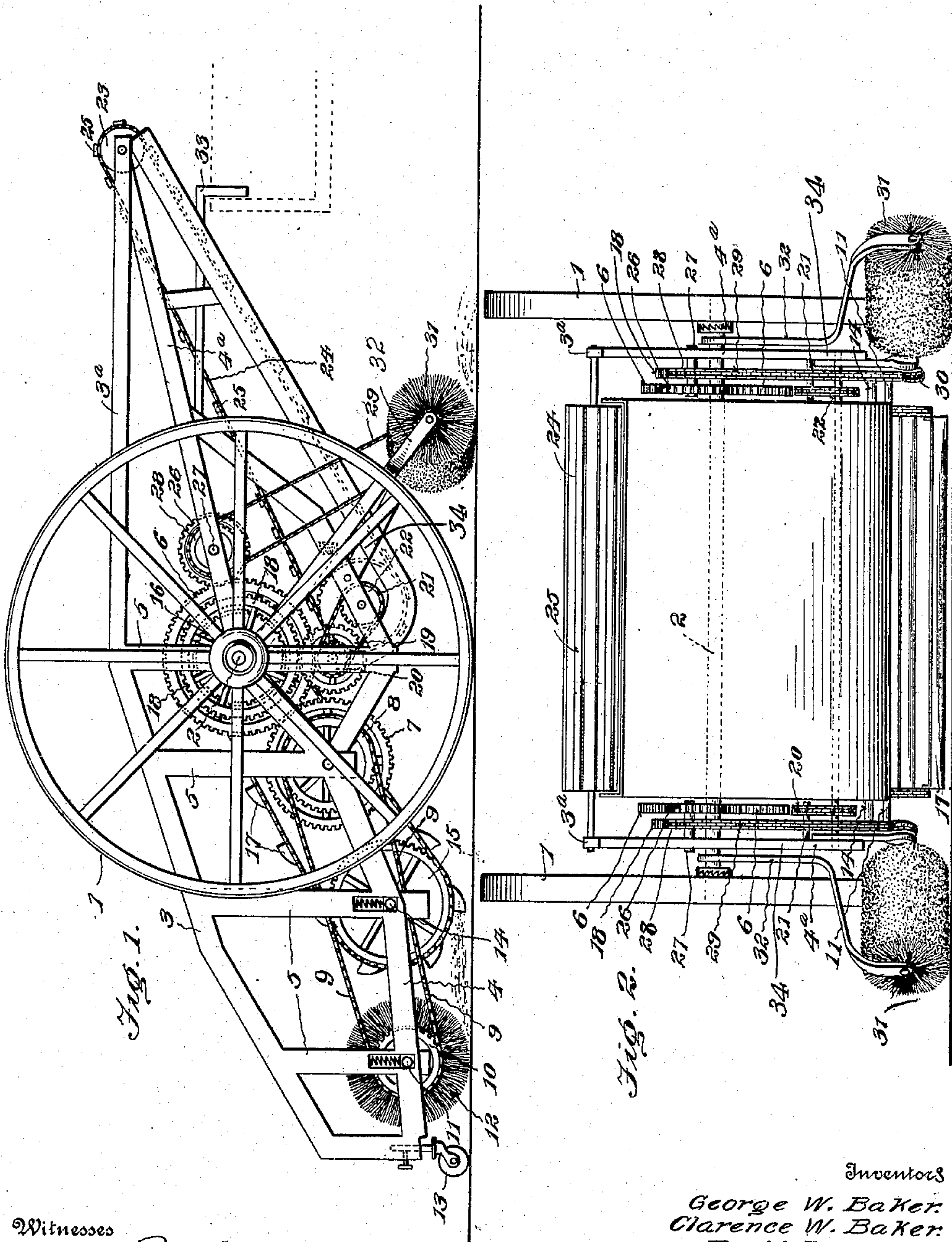


G. W. & C. W. BAKER & R. McLENNAN.
STREET SWEEPING APPARATUS.
APPLICATION FILED NOV. 22, 1907.

911,196.

Patented Feb. 2, 1909.

