No. 735,126. PATENTED AUG. 4, 1903.

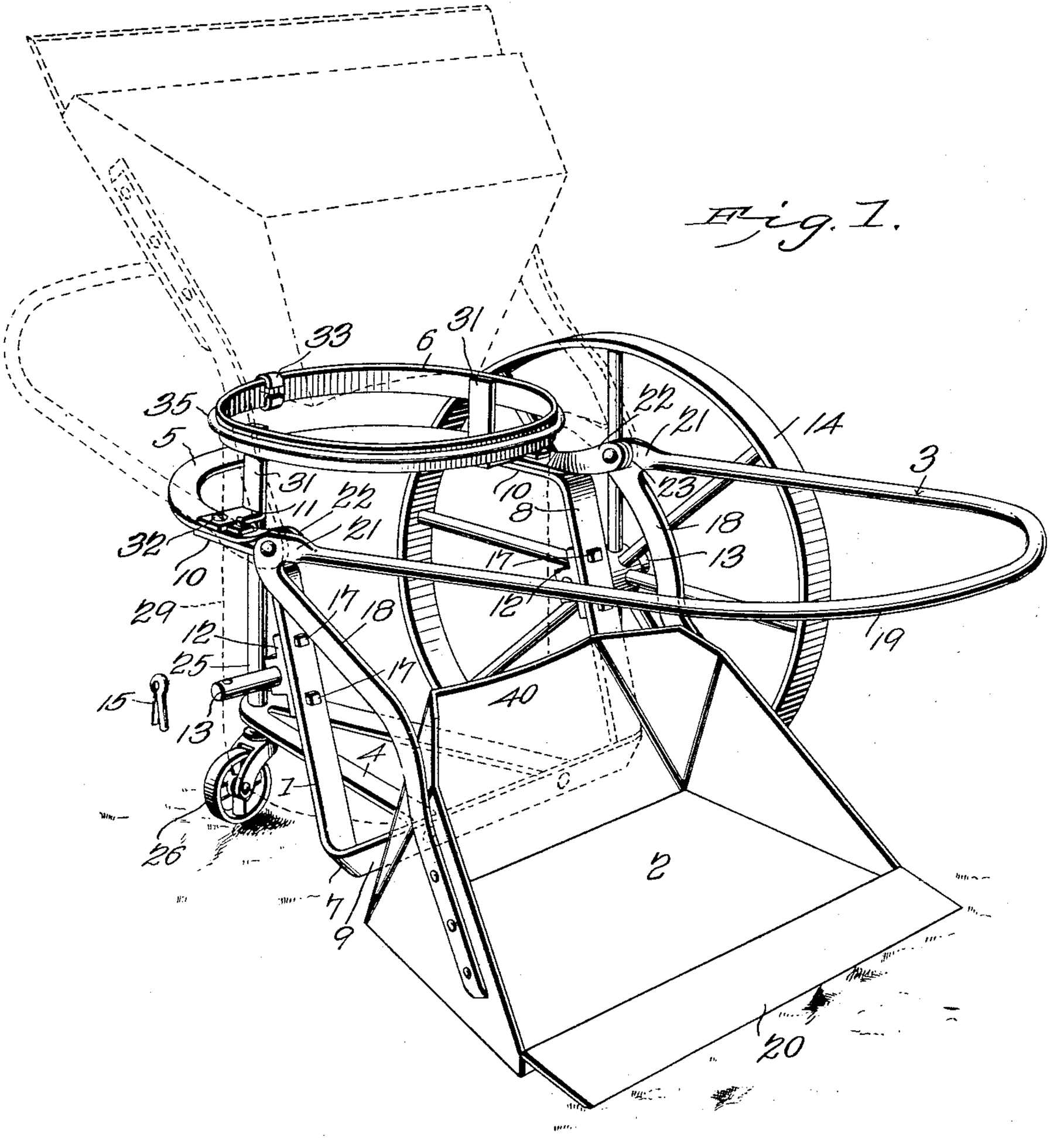
R. C. MENZIES.

WHEELED DIRT RECEPTACLE.

APPLICATION FILED APR. 2, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
E. F. Stewart
R. M. Wiott.

