June 26, 1934. A. R. VON KELLER 1,964,394

REFUSE COLLECTOR

Filed Oct. 22, 1932 3 Sheets-Sheet 1

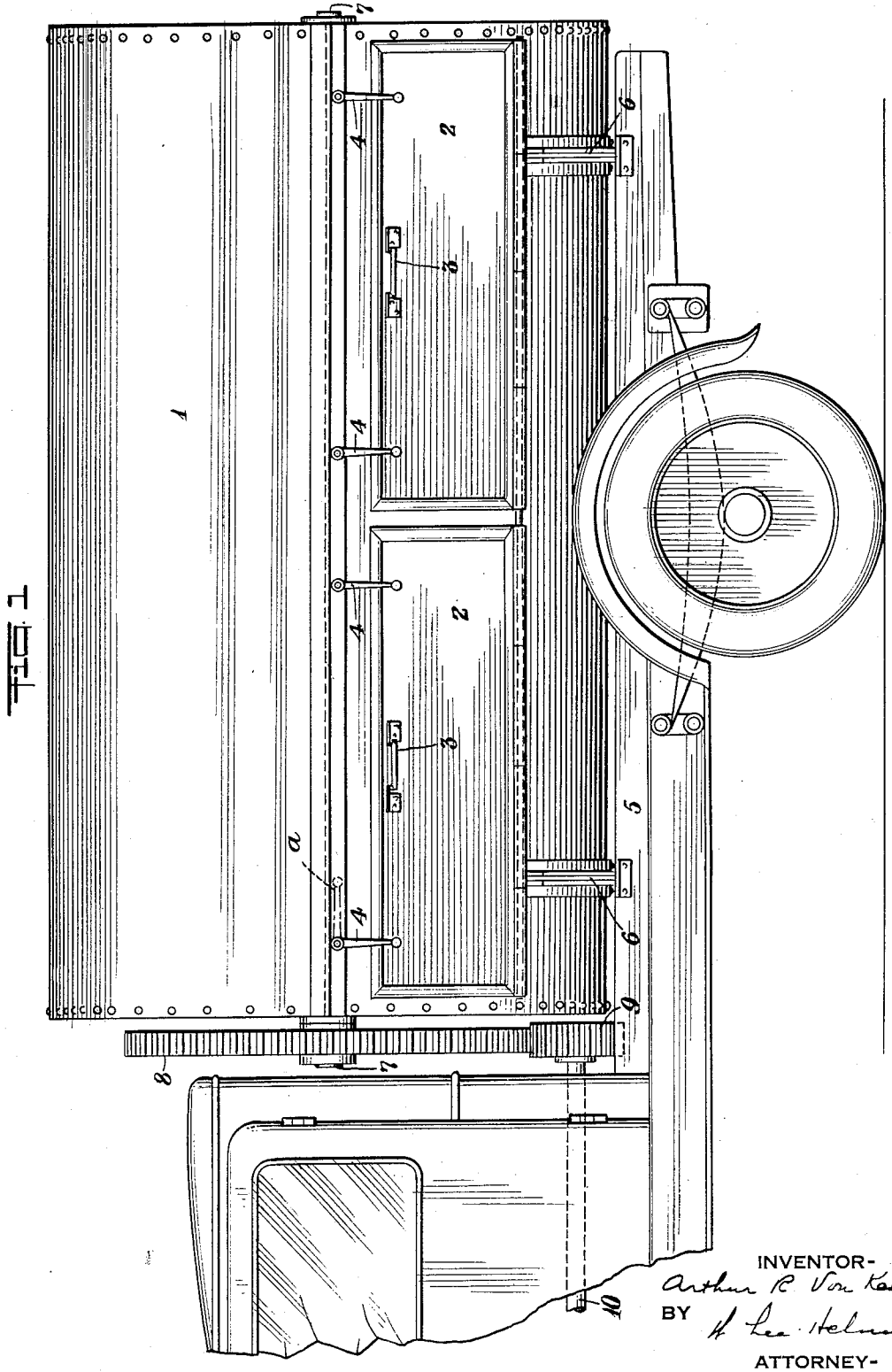