2 SHEETS—SHEET 1.



Witnesses

W. H. Woodson

By

W. H. Woodson, Attorneys

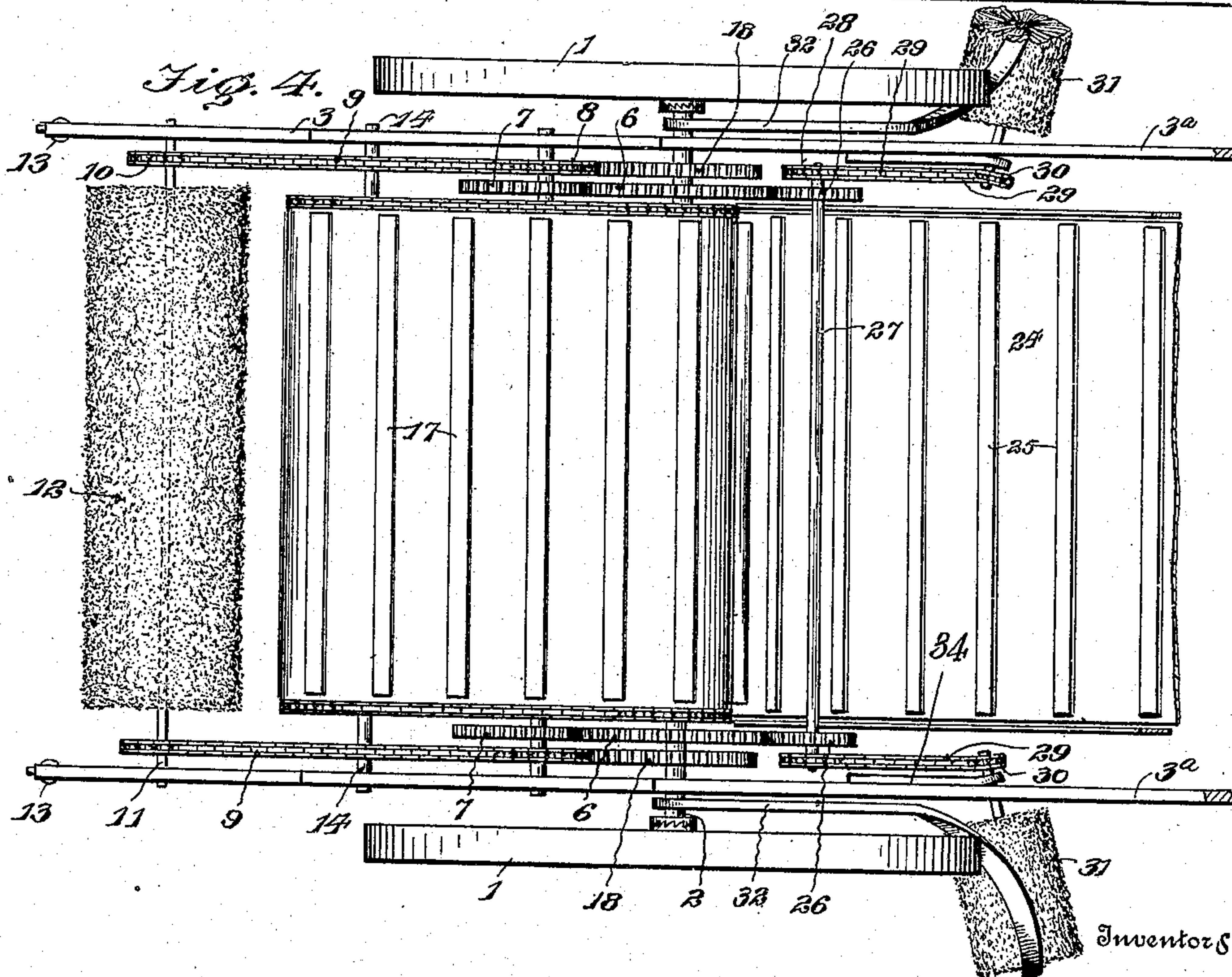
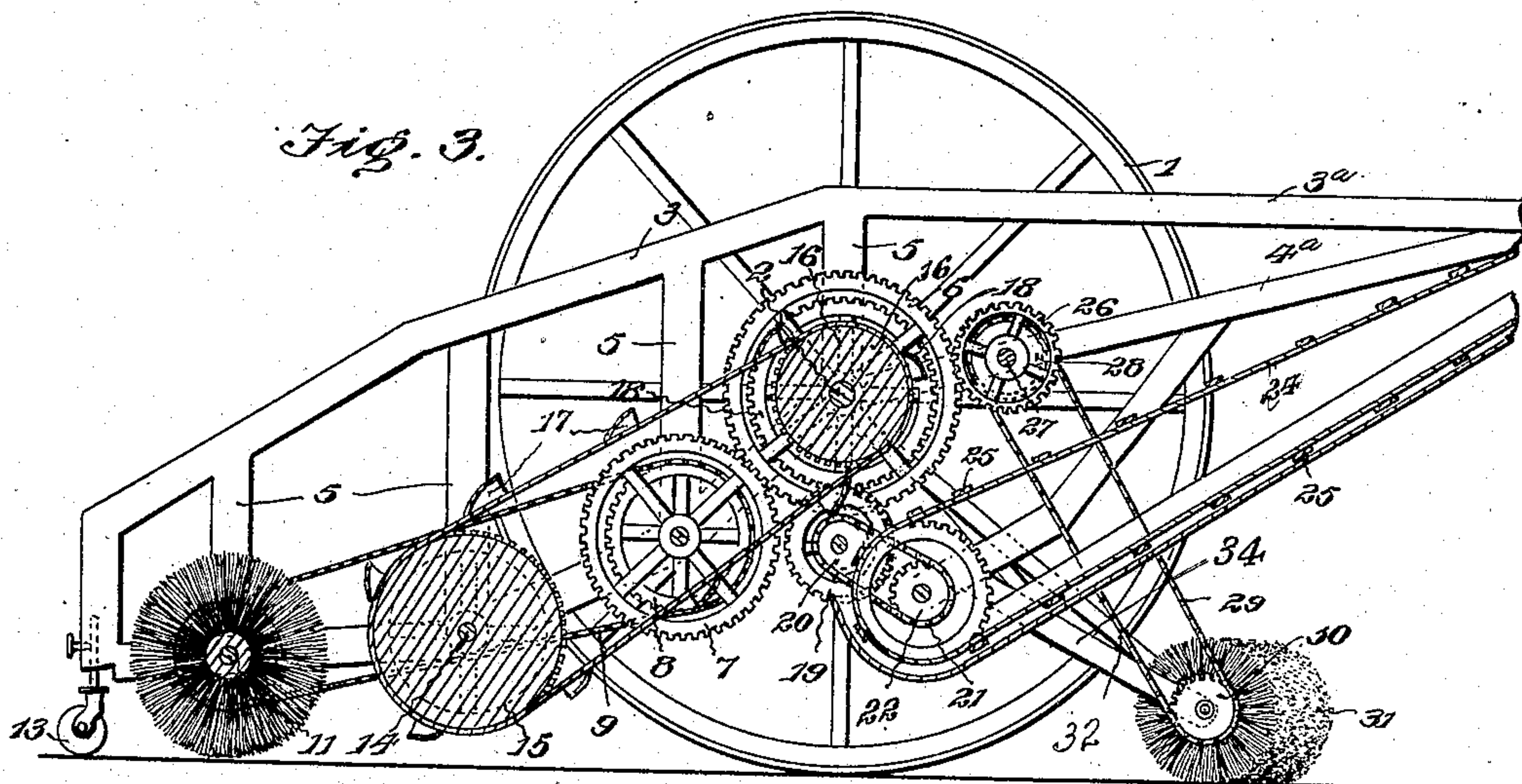
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UNITED STATES PATENT OFFICE.