R. C. Menzies, Inventor
by Cushman & Co
Attorneys.

No. 735,126. PATENTED AUG. 4, 1903.

R. C. MENZIES.

WHEELED DIRT RECEPTACLE.

APPLICATION FILED APR. 2, 1902.

NO MODEL. 3 SHEETS—SHEET 2.

Fig. 3.

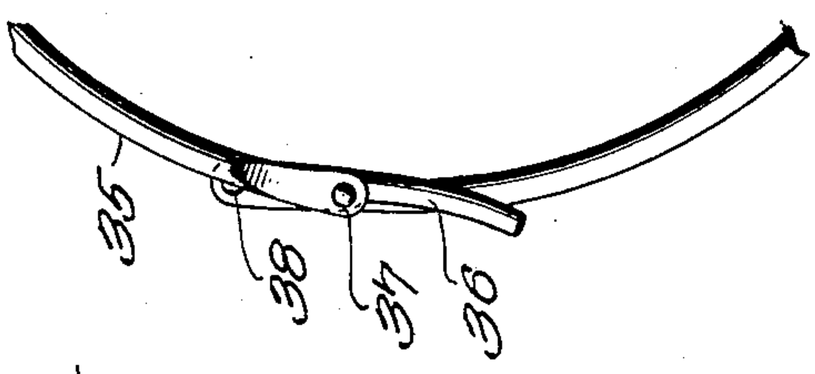
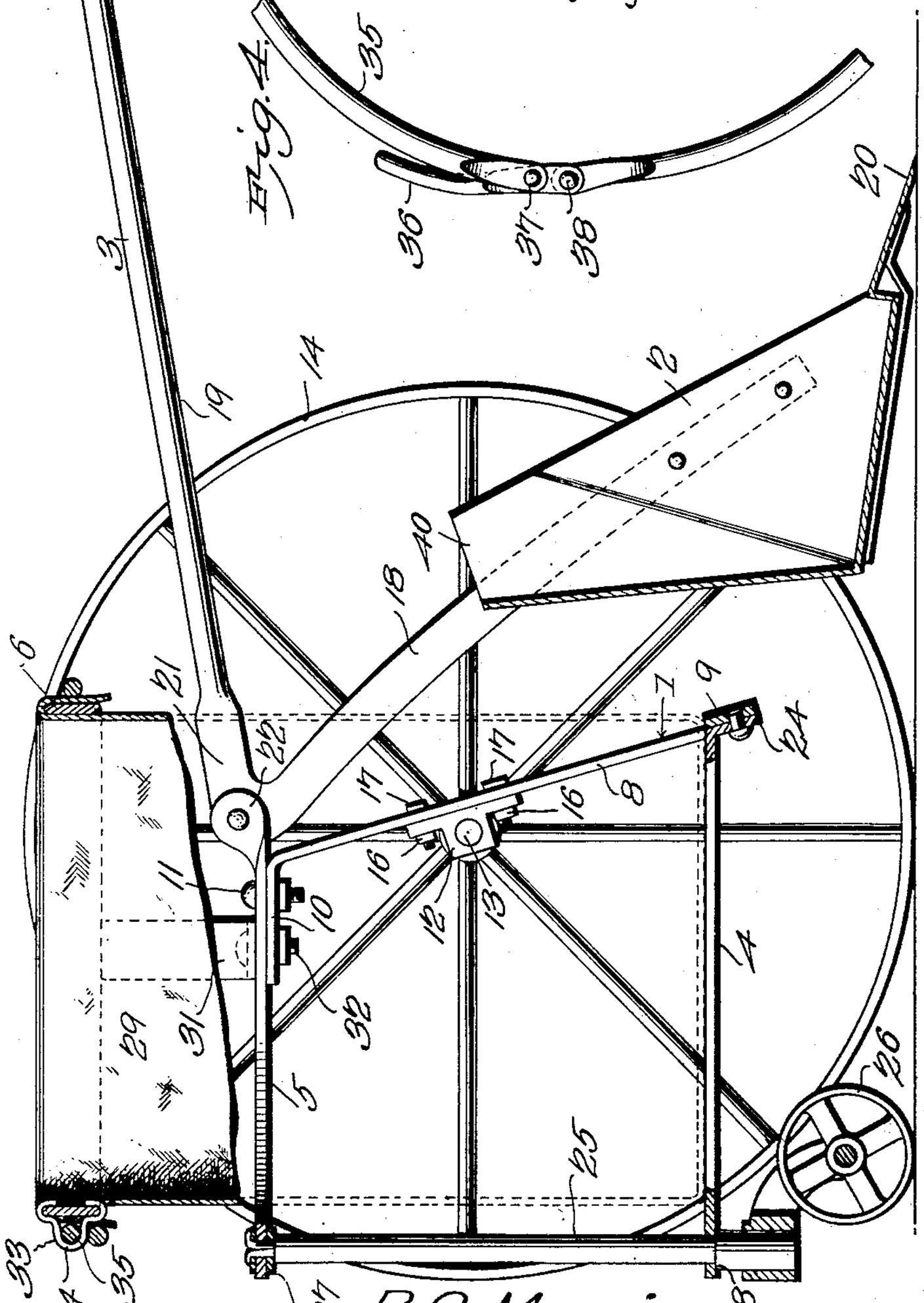


