

Nov. 18, 1924.

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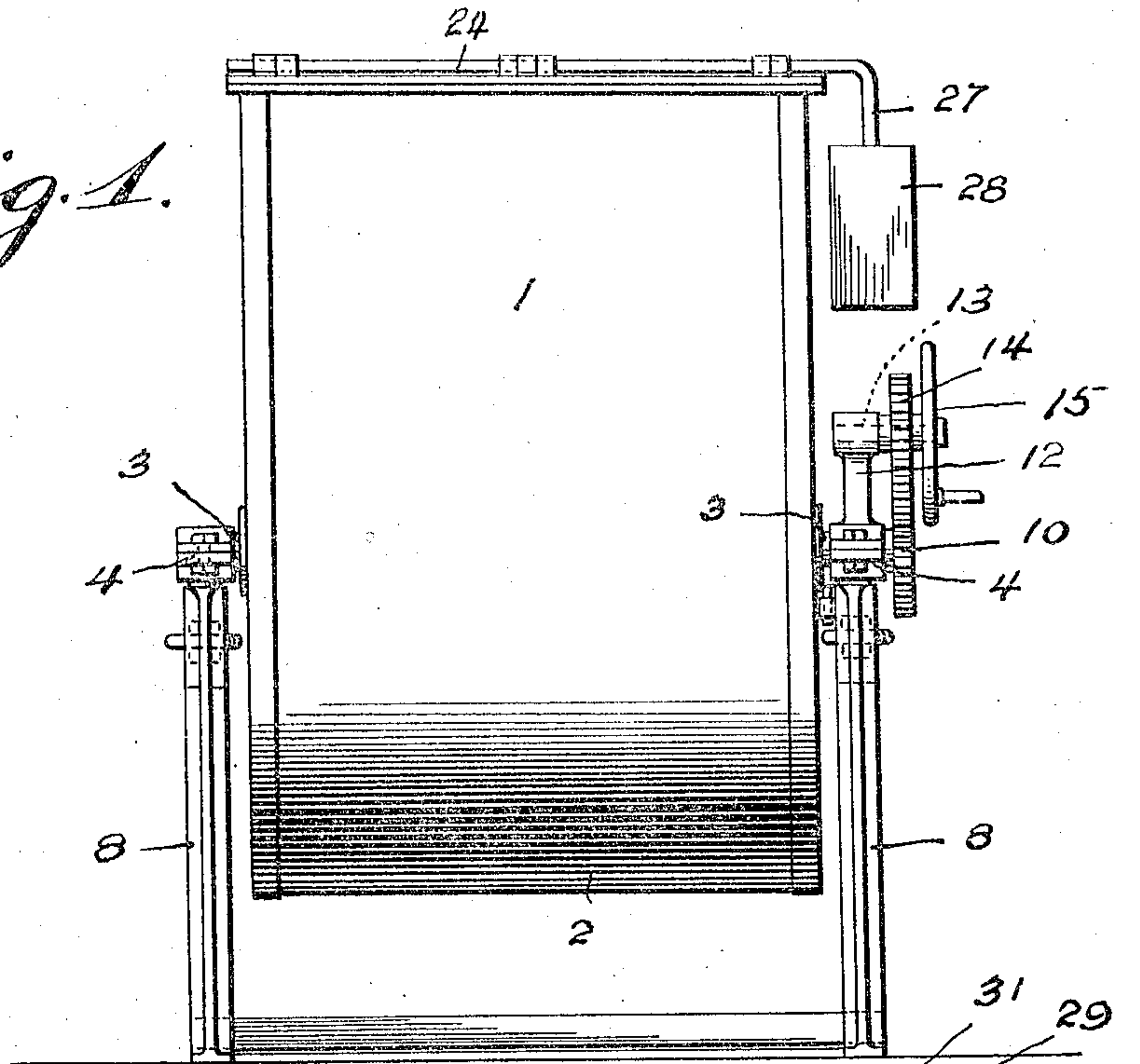
F. H. KUHN

