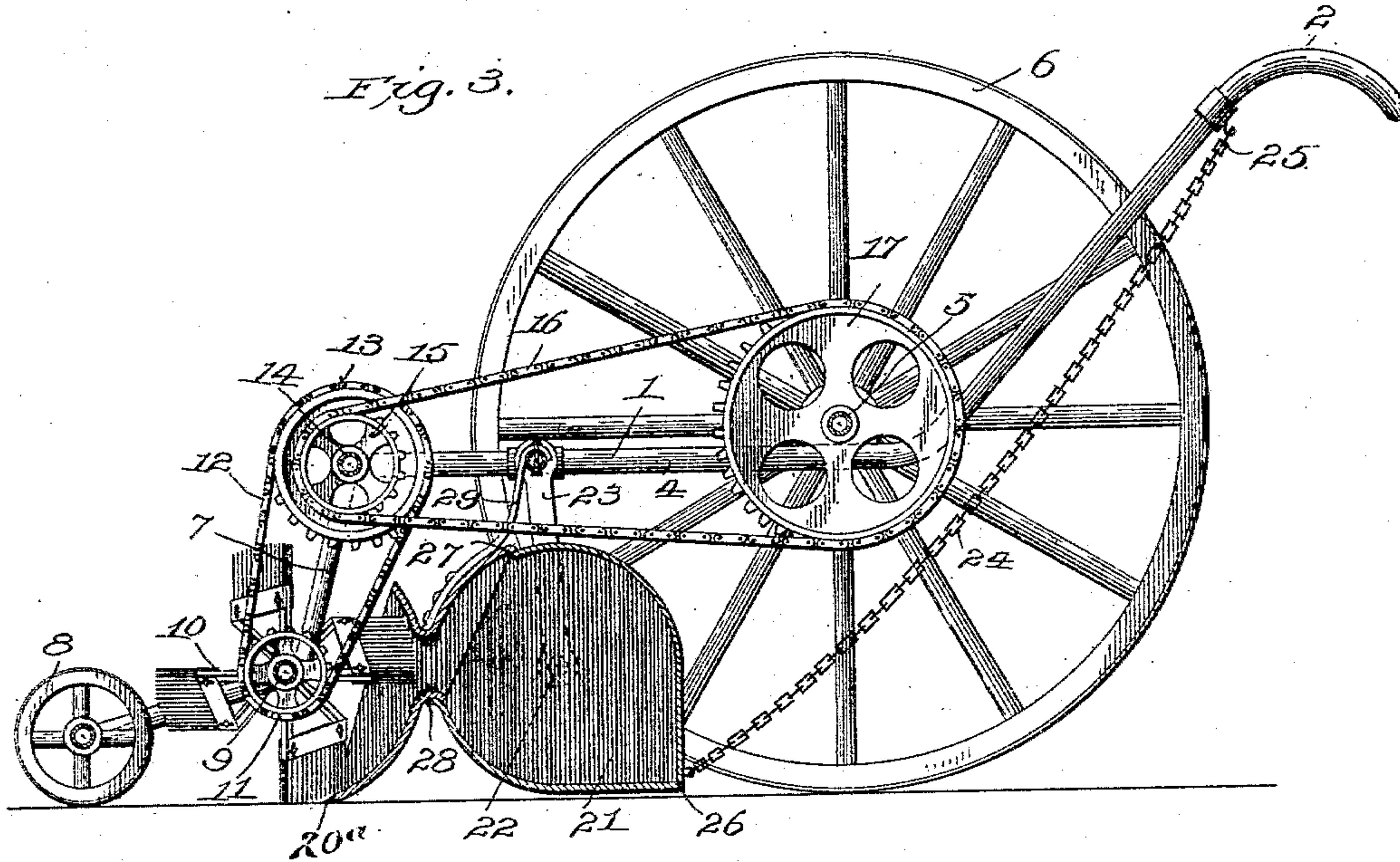
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3 Sheets—Sheet 2.

J. X. ROGERS.
STREET SWEEPER.

No. 548,659.