Fig. 4.

Fig. 2.



Witnesses:

E. F. Stewart.

R. M. Wiott.

R. C. Menzies. Inventor:

by C. A. Snow & Co.

Attorneys.

No. 735,126. PATENTED AUG. 4, 1903.

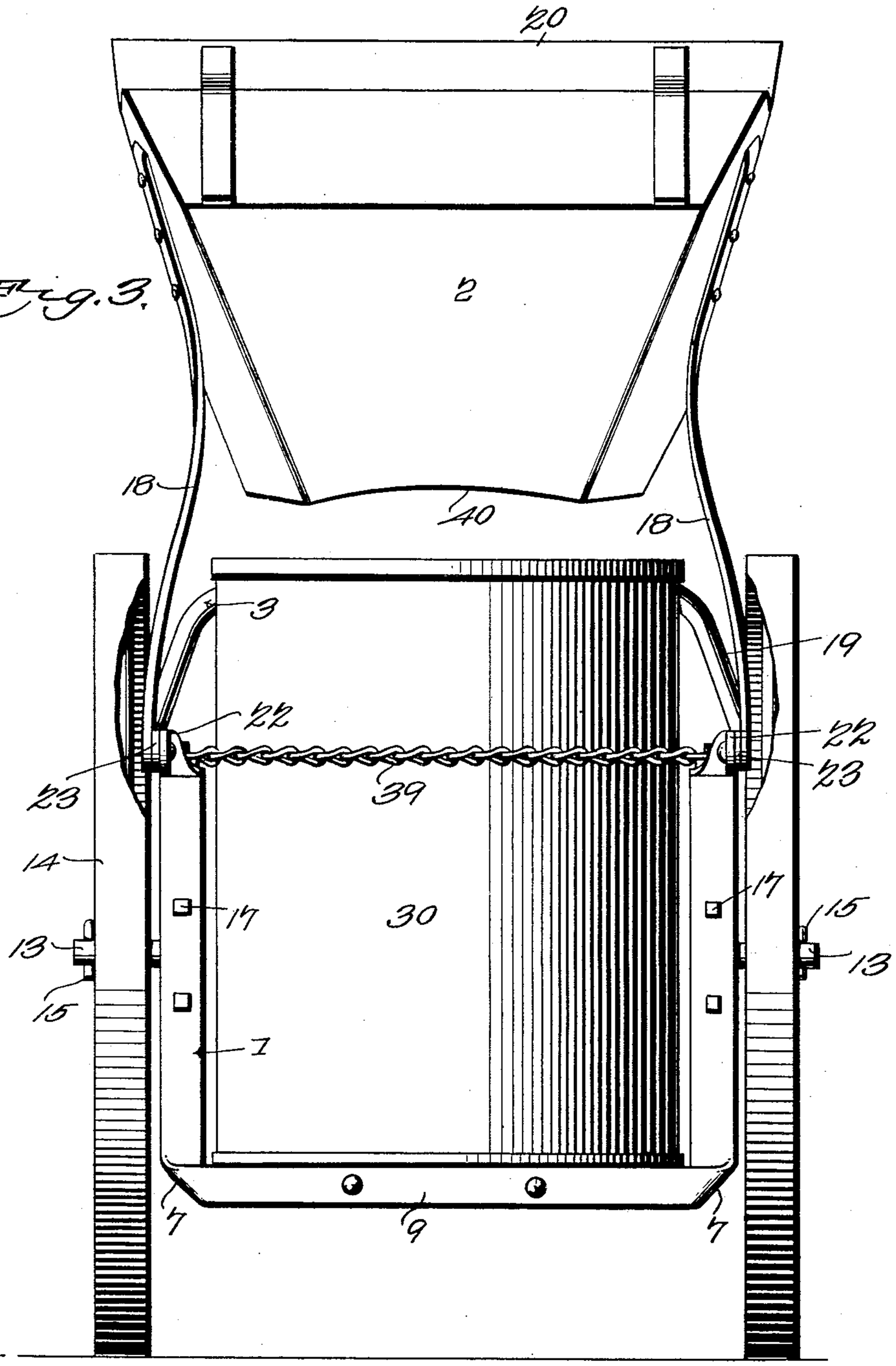
R. C. MENZIES.