GARBAGE RECEPTACLE

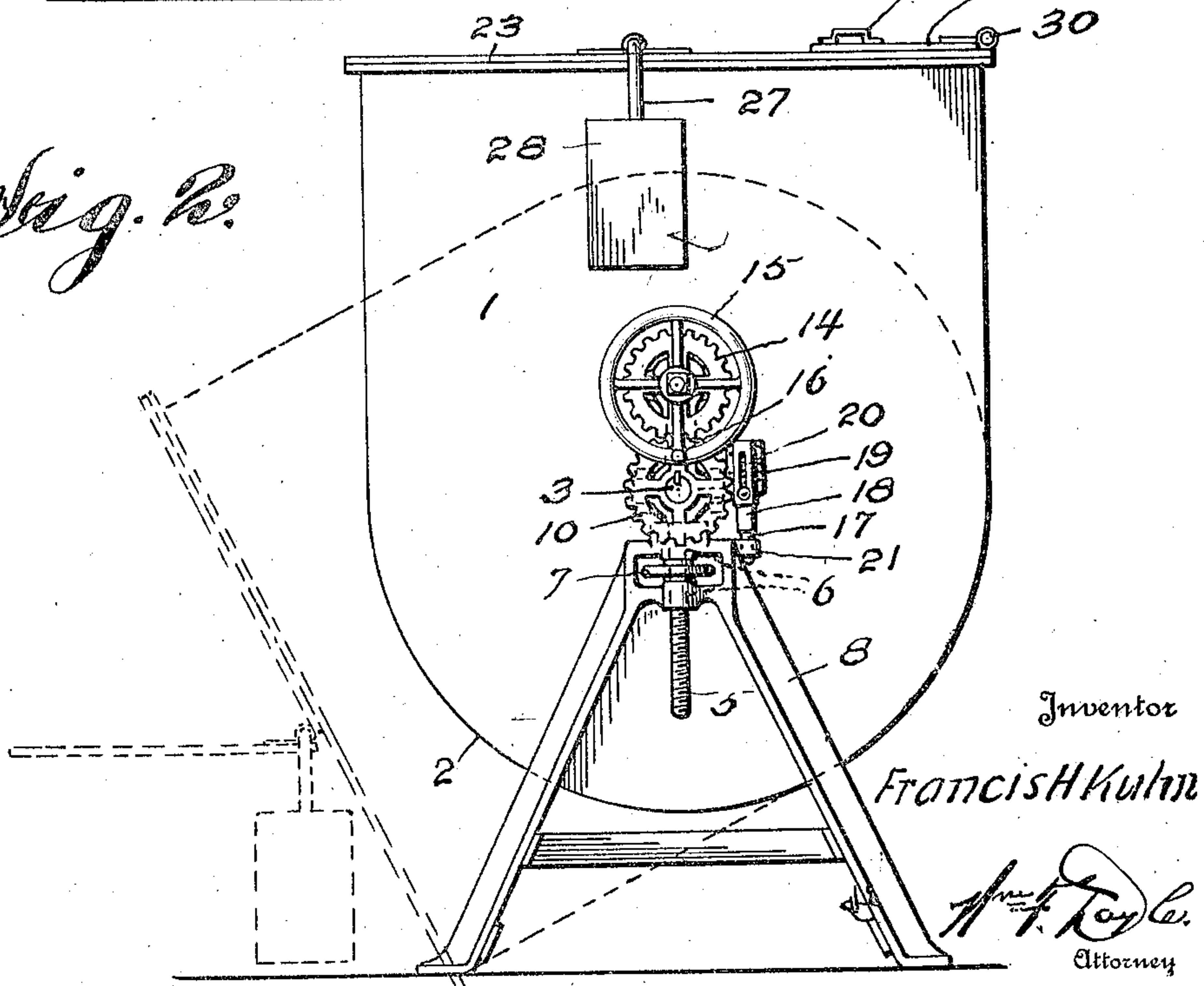
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*Fig. 1.*