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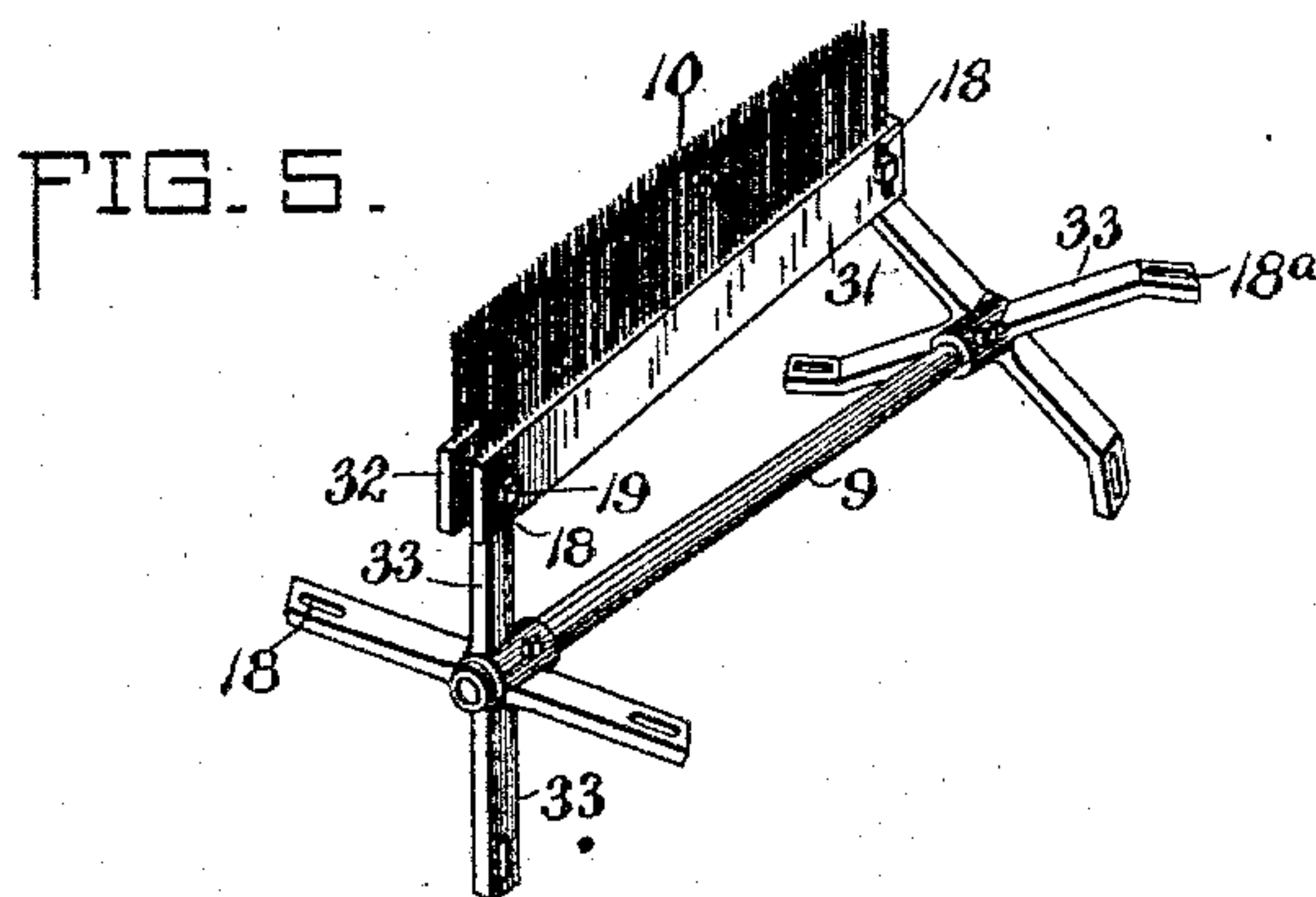
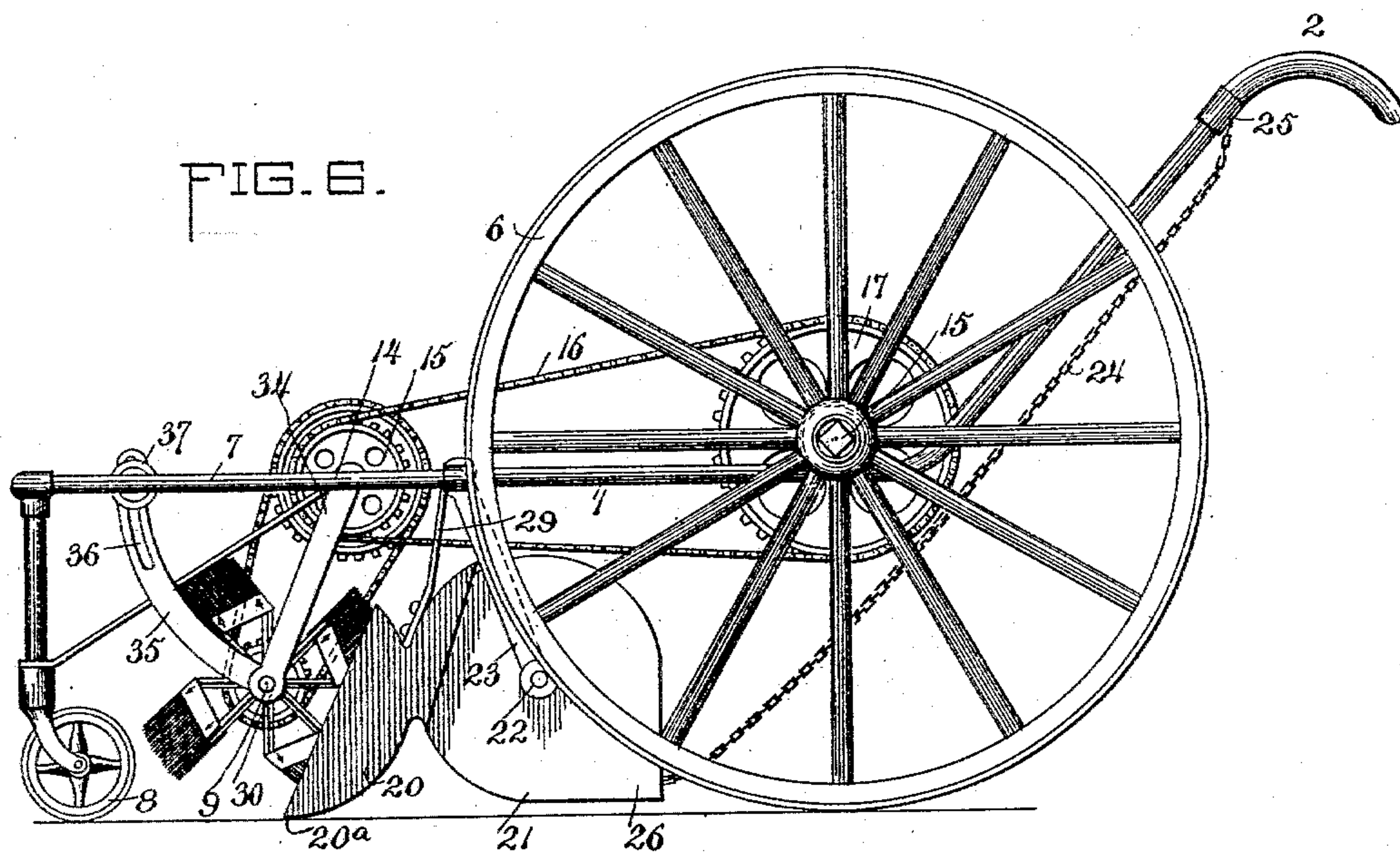
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3 Sheets—Sheet 3.