GEORGE W. BAKER, CLARENCE W. BAKER, AND RODERICK McLENNAN, OF BALLSTON SPA,
NEW YORK.

STREET-SWEEPING APPARATUS.

No. 911,196.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed November 22, 1907. Serial No. 403,364.

To all whom it may concern:

Be it known that we, GEORGE W. BAKER, CLARENCE W. BAKER, and RODERICK McLENNAN, citizens of the United States, residing at Ballston Spa, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Street-Sweeping Apparatus, of which the following is a specification.

This invention comprehends certain new and useful improvements in street cleaning machines, and relates particularly to an apparatus of that character that is designed to be connected to a wagon, so as to be drawn along the streets and sweep the refuse into conveyers designed to carry it upwardly and forwardly and deposit it in the wagon, and the invention has for its object a simple, durable, and efficient construction of apparatus of this character which will be composed of comparatively few parts that may be cheaply manufactured and easily assembled.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that we shall hereinafter describe and particularly point out in the appended claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of our improved street sweeping machine; Fig. 2 is a front view thereof; Fig. 3 is a longitudinal sectional view; and, Fig. 4 is a top plan view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates the traveling wheels of our improved street sweeping apparatus, that are mounted on the driving axle 2 journaled in a framework. This framework embodies corresponding side portions rigidly connected in spaced relation by suitable cross bars and each of said side portions comprises an upper longitudinal beam 3 with a forward extension 3^a, a lower irregular longitudinal beam 4 and forwardly extending oblique braces 4^a connected to the outer ends of the beam ex-

tension 3^a. Each side portion also comprises a series of vertically extending standards or braces 5.