*Fig. 2.*



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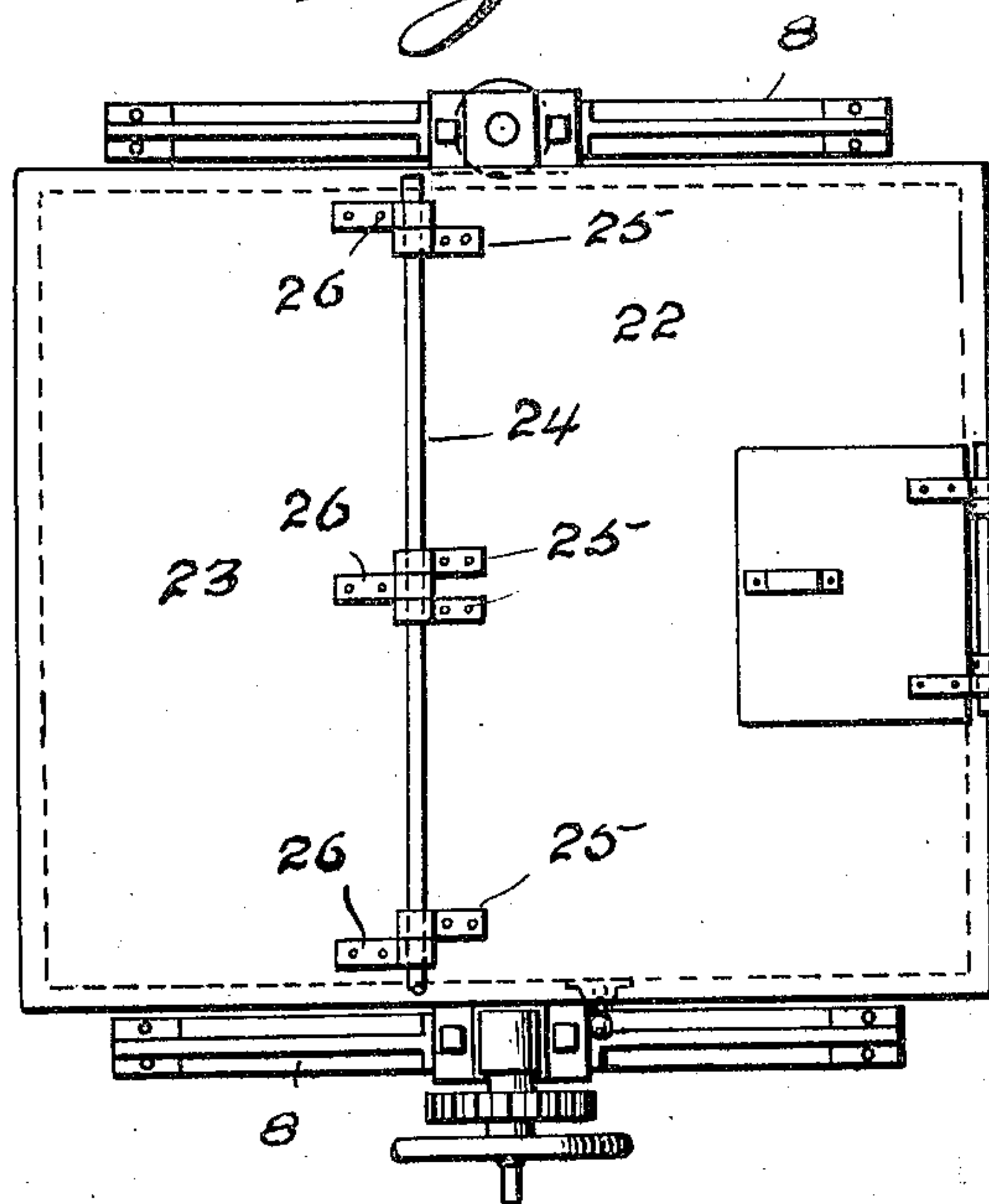
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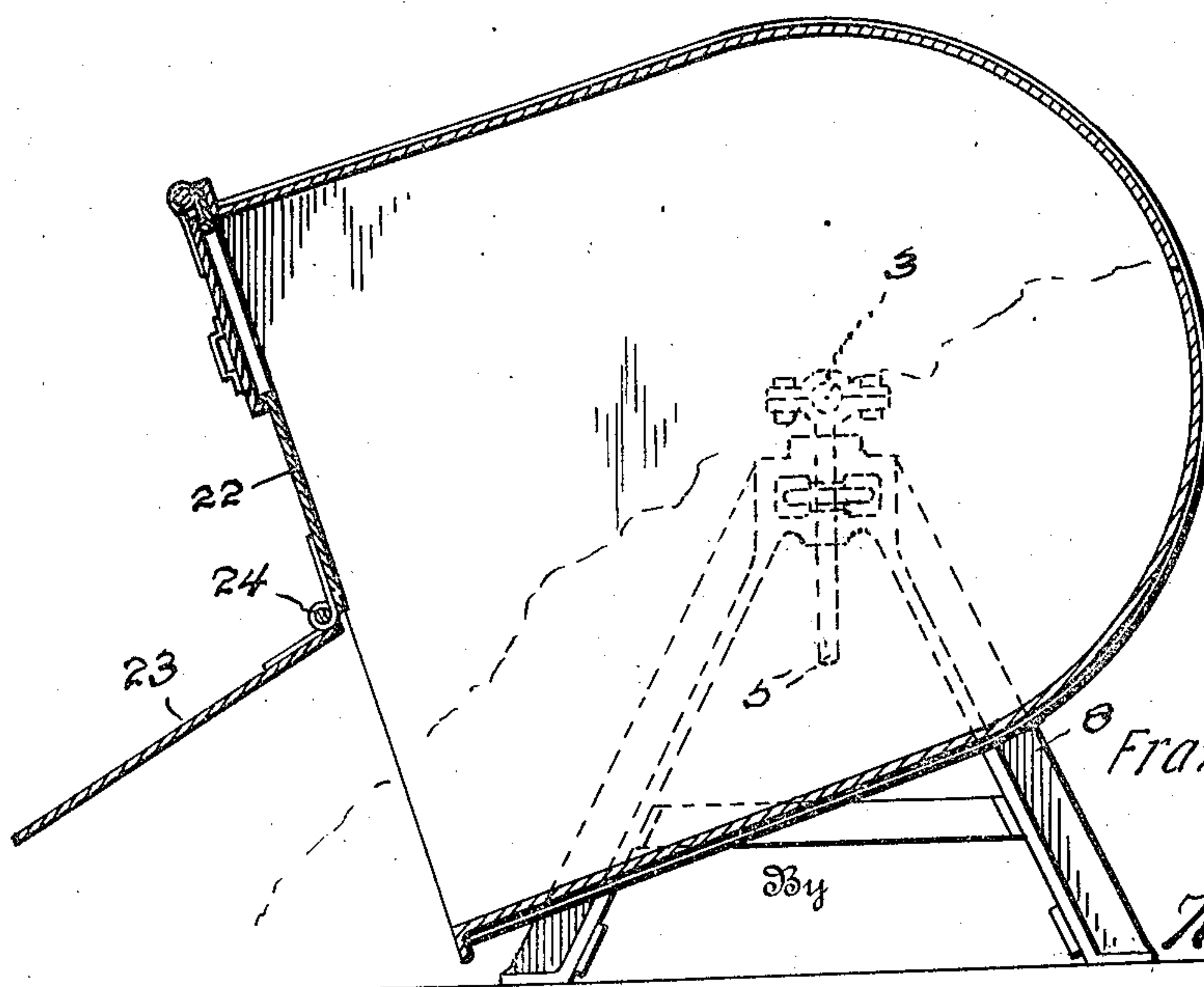
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*Fig. 5.*