J. X. ROGERS.
STREET SWEEPER.

No. 548,659.

Patented Oct. 29, 1895.



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UNITED STATES PATENT OFFICE.

JOSEPH X. ROGERS, OF PHILADELPHIA, PENNSYLVANIA.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 548,659, dated October 29, 1895.

Application filed October 12, 1894. Serial No. 525,661. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH X. ROGERS, a citizen of the United States, residing at Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Sweeping-Machines, of which the following is a specification.

My invention relates to a machine which is preferably constructed of dimensions which will adapt it for convenient use by hand, if necessary, and for frequent dumping, the whole being preferably mounted on two main wheels and balancing casters or wheels; and my invention consists in certain details of construction, which will hereinafter be fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved sweeper. Fig. 2 is a plan. Fig. 3 is a vertical section on line 3 3, Figs. 2 and 4; and Fig. 4 is a front elevation of the same. Fig. 5 is a detail view of the brush. Fig. 6 is a view showing an additional feature for adjusting the brush as a whole.

This sweeper comprises a quadrangular frame 1, carrying suitable means for drawing or pushing the machine—as, for instance, push-handles 2—and having bearings 3 on the side bars 4, on which are mounted the axle 5 of the main carrying and driving wheels 6. Projecting forward and downward is a swelled portion 7 of the frame 1, in which is mounted a central wheel 8 to support the front end of the machine. On the swelled extension is also mounted the axle 9 of a brush 10, said axle also carrying a central sprocket-wheel 11, by which the brush is driven through the medium of a chain 12 from a larger sprocket-wheel 13 on a spindle 14, which in turn is driven by a smaller wheel 15, secured to it, and a chain 16, which connects wheel 15 with a relatively larger sprocket-wheel 17 on the main drive-axle 5. One or both of the main wheels 6 are fastened upon the axle 5, and said axle turns in bearings 3, so as to transmit motion through said axle to the sprocket-wheel 17, which drives the rotary brush, or said sprocket-wheel may be connected with one main wheel in any equivalent manner. Mounted rigidly upon the machine just in rear of brush 10 is the scraper or collector 20, the

