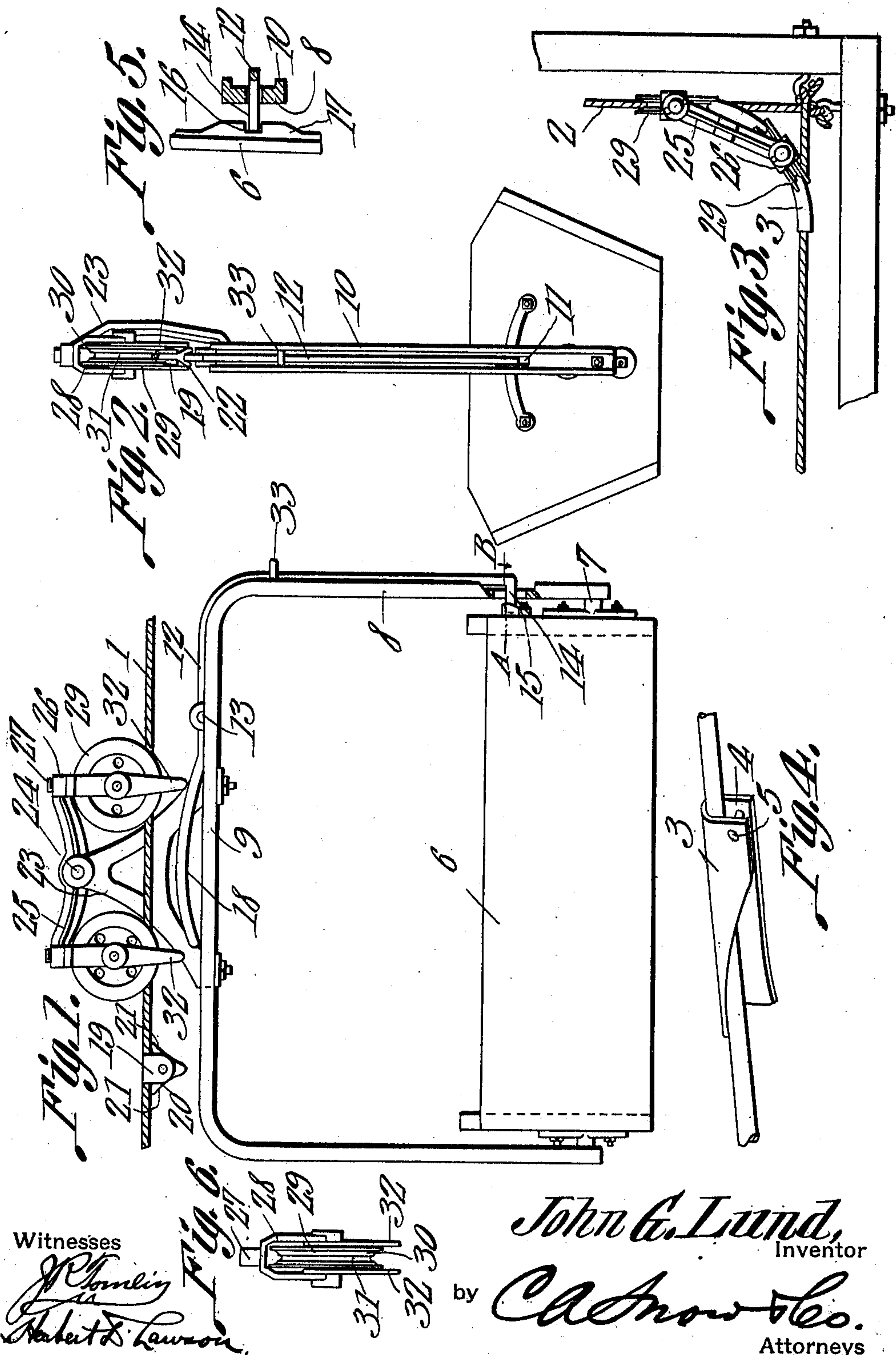


J. G. LUND.
OVERHEAD CARRIER.
APPLICATION FILED MAY 16, 1910.

988,795.