*Fig. 4.*



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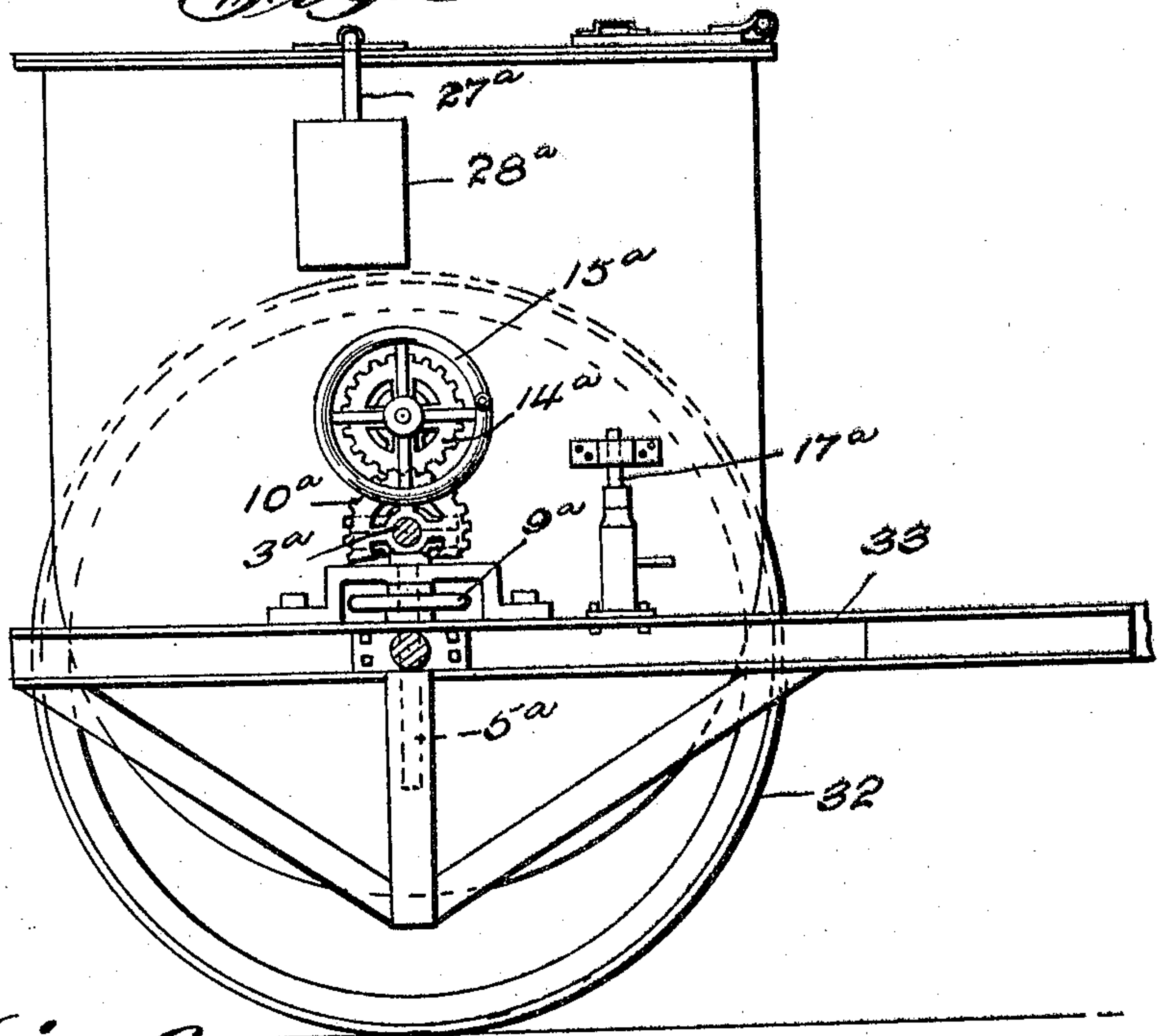
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