

F. R. ASHTON.
CARRIER.
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Fig. 1.

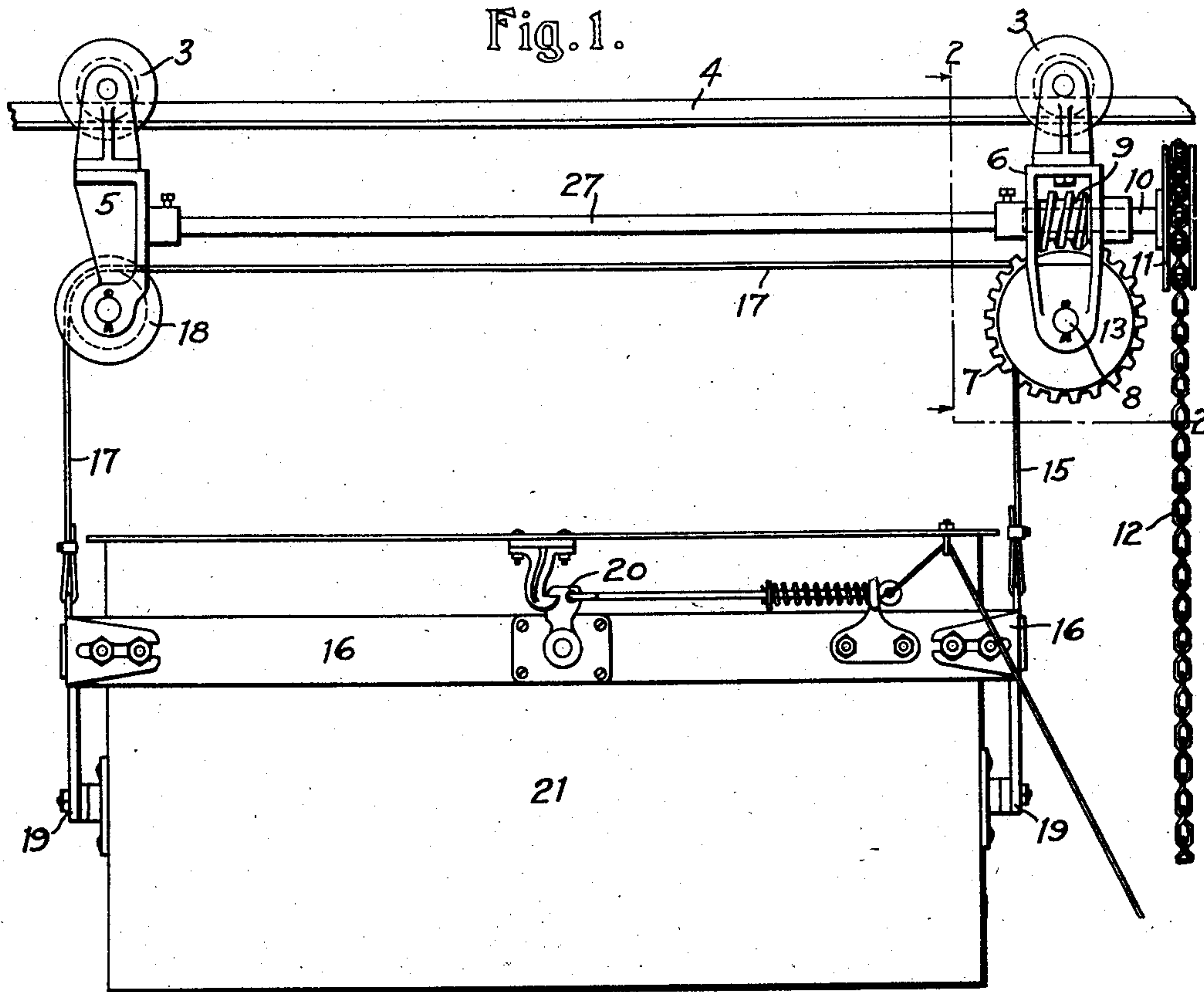
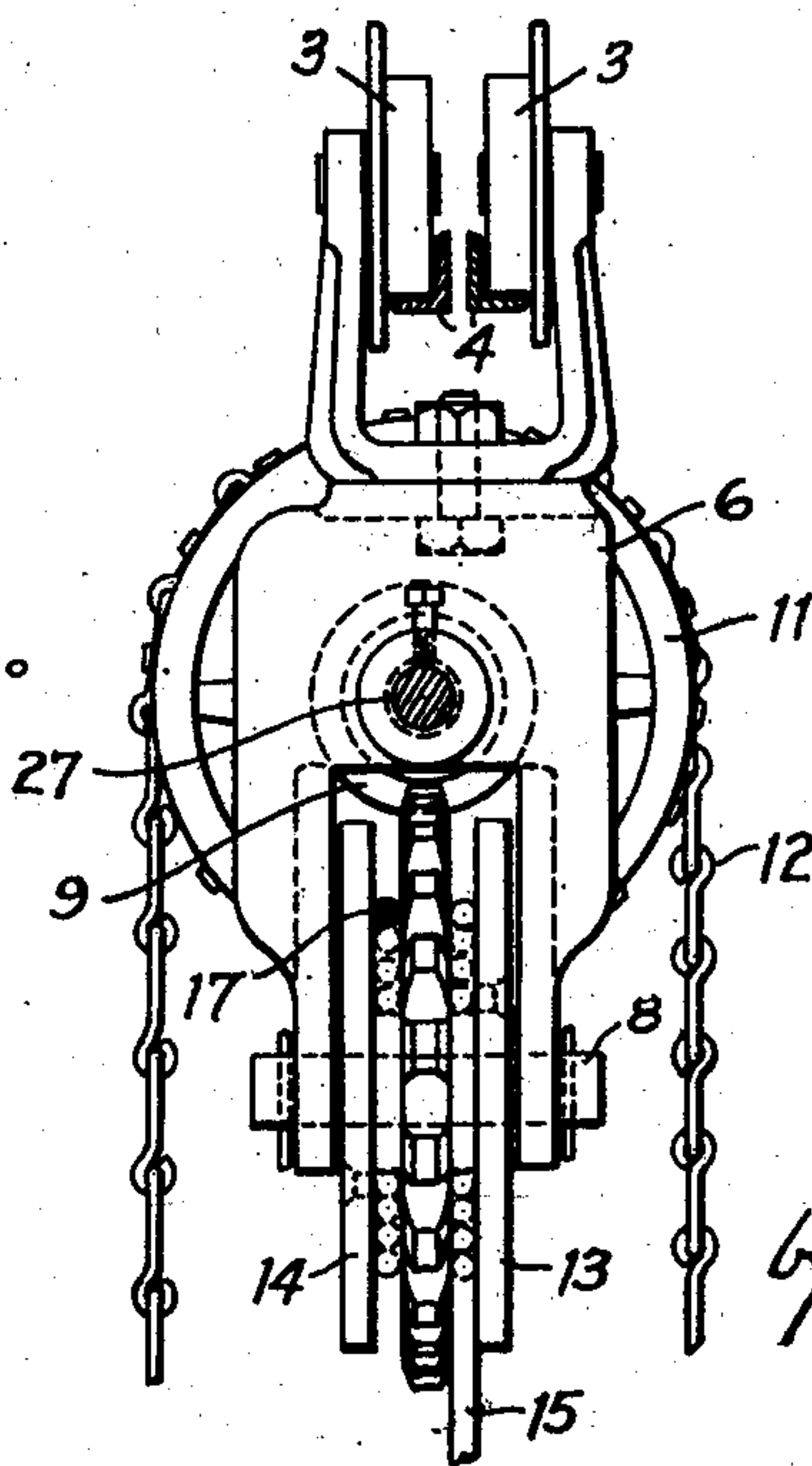