FIG. 1

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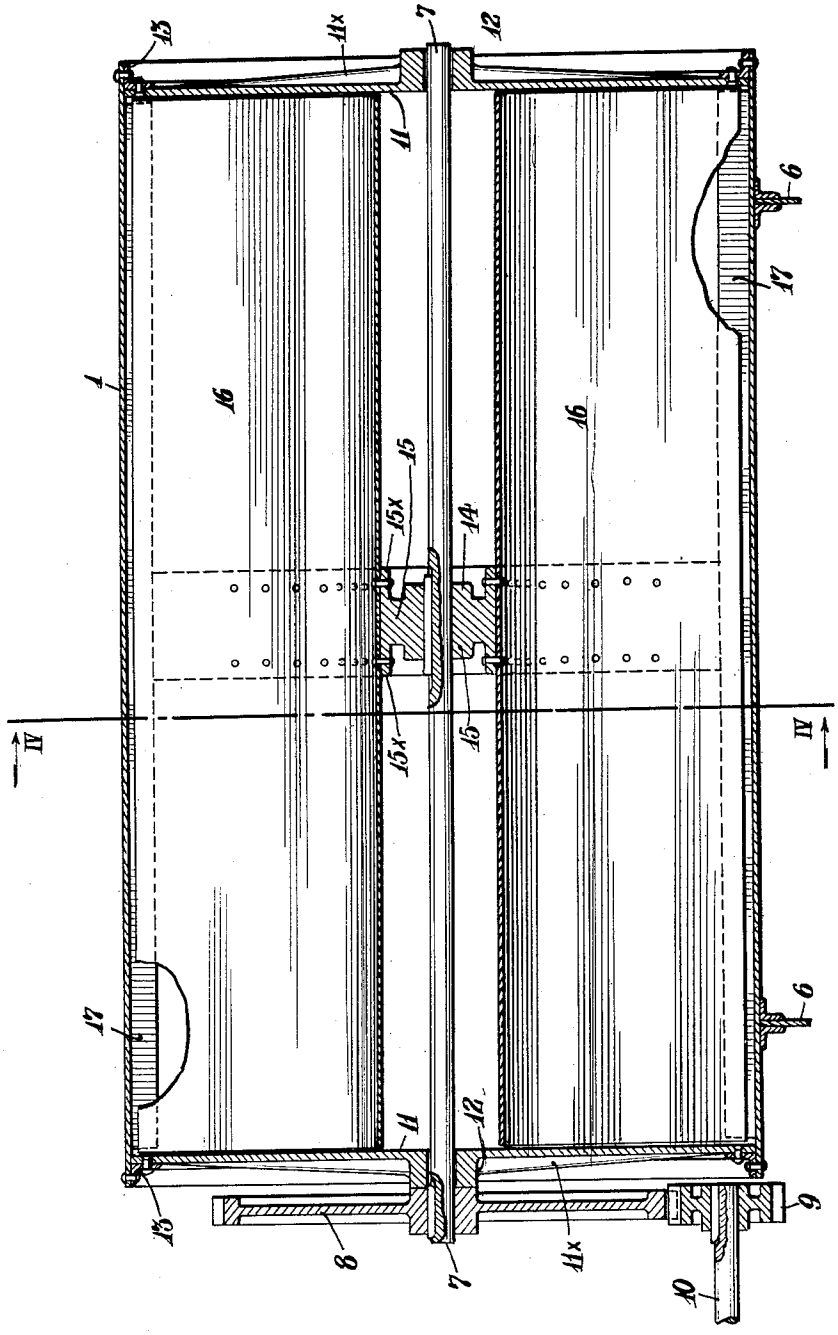


Fig. 2.

