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CARRIER FOR FERTILIZERS, LITTER, AND OTHER MATERIALS.

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956,073. **Patented Apr. 26, 1910.**

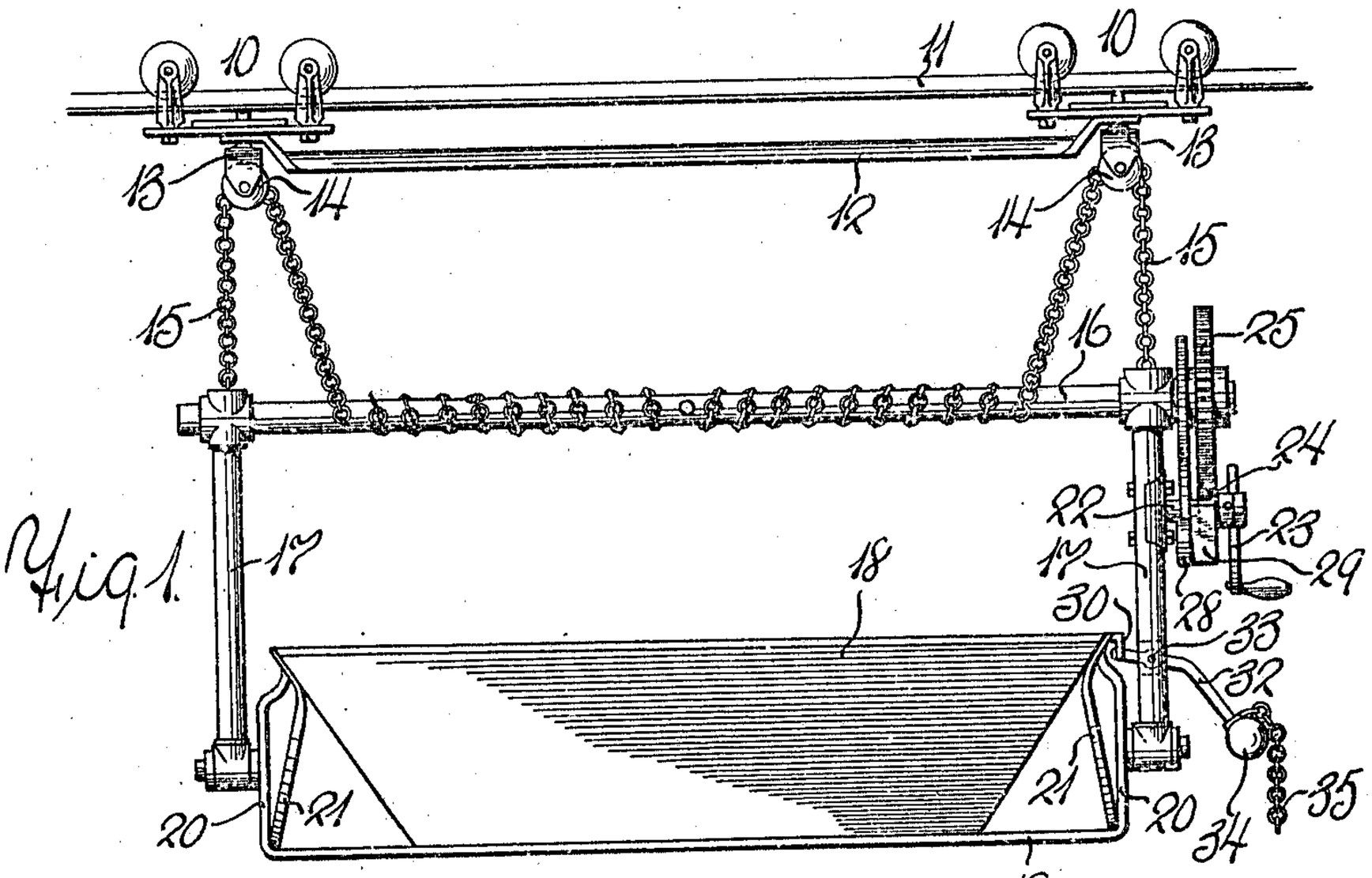

Fig. 1.