WHEELED DIRT RECEPTACLE.

APPLICATION FILED APR. 2, 1902.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 3.



Witnesses:
E. G. Siggers
R. M. Wiott.

Inventor:
R. C. Menzies,
by Cushman & Co
Attorneys.

No. 735,126. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

ROBERT CHARLES MENZIES, OF GLENS FALLS, NEW YORK.

WHEELED DIRT-RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 735,126, dated August 4, 1903.

Application filed April 2, 1902. Serial No. 101,116. (No model.)

To all whom it may concern:

Be it known that I, ROBERT CHARLES MENZIES, a citizen of the United States, residing at Glens Falls, in the county of Warren and State of New York, have invented a new and useful Wheeled Dirt-Receptacle, of which the following is a specification.

This invention relates to a wheeled dirt-receptacle for street-cleaning purposes.

The object of the invention is to facilitate the collection of dirt and refuse matter swept up in the streets of cities and with the expenditure of a minimum of labor to deposit the collected matter in a suitable receptacle associated with the machine.

A further object is to simplify the construction of the machine by reducing the number of its parts to a minimum and so to construct and arrange the parts as to permit of ready detachment in case of damage or breakage.

A further object is to provide a machine of the class described which by removal of certain of its parts may be converted from a bag-carrying machine to a can-carrying machine.

A further object is to dispose the weight of the dirt-receiver and its contents in the rear of the supporting-axles and to support this part of the frame in such manner with relation to the ground that no weight will be borne by the operating handle or bail, thereby relieving the operator of unnecessary strain to keep the dirt-receiver or pan out of contact with the street.

A further object is to associate the draft or pulling means with the axle-frame in such manner as to obviate danger of tilting the dirt-receptacle when a pull is first applied to the draft means to overcome the inertia of the machine.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a wheeled dirt-receptacle, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof, and in these drawings—

Figure 1 is a view in perspective of the machine, exhibiting the operative position of the dirt-receiver or pan in full lines and its dumped position in dotted lines. Fig. 2 is a view in side elevation, partly in section. Fig. 3 is a view in front elevation with the dirt-receiver or pan in its dumping position and exhibiting a can associated with the machine in lieu of a bag, as shown in Figs. 1 and 2. Figs. 4 and 5 are views in plan showing, respectively, the unlocked and locked positions of the parts of the bag-clamp.

The machine of this invention is not to be confounded with an ordinary cleaner which is pushed along over a pavement and scrapes up the dirt and refuse matter. As will hereinafter appear, it is a dirt-collector pure and simple, the pan or dirt-receiver at the front of the machine being adapted to receive the dirt supplied thereto by having it brushed or swept therein, whence it is dumped or deposited into a dirt-holder detachably connected with the machine, thus to admit of its being removed and emptied when filled.