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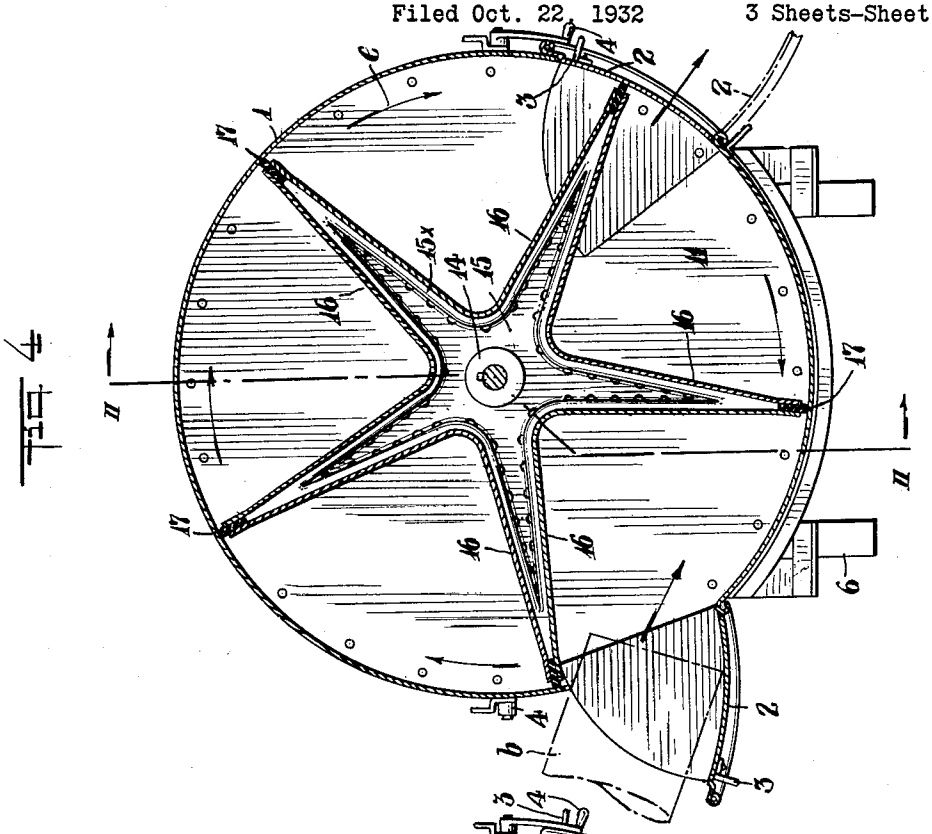


FIG. 4

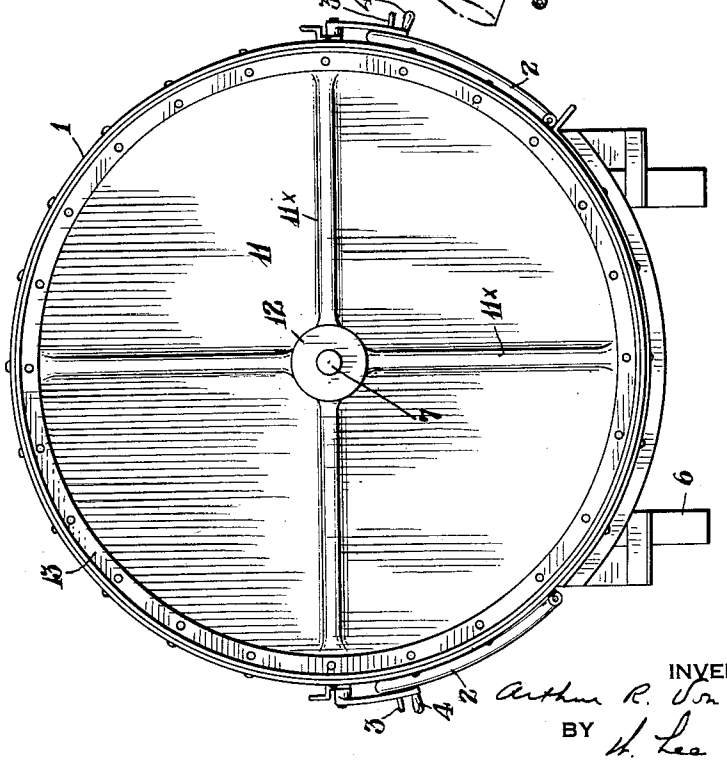


FIG. 3

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Patented June 26, 1934 1,964,394

UNITED STATES PATENT OFFICE

1,964,394

REFUSE COLLECTOR

Arthur Reginald Von Keller, Jamaica, N. Y.

Application October 22, 1932, Serial No. 639,017

4 Claims. (Cl. 298—10)

The object of the present invention is to provide a refuse collector particularly adapted for municipal garbage and other refuse and of a type in which a cylindrical container is employed in conjunction with a rotary multi-compartment member adapted to be moved into successive positions in order that the compartments may be filled or discharged, as the case may be.

A specific object of the invention is to provide a device of the said character which shall be strong and durable and yet of great simplicity of construction, particularly as to the formation of the compartment member.

The invention will be described with reference to the accompanying drawings in which

Fig. 1 is a view in elevation of an embodiment of the invention mounted upon a truck, the latter being partly broken away.

Fig. 2 is a longitudinal section on the line 2—2, Fig. 4.

Fig. 3 is a rear end view of the collector body.

Fig. 4 is a transverse section on the line 4—4, Fig. 2.

Referring to the drawings, I have shown at 1 a collector body of cylindrical formation having longitudinally extending openings closed by the doors 2, the latter being hinged at their base, each door having a handle 3 and latching arms 4 are employed to hold the doors in closed position, the latching arms being movable to the dotted line position *a* preliminary to opening the doors.