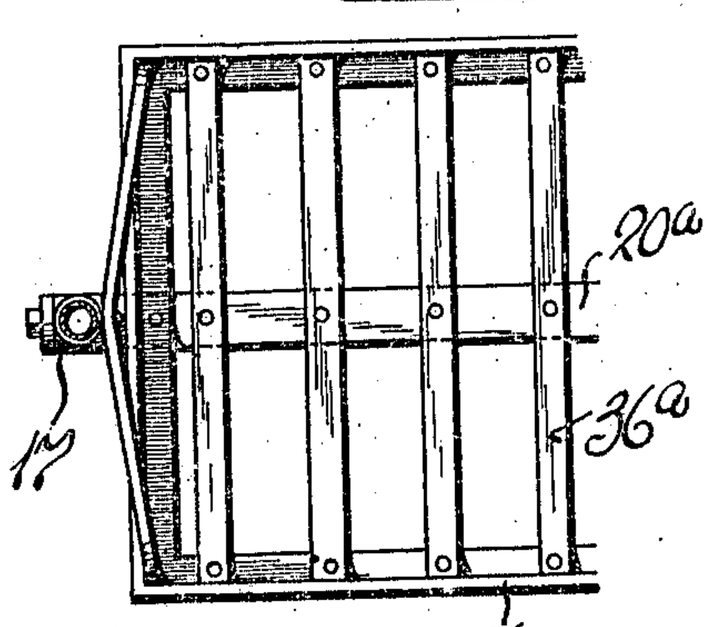

Fig. 3.