Fig. 2.



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UNITED STATES PATENT OFFICE.

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CARRIER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK R. ASHTON, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Carriers, of which the following is a specification.

This invention relates to devices of the type commonly employed for carrying feed, litter and the like, and comprising a carriage, provided with trolley-wheels adapted to run upon an elevated rail, and a receptacle suspended from the carriage by means adapted to raise and lower the receptacle.

In devices of the kind in question the receptacle is commonly supported by means of a cord or cable at each end, and hoisting-mechanism is mounted upon the carriage and connected with the two cables, means being provided for operating the hoisting-mechanism conveniently by hand.

The object of the present invention is to produce a carrier having improved and simplified hoisting-mechanism, and to this end the invention consists in the carrier hereinafter specifically described, as its essential features are defined in the succeeding claims.

In the drawings:—Figure 1 is a side-elevation of a carrier embodying the present invention; and Fig. 2 is an enlarged detail view, taken in section on the line 2—2 in Fig. 1, looking from left to right in the latter figure.

The illustrated embodiment of the invention is provided with the usual trolley-wheels 3 which run upon rails 4 of angle-iron. Upon the respective pairs of trolley-wheels are supported two frame-members 5 and 6, which are connected rigidly by a reach-rod 27. The parts just described constitute what is hereinafter designated as the "carriage" of the carrier.

The hoisting-mechanism comprises a worm 9 which is mounted upon a short shaft 10 journaled in the frame-member 6. At the outer end of the shaft 10 is a chain-wheel 11 upon which is suspended an endless chain 12. This chain depends into convenient position for manual operation, and is used to rotate the shaft 10 and the worm 9. The worm engages a worm-wheel 7 which is journaled upon a pin 8 in the frame-member 6. As shown particularly in Fig. 2, two disks 13 and 14 are fixed upon a hub rigidly connected with the worm-wheel 7, upon op-

posite sides of the latter, and these disks are so spaced from the worm-wheel as to produce winding-drums for the cables 15 and 17, upon which the receptacle 21 is supported, the space in each winding-drum being of such width as to receive only a single thickness of the cable.

The cable 15 hangs directly from one of the winding-drums, and is connected with one end of the usual frame-16 in which the receptacle 21 is mounted. The cable 17 extends from the other winding-drum, in a horizontal direction, to the opposite end of the carriage, where it passes around a pulley 18 journaled on the frame-member 5, and from the pulley the cable passes downward to the end of the frame 16. The receptacle has a pivotal connection 19, at each end, with the frame 16, so that it may be dumped in the usual manner, and it is normally held in upright position by means of the usual latch 20.

The winding-drums are so arranged, as shown in Fig. 2, that the cable 15, which depends directly from its winding-drum, hangs substantially midway between the trolley-wheels above, while the other winding-drum and the cable 17 are necessarily somewhat offset. Owing to the narrowness of the drums, however, this offsetting of the cable 17 is not substantial, and the pulley 18 can be arranged in the center of the device, so that the vertical part of the cable 17 will be centrally arranged.

When the hand-chain 12 is operated the winding-drums operate upon the two cables simultaneously, so that the receptacle is always maintained in horizontal position while being raised and lowered.

My invention is not limited to the details of construction and operation of the illustrated embodiment thereof, but may be embodied in various other forms within the nature of the invention as it is defined in the following claims.

I claim:—

1. A carrier having, in combination, a carriage provided with trolley wheels adapted to run upon an elevated rail, a receptacle, and means for suspending the receptacle from the carriage and for raising and lowering it, comprising cables attached to the ends of the receptacle, a pulley at one end of the carriage, a hoisting-drum at the other end of the carriage, and manually-operable

means for rotating the drum, one of said cables extending from the receptacle directly to the drum, so as to have a downward pull thereon, and the other cable extending from the receptacle over the pulley and thence horizontally to the drum.

2. A carrier having, in combination, a carriage provided with trolley wheels adapted to run on an elevated rail, a receptacle, and means for suspending the receptacle from the carriage and for raising and lowering it, comprising cables attached to the ends of the receptacle, a pulley at one end of the carriage, a drum at the other end of the carriage provided with end-plates, a worm-wheel fixed to the middle of the drum and producing, with the end-plates, narrow

winding-slots on either side of the worm-wheel, the drum being located off-center with respect to the carriage, so as to locate one winding-slot centrally beneath the trolley-wheels, and manually-operable means, comprising a worm engaging the worm-wheel, for rotating the drum, one of said cables extending from the receptacle directly upward to said centrally-located winding-slot, and the other cable extending from the receptacle over the pulley, and thence to the other winding-slot.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