Upon either or both ends of the driving axle 2 a spur gear wheel 6 is fastened, said gear wheel meshing with a similar wheel 7. The wheel 7 is mounted on the same shaft with a sprocket wheel 8, and a chain 9 extends around the sprocket wheel 8 and also around a sprocket wheel 10 mounted on a transversely extending shaft 11 journaled in spring boxings in one pair of standards 5. The main brush 12, which is cylindrical as shown, and which preferably comprises a solid body portion with bristles is mounted on the shaft 11, so that as the traveling wheels 1 are drawn forwardly the brush will rotate in the reverse direction so as to sweep the refuse forwardly for action by an elevating conveyer mounted in the framework of the apparatus. At the rear of the framework are caster-wheels 13, as shown.

The elevating conveyer comprises a lower shaft 14 journaled in the lower longitudinal beams 4, and an endless apron which is mounted to travel around a roller 15 mounted on the said shaft 14, and another roller 16 mounted on the driving axle 2. The elevating conveyer also includes buckets 17 that are designed to receive the material brushed up by the roller 12 and carry it forwardly and upwardly. The driving axle 2 also carries a gear wheel 18 which meshes with an idler gear 19 journaled on one of the posts or standards 5. On the same shaft with the idler 19 is a sprocket wheel 20, and a chain 21 passes around said sprocket wheel and around a similar wheel 22 on the lower roller of a discharging elevator. The upper roller 23 of this elevator is mounted in the forward extremities of the extension 3^a of the framework above a wagon as indicated in dotted lines in Fig. 1, and said elevator comprises an endless carrier 24 with a series of cleats 25 designed to scrape the material upwardly and discharge it into the wagon, as clearly illustrated in the drawings.

The gear wheels 6 mesh with spur pinions 26 on a shaft 27. On the same shaft are sprocket wheels 28, and around the sprocket wheels 28 chains 29 extend, said chains also extending over similar wheels 30 on the shafts of the auxiliary brushes 31. There are two of these brushes 31, as shown, and

they are preferably mounted in pivoted hangers 32 and 34, so that they may yield upwardly, the hangers 32 being hung from the axle 2, and the hangers 34 being secured to a portion of the framework. The auxiliary brushes are at opposite sides of the apparatus and are inclined as shown, so as to sweep to the side or in gutters and act to brush the refuse toward the middle of the apparatus for proper subsequent action by the main brush 12.

The apparatus may be secured to a wagon by angular arms 33, as indicated in Fig. 1, taking over the end gate of a dump wagon into which the refuse from our improved sweeping apparatus is automatically deposited.

In the practical operation of our improved street sweeping apparatus the frame work is coupled to the dump cart or other vehicle and thus drawn along the streets to be swept. The rotation of the main supporting traveling wheel 1 will manifestly effect a reverse rotation of the brush 12, which will sweep the refuse into the buckets 17 of the elevating conveyer, and the latter will carry the refuse upwardly and forwardly and dump the same upon the discharging elevator, the latter carrying the refuse upwardly and forwardly and discharging it automatically in the body of the wagon.

Having thus described the invention, what is claimed as new is:

35 A street sweeping machine, comprising traveling wheels, an axle on which said wheels are journaled, a framework on which said axle is mounted, said framework embodying a series of spaced portions each of which consists of an upper longitudinal beam provided with an extension projecting forwardly beyond the traveling wheels, a lower longitudinal beam, oblique braces ex-

tending forwardly from the axle and secured to the front extremity of the forward extension, and a series of vertically extending standards connecting the upper and lower beams, gear wheels mounted on the axle, similar gear wheels mounted in the rear of said gear wheels and meshing therewith, sprocket wheels mounted on the same shaft as said similar wheels, a cylindrical brush, a shaft on which said brush is mounted, said shaft being journaled in the lower longitudinal beams, sprocket wheels on the shaft, chains connecting the sprocket wheels with the first named sprocket wheels, a roller mounted on the axle, another roller mounted on the framework between the axle and the brush, an elevating conveyer mounted to travel around said last named rollers, a discharge elevator comprising a roller mounted on the front extremities of the forward extensions of the upper longitudinal beams of the framework, another roller journaled in the framework below the upper end of the elevating conveyer, and an endless carrier provided with cleats and mounted to travel around said two last named rollers, sprocket wheels movable with the roller that is underneath the elevating conveyer, other sprockets mounted on the framework and having a chain connection with the sprockets just mentioned, idler gear wheels movable with said last named sprockets, and other gear wheels mounted on the main axle and meshing with said last named gear wheels.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE W. BAKER. [L. S.]

CLARENCE W. BAKER. [L. S.]

RODERICK McLENNAN. [L. S.]

Witnesses:

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