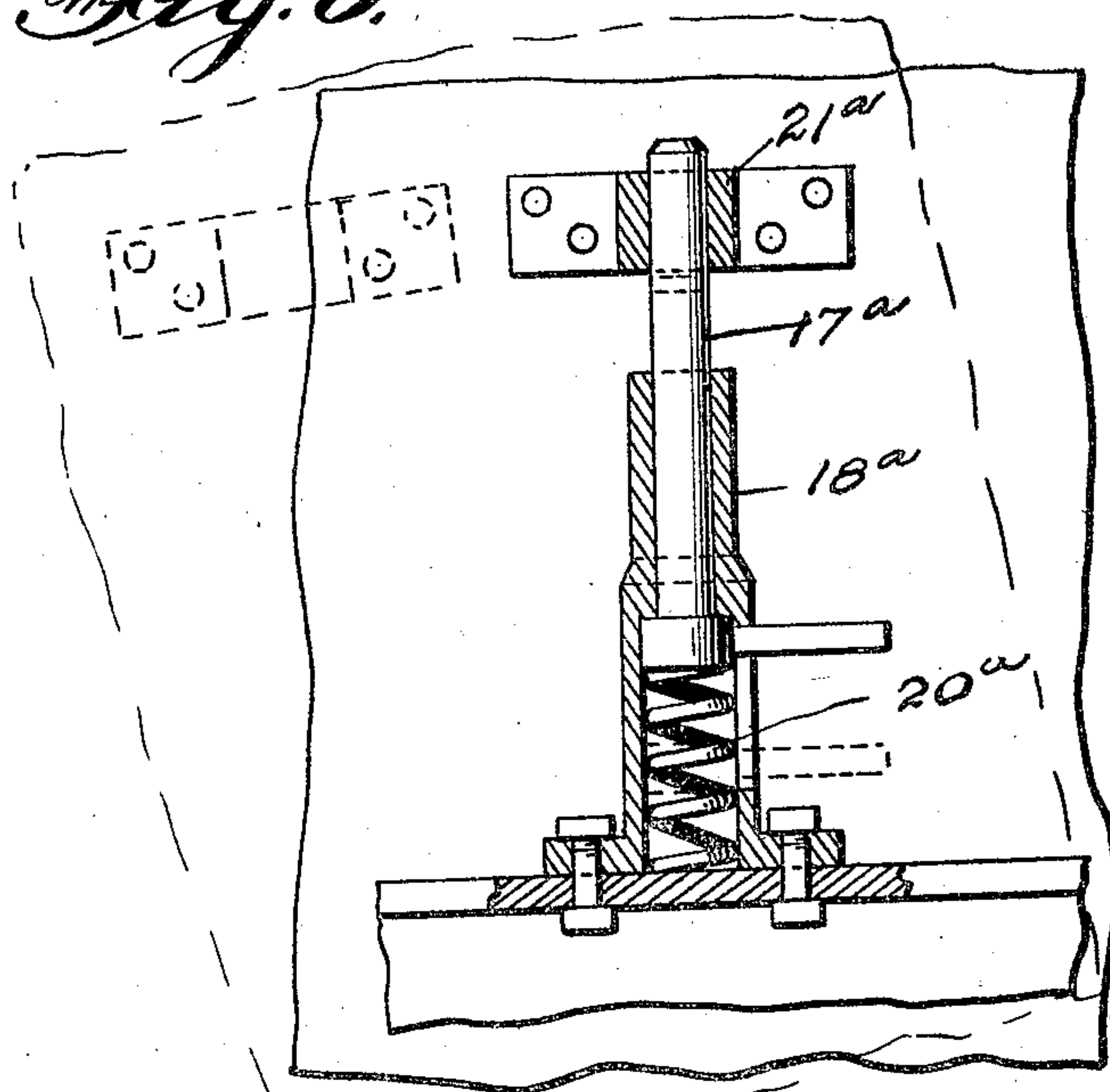
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*Fig. 5.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