lower edge of which scrapes on the ground and receives the material gathered by brush 10 and guides it into a cylindrical receiver 21, mounted just in rear of said collector 20. The scraper has a flaring mouth to receive the brush and avoid escape of any of the sweepings. (See Figs. 2 and 4.) The receiver 21 is adapted to be dumped at will, and for this purpose is mounted upon horizontal trunnions 22, supported on the ends of hangers 23, which project down from a cross-bar 23^a on the main frame of the machine. This receiver 21 being thus adapted to be inverted may be moved to bring the receiving-opening on the bottom, in order to empty its contents, by drawing a chain 24, whose upper end is held at convenient reach, as at 25. By the shape of the receiver 21 it is held in normal position by reason of its rear projection 26 and makes a tight connection with the collector 20 and receiver 21 and at the same time affords a stop for the receiver in its return movement by curved edges 27 28, against which the edges of the opening of receiver 21 abut. The collector 20 is supported by hangers 29 from cross-bar 23^a.

In Fig. 6 is shown a form of machine embodying a change in the manner of mounting the brush. The brush is either mounted directly on the frame, as shown in Figs. 1, 2, 3, and 4, or is carried by hangers 34, swung from the shaft 14 and carrying the bearings 30 of the brush-axle 9, said hangers 34 being held up by links 35, connected at their ends to said hangers, and adjustably secured by slots 36 and set-screws 37 to the forward end of the frame, which in this form is not dropped. The brush may by this means be adjusted as a whole toward the ground and the collecting-scraper to take up wear.

The brush 10 is fixed upon its axle and the latter has bearings 30, which are either attached to the front drop extension of the frame, which is widened just forward of the wheels, in order to permit the brush 10 to extend out sidewise past the wheels and clean gutters or other places where the machine cannot be passed over, or said brush-bearings 30 are made in the ends of the hangers 34, as described. Said brush is made up of a number of double radial sections 31 32, made alternately of wire and rattan or other brush

material, and secured by bolts and slots on opposite sides of spider-arms 33, arranged at proper points, and thus separately adjustable as they wear unevenly. These sections are
5 divided centrally in a circumferential direction, and the two parts thus formed of each section are set at angles on a common shaft, so that they have the effect of gathering the dirt from both sides and sweeping it toward
10 the middle line, and thus bringing it within the collector, the ends of which are flared to embrace the brush. In addition to these features, and in addition to the adjustment of the swinging hangers, I make each brush-section,
15 in the preferred form of brush, removable and adjustable, so that new brushes may be put on or any brush may be set individually, as required, by making slots 18 in the spider-arms 33 and passing bolts 19 through said
20 slots and through the brush-sections 31 and 32. (See Fig. 5.)

From the foregoing description it will be seen that my invention provides a simple but effective sweeping-machine, well adapted for
25 use where frequent dumping is desired and for operation by hand. I do not limit myself, however, to any particular means for propelling the machine, and I also desire it understood that the details of construction may be
30 varied without departing from the principles of my invention.

Having thus described my invention, the

following is what I claim as new therein and desire to secure by Letters Patent:

1. In a sweeping machine the combination 35 of a frame comprising the side bars 4, having handles 2, main axle bearings 3 and cross-bar 23^a, and the enlarged extension 7 having cross-bar 14 and carrying front-wheel 8; the dirt receiver 21 trunnioned in hangers 23, depend- 40 ing from cross-bar 23^a, and the flared collector 20, supported by arms 29, from said cross-bar 23^a; the brush supported by said front extension, and the driving connections consisting of the sprocket wheels on the axle 5, cross- 45 bar 14 and brush 10, and chains connecting said sprocket wheels, as explained.

2. In combination with a suitable carriage, having an axle with suitable means for rotating it a rotary sweeping brush mounted on 50 said axle and made up of radial spider arms and radial brush sections inclined in opposite directions from the two ends toward the center of the brush; each section comprising two 55 parts clothed respectively with metal and vegetable bristles and secured on opposite sides of the spider arms by slots and bolts whereby the parts are separately adjustable as they wear unevenly, as set forth.

JOSEPH X. ROGERS.

Witnesses:

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