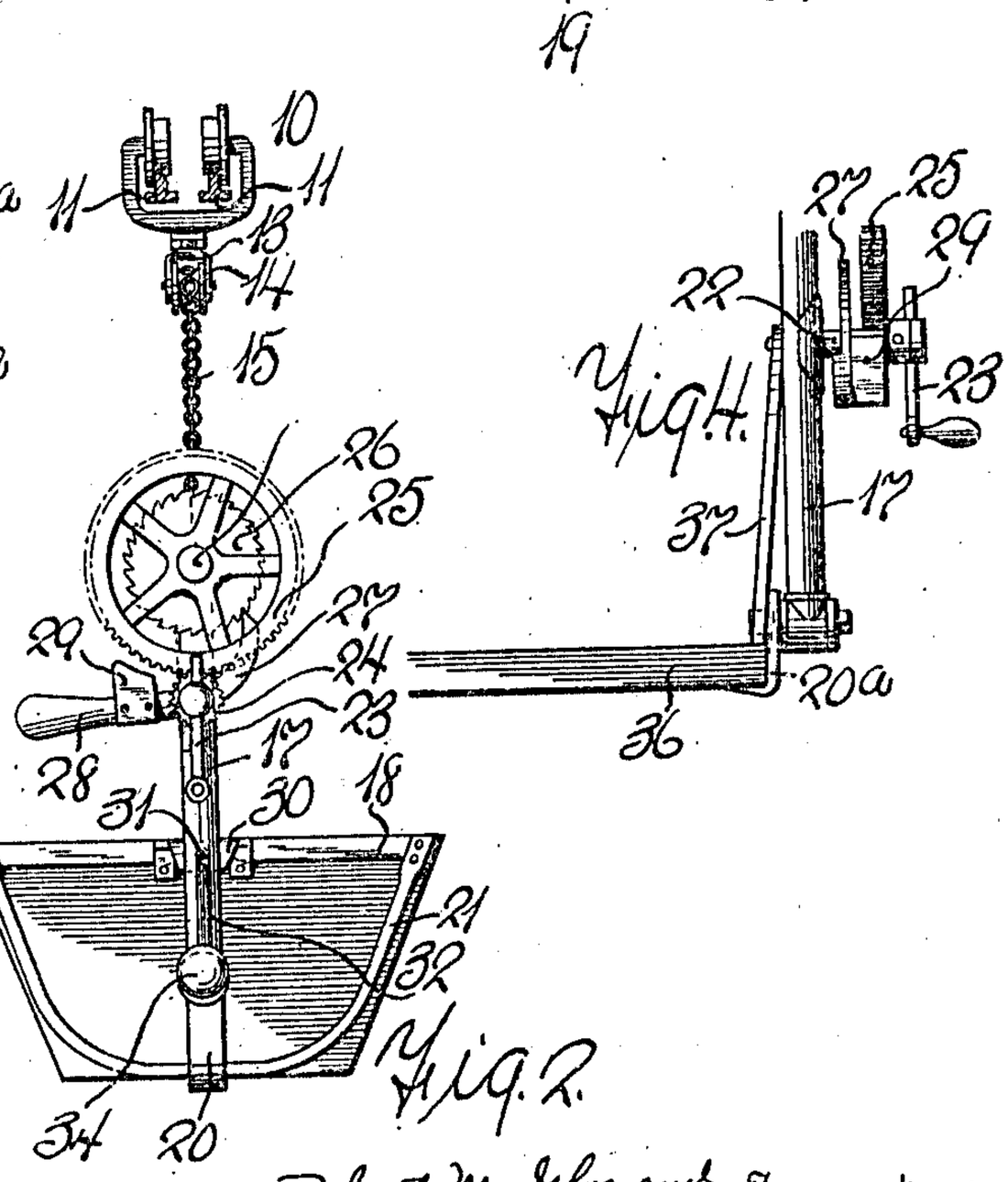

Fig. 2.

Fig. 4.

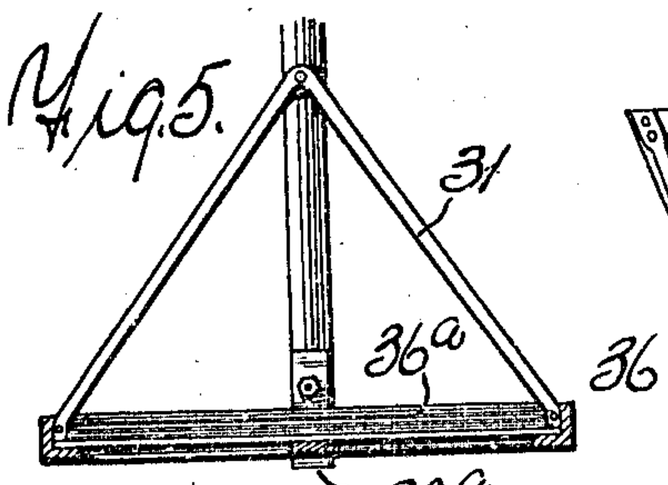

Fig. 5.

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UNITED STATES PATENT OFFICE.

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CARRIER FOR FERTILIZERS, LITTER, AND OTHER MATERIALS.

956,073. Specification of Letters Patent. **Patented Apr. 26, 1910.**

Application filed May 4, 1908, Serial No. 430,660. Renewed July 1, 1909. Serial No. 505,494.

To all whom it may concern:

Be it known that we, ROBERT M. GLOR and ALVIN J. GLOR, of Attica, Wyoming county, New York, have invented a new and useful Improvement in Carriers for Fertilizers, Litter, and other Materials, of which the following is a full, clear, and exact description.

Our invention relates to improvements in carriers, and the object of our invention is to produce a carrier which is easily and cheaply made, but which is adapted to operate conveniently and rapidly to convey material from one point to another, and to dump the material when desired.

More particularly our invention is intended to produce improvements in carriers of this kind which will enable the bucket or platform or body which does the carrying, to be quickly raised when loaded, easily lowered when desired, the speed of the descent controlled, and which can be quickly dumped in a practically automatic manner when desired.

Our invention is intended further to produce a device having a convenient ratchet control, and having a brake attached to the pawl handle so that by manipulating the brake the body which carries the material can be lowered at a desired rate of speed.

The invention is also intended to produce a structure of the kind described which while cheap and inexpensive is strong and durable.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a side elevation of a carrier showing our improvements. Fig. 2 is an end view thereof. Fig. 3 is a sectional plan of a modification showing a platform instead of a bucket. Fig. 4 is a broken side elevation of the structure shown in Fig. 3, and Fig. 5 is a cross section through the platform shown in Figs. 3 and 4.

As shown in Figs. 1 and 2 the carrier is provided with overhead trolleys 10 arranged to run on the double tracks 11, and these trolleys we do not claim here as new, but they are connected by a tie-bar 12 and carry hangers 13 which are pivotally supported so as to swivel or twist in their supports and enable the carrier to readily adapt itself to track variations. The hangers 13 carry pulleys 14 over which the chains 15 run, these chains being used for raising and lowering the carrier proper. The hanger for the carrier proper consists of the shaft 16 and the vertical supports 17 in which the shaft is journaled and which hang from the shaft. To provide for quick and easy raising of the load, the chains 15 are attached to the upper parts of the supports 17, and are also attached to the shaft 16, preferably near the center. As a result, when the shaft is turned and the chains wound thereon as hereinafter described, the support 17 and the body therein are quickly raised. The supports 17 forming a part of the carrier body hanger, carry a bucket 18 or other form of body, and this has preferably a brace 19 running longitudinally beneath it and turned up at the ends as shown at 20, these vertical parts 20 being pivoted to the lower ends of the supports 17 as shown clearly in the drawings. The bucket 18 is further braced by the braces 21 which are attached to the upper corner portions of the bucket and are supported on the main brace 19.