FRANCIS H. KUHN, OF THE UNITED STATES ARMY.

## GARBAGE RECEPTACLE.

Application filed January 17, 1923. Serial No. 613,283.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

*To all whom it may concern:*

Be it known that I, FRANCIS H. KUHN, 1st Lieutenant, Quartermaster Corps, a citizen of the United States, stationed at Camp Meade, Md., have invented an Improvement in Garbage Receptacles, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment of any royalty thereon.

This invention relates to garbage or other refuse receptacles, especially adapted for use at Army posts, to replace the old style screen covered inclosures containing a number of galvanized iron cans; such places being breeding grounds for large numbers of flies and germs, and which are otherwise very unsanitary.

The object being to provide a simple, durable and inexpensive receptacle, into which garbage or other refuse may be conveniently deposited.

A further object being to provide a receptacle suspended in such a manner as to be readily emptied.

A further object being to provide a receptacle of such a form as to be conveniently and effectively cleaned.

A further object being to provide a receptacle that is normally closed, and will automatically open when thrown into its discharging position.

A further object being to provide means whereby the receptacle may be adjusted as to height to enable the discharge therefrom to fall into a container for removing same to a point of final disposition.

With these and other objects in view, the invention consists in the construction and combination of elements herein described, and particularly pointed out in the claims.

Similar numerals indicate corresponding parts in all the figures of the drawings in which:

Fig. 1 is a front view of the improved receptacle.

Fig. 2 is a side view of same.

Fig. 3 is a plan view.

Fig. 4 is a vertical section through the receptacle, showing same in its tilted or discharging position.