The frame of the machine comprises an axle-frame 1, a tilting frame constituting a dirt-receiver 2 and a draft means or bail 3, a dirt-holder frame comprising a dirt-holder rest 4 and a dirt-holder guard 5, and a bag-holder 6, detachably associated in this instance with the guard. The axle-frame 1 is by preference approximately rectangular when viewed in elevation and is constructed of a single piece of flat metal bent in a quarter-turn upon itself, as at 7, Fig. 1, to dispose the flat sides of the vertical members 8 parallel with the base member 9. The upper terminals of the vertical members are bent at an angle to their length to present arms 10, that are secured by bolts or equivalent fastening devices 11 to the guard 5, the vertical members being rearwardly inclined from the front of the machine for a purpose that will presently appear. Secured intermediate of the ends of the members 8 are axle-bearing blocks 12, having associated with them in any preferred manner the axles 13, which are engaged by the supporting-wheels 14, the latter

being held on the axles in this instance by cotter-pins 15. The advantage of associating the axles with the frame members 8 in the manner described is that should breakage of one of the axles occur it may readily be replaced with a new one simply by removing the nuts 16 of the bolts 17, that hold the blocks associated with the members.

The tilting frame, to which reference has been made, comprises two arms 18, by preference formed integral with a bail 19, constituting the draft means, the arms 18 being forwardly and downwardly inclined with relation to the bail and have associated with their lower ends the dirt-receiver 2, which may be of the shape shown or otherwise, and is provided with a lip 20 to bear upon the surface of the street and to act as a guide in directing the refuse matter to the receiver. The arms 18 are flat, and the bail 19 is preferably circular in cross-section, and the terminals of the bail where they merge into the arms are flattened to permit attachment at their bends 21 with a pair of upturned ears 22, constituting the terminals of the guard 5, the said ears being formed by bending or twisting the said terminals at right angles to the length of the guard, and in order to prevent interference between the ears and the bail at the pivotal points of the latter washers 23 are interposed at those points.

The dirt-holder rest 4 (clearly shown in Fig. 1) is by preference formed of a strip or bar of flat metal bent to present an approximately V-shaped structure, the terminals of which are bent at an angle to their length, as at 24, to provide a means of attachment with the base member 9 of the axle-frame. The dirt-holder rest projects rearward approximately the same distance as its guard 5 and at its bend is provided with an orifice to receive the shank 25 of a caster 26, which shank also projects through an orifice in the guard and is held in position therein by having its protruding end upset, that portion of the shank that projects through the guard being reduced to present a shoulder, between which and the under side of the guard is arranged a washer 27. As it is essential that the caster be associated with the shank in such manner as positively to be held against accidental separation therefrom, it is preferred that it be cast with the caster-frame when the latter is being manufactured. That portion of the shank below the dirt-holder rest is of greater diameter than the remainder of its length, and thus presents a shoulder 28, on which the said rest bears. This caster, in addition to facilitating the turning of the machine, also subserves the very important function of sustaining a great portion of the weight of the "dirt-holder," this term being used generically to indicate either an ordinary bag 29, as shown in Figs. 1 and 2, or a metallic can 30, as shown in Fig. 3.

The bag-holder (designated generally 6) comprises an annulus, to which are secured two legs 31, the lower ends of which are bent at right angles to their length and are bolted at 32 by two of the bolts 11, that serve to hold the axle-frame associated with the guard 5. Mounted upon the bag-holder is a cleat 33, provided with an offset 34, in which is swiveled the bag-clamp 35, the said clamp being thus free to be swung out of engagement with the holder when a bag is to be associated therewith or disconnected therefrom. As a means for tightening the clamp around the holder, thus to bind the bag in position, as shown in Fig. 2, a locking-lever 36 is employed, which is pivotally associated at 37 and 38 with the terminals of the bag-clamp. When the lever is in the position shown in Fig. 4, the clamp will be out of engagement with the bag, and when moved to the position shown in Fig. 5 will effect binding of the clamp tightly against the bag and the holder. This clamp is of great importance and will in use be thoroughly efficient for the purpose designed, and by the manner in which it is associated with the holder its loss will be positively obviated.