To provide for raising the bucket or body 18, one of the supports 17 has a stud 22 thereon, and at the end of the stud is a crank handle 23 connecting with a pinion 24 which meshes with the gear wheel 25 on the shaft 16. Thus by turning the crank, the shaft 16 is turned, the chain 15 wound thereon, and the bucket or body 18 raised. To prevent the bucket from dropping back, a ratchet wheel 26 is used which is attached to the shaft 16, and this is engaged by a pawl 27 pivoted below the ratchet wheel on the stud 22, and provided with a weighted handle 28 which normally holds the pawl in engagement with the ratchet wheel. The pawl handle is provided also with a brake shoe 29 which comes opposite the gear wheel 25, and when the operator wishes to lower the loaded bucket he can raise the load slightly by the handle 23, then lift the handle 28 to disengage the pawl, and by so doing bring the brake shoe 29 against the gear wheel 25 so as to control the descent of the bucket or body 18.

To lock the bucket in its upright position, and also to provide for easily dumping it, the

bucket has at one end a flange 30 which is notched as shown at 31 in Fig. 2, and this notch is engaged by a tilting lever 32 which is pivoted as shown at 33 in the support 17, and provided with a weighted outer end 34 which causes it to normally engage the notch of the flange 30. The chain or cord 35 can be attached to the lower part of the lever 32, and in this way the bucket which has been loaded a little heavier on one side than the other can be permitted to run off on the tracks 11 until the dumping point is reached, when the operator can pull on the chain 35, thus tilting the lever 32 and releasing the bucket so that the latter immediately turns over and dumps its contents. The bucket can then be pulled back by the chain 35, righted, and re-loaded.

For carrying many things such as loose material, silage, litter, and other material, a platform is preferable to the bucket 18, and such a platform is shown in Figs. 3 to 5. It has preferably an outer edge of angle iron 36 connected by cross slats 36^a and braced by a longitudinal brace 20^a which extends beneath the slats and is turned up at the ends so as to connect with the lower ends of the supports 17. It is not necessary to provide for dumping the platform, and so a brace 37 is arranged at the ends of the platform and extends from the corners up to the supports 17. Except for dumping, the platform carrier is operated the same as the bucket form, and it will be clearly understood that the special form of carrying body is not material, as various carrying bodies can be substituted for the bucket or platform, without affecting the principle of our invention.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent:—

1. A carrier of the kind described, comprising connecting overhead trolleys carrying pulleys thereon, a hanger for the body of the carrier, said hanger having a rotary shaft, chains connected with a part of the hanger, extended over the aforesaid pulleys, and attached to the before-mentioned shaft, and means for turning the shaft.

2. A carrier of the kind described, comprising a hanger having a rotary shaft at the top and end supports pendent from the shaft, a carrier body mounted on the aforesaid supports, trolleys to carry the hanger, means for rotating the shaft, and chains secured to the hanger, extended over the pulleys, and attached to the shaft.

3. A carrier of the kind described, comprising overhead trolleys, a carrier supported from said trolleys and having means by which the carrier may be raised and lowered in relation thereto, a dumping body suspended from the trolleys by said carrier, a tilting lever weighted at its outer end and pivoted to the carrier and adapted to engage a flange upon said dumping body, and means for raising the weighted end of said tilting lever at a distance from the carrier.

4. A carrier comprising a hanger consisting of a shaft and the supports pendent thereon, a body carried by the supports, means for raising and lowering the carrier by the rotation of the shaft, a gear mechanism for rotating the shaft, a ratchet mechanism to prevent the unwinding of the shaft, and a brake for the shaft, said brake being operated by releasing the ratchet mechanism.

5. The combination with the carrier hanger having a rotary shaft for raising and lowering it, of the gear mechanism for rotating the shaft in one direction, a ratchet wheel on the shaft, a handle pawl engaging the ratchet wheel, and a brake shoe on the pawl handle arranged to engage one of the gears when the pawl is released.

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