Fig. 5 is a side view, showing the receptacle mounted on wheels, in place of the stationary supports shown in other views.

Fig. 6 is a detail section of the locking means, to prevent accidental tilting of the receptacle, as shown in Fig. 5.

Reference now being had to the drawings by numerals, 1 is the receptacle constructed preferably of sheet metal of about 12 gauge, reinforced by angle-irons, to provide a light but very substantial structure the required size, for instance 750 to 800 gallons.

The receptacle, or tank, may be of any form, but it is preferably constructed with a circular bottom 2, thereby providing for easy and thorough cleansing, as well as to facilitate the discharge of the contents of the receptacle when tilted.

The receptacle may be provided with a portable mounting as shown in Fig. 5, but is preferably mounted as shown in Figs. 1 to 4, inclusive, on trunnions 3—3, secured on opposite sides of the receptacle. Said trunnions being mounted in bearings 4—4, provided with depending screw-threaded shanks 5—5, extending down through guide openings 6—6, arranged above and below openings 7—7 in the supports 8—8 arranged on opposite sides of the receptacle, and consists of properly constructed uprights secured together in such a manner as to firmly support the receptacle.

Hand wheels 9—9 are threaded on shanks 5—5, and are located between the guides 6—6. By the adjustment of said hand wheels, the receptacle may be raised or lowered as desired.

On one or both sides, as the weight of the receptacle demands, a tilting means is provided,—said power mechanism for tilting as shown consists of slightly extending one of the trunnions 3—3, and mounting thereon a gear 10.

Extending above and forming an integral part of bearing 4 is an arm 12, at its upper end being provided with a stub shaft 13, upon which is rotatably mounted a gear wheel 14 in mesh with gear 10, the latter being keyed to the trunnion of the receptacle. The ratio as between gear wheels 10 and 14 may be determined by the power required to accomplish the tilting of the receptacle 1.

Secured to, and caused to rotate with gear



wheel 14 is a hand wheel 15, provided with hand grip 16, which offers a convenient means of operating said gear wheel 14 and gear wheel 10 to tilt the receptacle.

To prevent accidental tilting of the receptacle, a spring pressed locking bolt 17 may be mounted in the housing 18, to be operated by button 19 against the tension of spring 20, to withdraw bolt 17 from keeper 21 on the support 8, for releasing the receptacle for tilting when desired.

The receptacle 1 is provided with a cover 22, a portion of which is shown at 23, which is hinged on bar 24 mounted in brackets 25, secured to the rigid portion 22 of the cover.

The hinge bar 24 is rigidly secured in brackets 26 mounted on the hinged portion 23 of the cover, to cause said hinged portion to swing open when bar 24 is rotated.

Bar 24 is extended preferably beneath one side of the receptacle, and then downwardly at 27, and at its lower end is provided with a weight 28 of sufficient size to overbalance the weight of the hinged portion 24 of the cover.

When the receptacle is tilted, the weight 28 maintains a position vertically beneath its support, thereby retaining the portion 24 of the cover in its horizontal position, and the receptacle is tilted without affecting said part,—with the result that a portion of the cover, through which the contents of the receptacle are discharged, is automatically opened when the receptacle is tilted, and is automatically closed when the receptacle is returned to its normal position.

A portion of the cover 29 may be hinged as seen at 30, and a hand-hold 31 be provided for lifting said portion to permit the depositing of garbage into the receptacle.

In Fig. 5 is shown a portable receptacle, in every particular the same as the one described, with the exception that in this form the receptacle may be used as a collector of garbage from a number of others located at various points. This receptacle may be of the same form, mounted on wheels 32, supporting the frame 33, the threaded shank 5<sup>a</sup> being adjusted by hand wheel 9<sup>a</sup>.

Rigidly mounted on trunnion 3<sup>a</sup> of the receptacle is gear wheel 10<sup>a</sup> in mesh with gear 14<sup>a</sup>, operated by hand wheel 15<sup>a</sup> for tilting the receptacle.

Bolt 17<sup>a</sup> is operated by button 19<sup>a</sup> against the tension of spring 20<sup>a</sup> in housing 18<sup>a</sup>, mounted on frame 33 to withdraw the bolt from keeper 21<sup>a</sup> mounted on receptacle 1<sup>a</sup> to prevent its tilting.