When it is desired to employ a metallic can 30 in lieu of the bag, the bag holder and clamp are removed by detaching the bolts 11, and the can is then placed in position upon the rest 4 and is held from rearward movement by the guard 5, a chain 39, suitably associated with the terminals of the guard 5, being positioned, as shown in Fig. 3, to hold the can from forward movement. This chain is by preference always connected with the machine, and thus adaptable for use when necessary.

It will be seen by reference to Fig. 2 that the bulk of the dirt-holder is disposed in rear of the axles, thus to cause the principal weight to be borne by the caster, this being effected by the rearward tilting of the vertical members 8 of the axle-frame, as before pointed out. The object of this arrangement is to obviate the danger of forward tilting the holder when draft is applied to the bail to overcome the inertia of the machine in starting, thereby obviating the necessity of the employment of a stop or leg in front of the machine, such as is commonly employed in machines of this character. When draft is applied to the bail, it will lift the dirt-receiver clear of the ground, so that danger of its lip contacting with obstructions or inequalities in the street will positively be obviated.

In the use of this machine the lip 20 of the dirt-receiver is moved up to a pile of dirt that has been collected, and this is then swept or pushed up into the receiver, after which the position of the bail is inverted, as shown in dotted lines in Fig. 1, thereby bringing the constricted discharge-mouth 40 of the receiver over the dirt-holder to effect discharge of its load. The bail is then turned to its normal position and the operation repeated

as before. Should it be desired to push the machine over the pavement when the receiver is in the position shown in dotted lines in Fig. 1, this may be accomplished with as much ease as where the bail is in the position shown in full lines in the same figure.

It will be seen from the foregoing description that every part of the frame of this machine is constructed with a view to simplicity and lightness and yet of strength, and as all of the parts excepting the wheels and caster are made from ordinary flat metal repair in case of damage may be readily effected by an ordinary blacksmith.

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

1. In a machine of the class described, a wheeled supporting-frame, a draft appliance pivotally connected thereto, and a dirt-receiver carried by the said appliance.

2. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holder rest and a dirt-holder guard, and swiveled ground-engaging means associated with the rear portion of the frame and operating to hold its members properly spaced.

3. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holder rest and a dirt-holder guard, and a tilting frame associated therewith and comprising a dirt-receiver and a draft appliance.

4. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holder rest and a dirt-holder guard, and a caster disposed at the rear of the frame and having a shank connecting its upper and lower members.

5. In a machine of the class described, the combination with a dirt-holder frame, of bag-supporting means, and bag-clamping means having a swiveled connection with the bag-supporting means.

6. In a machine of the class described, the combination with a dirt-holder frame, of bag-supporting means, and contractile bag-clamping means pivotally associated with the supporting means.

7. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holding rest projecting rearward from its lower portion, a dirt-holder guard projecting rearward from its upper portion, and a caster having a shank connecting the rest and the guard.

8. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holder rest associated with its lower portion, a dirt-holder guard associated with its upper portion and having its terminals projected forward, a caster having a shank connecting the rest and the guard, a draft device pivotally connected with the guard-terminals, and a dirt-receiver rigidly associated with the draft device.

9. In a machine of the class described, the combination with a dirt-holder frame, of a bag-supporter, and bag-clamping means detachably associated therewith.

10. In a machine of the class described, a wheeled supporting-frame embodying a dirt-holder rest and a dirt-holder guard, the axle-bearing members of the frame being tilted toward the rear of the machine, draft means pivotally associated with the dirt-holder guard, and a dirt-receiver rigid with the draft means.

11. In a machine of the class described, the combination with a wheeled supporting-frame of a draft appliance pivotally connected with the frame, and a dirt-receiver rigid with the draft appliance, the draft appliance and dirt-receiver being both disposed at the front of the machine.

12. In a machine of the class described, a wheeled supporting-frame comprising upper and lower members, and a caster having a shank connecting the members and operating to brace and hold them properly spaced.

13. In a machine of the class described, the combination with a wheeled supporting-frame, of a dirt-holder rest constituting the lower portion of the frame, a dirt-holder guard constituting the upper portion thereof, a caster having a shank connecting the rest and the guard, a draft appliance pivotally associated with the guard, and a dirt-receiver carried by the said draft appliance.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT CHARLES MENZIES.

Witnesses:
H. PRIOR KING,
A. F. ROOT.