The refuse body is secured to truck frame member 5 as by the brackets 6. Extending through the collector body 1 longitudinally thereof is a shaft 7 carrying a gear 8 which may be driven by pinion 9 carried by shaft 10 leading to the source of power, ordinarily the gear box of the truck.

Reference to Fig. 2 will show that the ends of the collector body 1 are closed by end plates 11, each plate having an axial bearing boss 12 to receive shaft 7.

Each end plate 11 is formed as a casting or a stamped member carrying the radial ribs or arms 11*x* leading to boss 12 in order to distribute the stresses imposed by the weight of the load upon shaft 7. The end plates may be welded to the body 1 or connected thereto by angle rings 13 bolted respectively to the end plates and to the body 1.

Centrally of shaft 4 and keyed thereto is an annular hub 14 to which is connected either integrally or otherwise, a spider 15, the spider being formed, in the present embodiment, with a plurality of radial legs, each leg having opposed webs or projecting flanges 15*x*.

Bolted to the legs of the spider are a plurality of V-shaped plates 16, each plate being connected to one of the opposed flanges 15*x* of two legs of the spider, as shown in Fig. 4, so that when the spider comprises five legs, five compartments will be provided intermediate the legs and the annular wall of the body 1.

It will be understood that the plates 16 will be supported at their ends by means similar to the spider 15, such means not being shown in the drawings however, for purposes of simplicity of illustration.

At the end of each spider leg where two of the plates 16 meet, the plates may support between them a rubber or other yielding strip 17 to contact with the inner wall of body 1 and to serve as a wiper.

The spider or spiders 15 may be cast members, and plates 16 may be of flat sheets bent in conformation with the legs of the spider, and the number of legs may be varied in accordance with requirements.

It will be noted that in the construction shown in Fig. 4, the doors 2 are so related to the compartment plate 16 that the successive plates lie at an angle of approximately 45° when discharging material from a compartment to a point exterior the body 1, and that the doors are hinged at their base so that when moved down they will afford guides for the material in its discharge to points laterally of the truck.

In the operation of the device, the shaft 7 is rotated to bring the compartments successively to the position illustrated at the left hand side of Fig. 4 in which a bucket being emptied into a compartment is indicated at *b*. As the compartment is filled, the shaft is rotated to bring a second compartment into position for loading. When all the compartments are filled, they may be rotated in the direction of the arrows *c* to successively bring the compartments into discharging position, for example, for discharging through the doors at either side of the body.

Having described my invention, what I claim and desire to secure by Letters Patent, is as follows:

1. In a refuse collecting device, a cylinder, a shaft extending axially through the cylinder, a plural-leg spider carried by the shaft and plates arranged in V-shaped formation carried by the legs of the spider and intermediate the same, the plates extending longitudinally of the cylinder and forming a plurality of compartments, loading and discharge doors carried by the cylinder means for rotating the spider to bring the com-

partments successively into register with said doors.

2. In a refuse collecting device, a cylinder, a shaft extending axially through the cylinder, means for rotating the shaft, a plural-leg spider carried by the shaft and plates arranged in V-shaped formation carried by the legs of the spider and intermediate the same, the plates extending longitudinally of the cylinder and forming a plurality of compartments, and loading and discharging doors carried by the cylinder, said doors being pivoted for downward and exterior movement relative to the cylinder and adapted to form with plates of the successive compartments discharge supports extending at a downwardly extending angle relatively to the cylinder.

3. In refuse collecting devices, a cylinder, a shaft extending axially through the cylinder, means for rotating the shaft, a plural-leg spider carried by the shaft and plates arranged in V-shaped formation carried by the legs of the spider and intermediate the same, the plates extending longitudinally of the cylinder and forming a plurality of compartments, loading and discharge doors carried by the cylinder, and longitudinally extending flexible wiping members carried by opposed plates at the ends thereof adjacent the cylinder.

4. In refuse collecting devices, a cylinder, end plates carried by the cylinder, each end plate having an axial bearing hub and radially extending reinforcing webs leading from the periphery of the plate to said hub, a shaft disposed within the cylinder and supported by said hubs, means for rotating the shaft, a hub carried by the shaft, a spider carried by the hub, the spider having a plurality of legs extending radially of the hub, each leg being formed with opposed laterally extending flanges, V-shaped plates carried by the flanges of the spider and extending longitudinally of the cylinder to form a plurality of individual compartments, and loading and discharge doors carried by the cylinder.

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