Part of the cover is weighted to automatically open, as seen, by bar 27<sup>a</sup> and weight 28<sup>a</sup>.

This device may be made in a plurality of sizes, some for permanent location adjacent to or, if desired, connected by chute

with the kitchen of a mess hall, or the like. Others may be made comparatively large and placed on wheels, as shown in Fig. 5, for collection purposes; it being necessary only to set the receiving receptacle at such an elevation as to permit placing a portable receptacle beneath its discharge, when the contents of said receiving receptacle may be discharged in one operation into the transporting receptacle, which may in turn be emptied in the same expeditious and sanitary manner at the point of final disposition.

By turning steam, hot or cold water, or other cleansing liquid into a receptacle of this character, it may be thoroughly cleansed. At no time will its contents be exposed to insects, and but very little objectionable odor discharged therefrom.

The improved receptacle here described is designed to supersede the group of galvanized iron cans, in some instances, such as for hospitals or general messes, or large hotels and restaurants, numbering ten or twelve cans, which are usually placed in a screened housing, that must first be opened and the can cover removed when garbage is to be deposited. When the cans are to be emptied, the housing must be opened and the cans, one at a time, emptied into a cart or other transporting vehicle.

The screening in the old form of housing very often becomes damaged, the can tops lost, or do not fit, and the cans soon become unserviceable from handling. The attendants fail to close the screened housing and to cover the cans, with a result that is obvious.

In addition to the great amount of work in handling the garbage in the old way, as compared with the labor and number of men required by the use of the improved receptacle here described, the entire method of disposition of the garbage, as here described, is accomplished without exposing the garbage to flies as a breeding ground, and reduces the discharge of objectionable odors to the minimum.

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

1. The combination with a garbage receptacle, of means for tiltably supporting same, comprising a gear wheel mounted rigidly on the receptacle, a gear wheel mounted on the support in mesh with said wheel on the receptacle, means for rotating the wheel on the support and means for raising and lowering the receptacle and tilting means, substantially as described.

2. The combination with a closed garbage receptacle having a support, of means for tilting same, comprising a gear wheel mounted on the support and a gear mounted on the receptacle in mesh therewith, means for ro-



tating one of the gears to tilt the receptacle, means for raising and lowering the receptacle and tilting means, and means for opening the receptacle when tilted.

5 3. The combination with a closed garbage receptacle having a support, of means for tilting same, comprising a gear wheel mounted on the support and a gear mounted on the receptacle in mesh therewith, a hand  
10 wheel secured to one of the gears to tilt the receptacle, means for raising and lowering the receptacle and tilting means, and means for automatically opening the receptacle when tilted.

15 4. The combination with a closed garbage receptacle, of means for tiltably supporting same, means for tilting same, comprising a gear wheel mounted rigidly on the receptacle, a hand wheel secured to the gear wheel  
20 mounted on the support for rotating same and tilting the receptacle, power means for raising and lowering the receptacle and tilting means, and automatic means for opening the receptacle when tilted.

25 5. The combination with a closed garbage receptacle having a support, of means for tiltably supporting same, comprising a supporting frame having bearings, trunnions on the receptacle adapted to rest in the bear-

ings, means for tilting same, comprising a 30 gear wheel mounted rigidly on the receptacle, a gear wheel mounted on the support in mesh with said wheel on the receptacle, a hand wheel secured to the gear wheel mounted on the supports for rotating same and  
35 tilting the receptacle, means for raising and lowering the receptacle and tilting means, comprising a threaded shank depending from the supporting means, a hand wheel threaded on the shank and secured in the  
40 supporting frame, and means for opening the receptacle when tilted, comprising a counterbalance weight attached to a portion of the cover to swing it on its hinge.

6. A closed garbage receptacle having a 45 support, means for tiltably mounting the receptacle, comprising trunnions on the receptacle adapted to rest in bearings in the support, means for tilting the receptacle, comprising a gear wheel mounted rigidly on  
50 the receptacle, a gear wheel mounted on the support in mesh with said wheel on the receptacle, means for rotating the gear on the support, means for raising and lowering the receptacle and tilting means, and means for  
55 opening the receptacle when tilted.

FRANCIS H. KUHN.