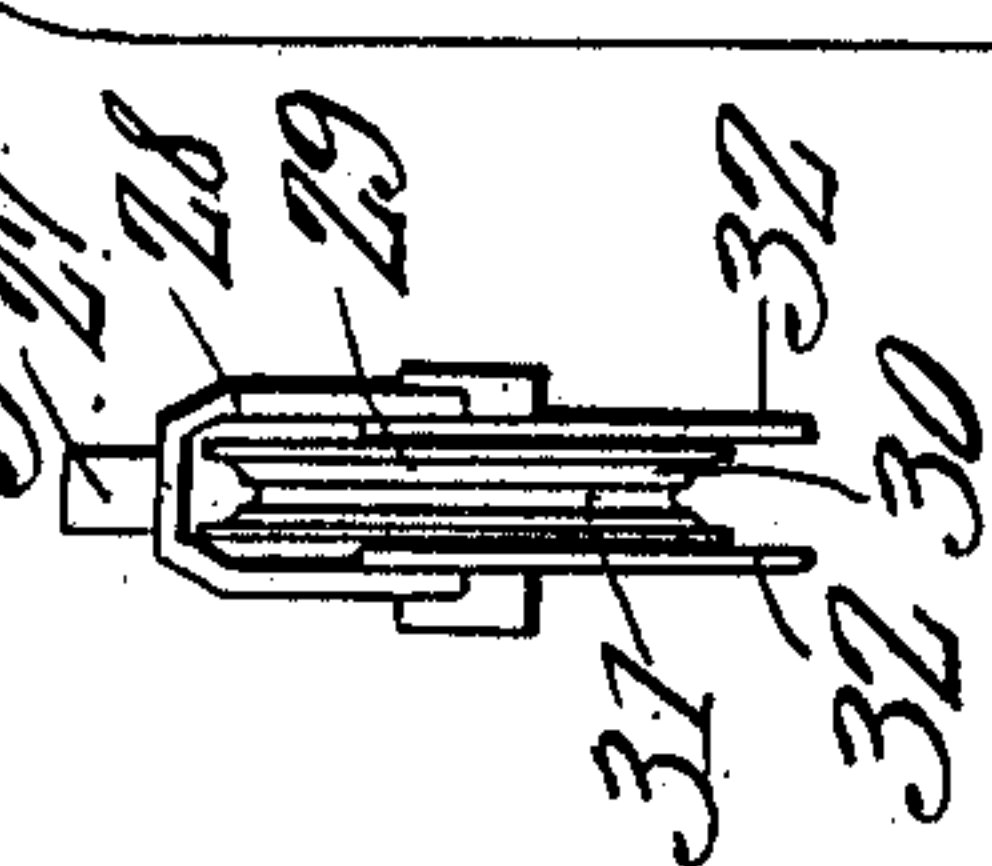
Patented Apr. 4, 1911.



Witnesses

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Fig. 6.



by

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UNITED STATES PATENT OFFICE.

JOHN G. LUND, OF MINNEAPOLIS, MINNESOTA.

OVERHEAD CARRIER.

988,795.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed May 16, 1910. Serial No. 561,761.

To all whom it may concern:

Be it known that I, JOHN G. LUND, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Overhead Carrier, of which the following is a specification.

This invention relates to overhead carriers for conveying litter and the like and its object is to provide a device of this character which is especially adapted for making short turns.

Another object is to provide a novel form of carriage for supporting the bucket or receptacle from the supporting rail or cable, said carriage being so constructed as to travel smoothly along the rail or cable and along the switch provided at the turns.

A still further object is to provide improved means for tripping the bucket or receptacle locking lever at the point where the dumping is to take place, the tripping device being so constructed as to maintain its position upon the wire without the necessity of clamping or otherwise securing it thereto.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of a conveyer constructed in accordance with the present invention a portion of one of the hangers being shown in section. Fig. 2 is an end elevation of the said conveyer, the cable or rail being shown in section. Fig. 3 is a plan view of a switch on which the carriage is adapted to travel, said carriage being shown in position thereon, the bucket or receptacle being removed. Fig. 4 is a perspective view showing the manner of connecting the switch to the rail or cable. Fig. 5 is an enlarged section on line A—B Fig. 1. Fig. 6 is an end elevation of one of the supporting wheels and its yoke.

Referring to the figures by characters of reference 1 designates a supporting cable or rail adapted to be stretched along a straight line and secured at its ends, one end of this rail or cable, which constitutes a portion of the track over which the carriage hereinafter described is adapted to travel, being

extended over another rail or cable constituting a continuation of the track and which has been indicated at 2 in Fig. 3. The adjoining portions of the two track sections are adapted to be connected by an arcuate switch member 3 the ends of which are preferably channeled as shown at 4 and embrace the sections 1 and 2, there being rivets, bolts or the like extended therethrough as at 5 for the purpose of clamping said channeled portions upon the sections 1 and 2.

The carrier constituting the present invention includes a bucket or receptacle 6 which can be of any preferred construction and has trunnions 7 projecting from the ends thereof at points off center and into the lower end portions of hangers 8. These hangers extend downwardly from the ends of a cross strip 9 and may, if desired, be formed integral therewith. One of the hangers is preferably provided with longitudinally extending side flanges 10 and a slot 11 is formed in said hanger at a point adjacent but above one of the trunnions 7. A lever 12 is fulcrumed upon the cross strip 9 as indicated at 13 and is extended downwardly within the channel formed between the flanges 10, there being a locking finger 14 at the lower end of this lever and which is movably mounted within the slot 11. A downwardly extending lug 15 is preferably formed at the free end of the finger 14 and is adapted to be normally seated within a notch 16 formed at the center of a cam plate 17. This cam plate is arcuate as shown in Fig. 2 and is secured to one end of the bucket or receptacle 6. Obviously, as long as the finger 14 is seated within the notch 16 the bucket 6 is prevented from swinging upon its trunnion 7. By reason of the peculiar construction of the lever 12 the finger 14 is normally held by gravity within the notch 16. The upper end of the lever 12 is bowed as indicated at 18 and is adapted to move against a trip of novel construction. As shown in Fig. 1, this trip consists of a U-shaped member 19 which is slidably mounted on the track 1 and has a block 20 pivotally mounted therein below the track. This block has upwardly diverging gripping fingers 21 integral therewith and a downwardly extending forked actuating member 22 disposed normally in the path of the bowed portion 18 of lever 12.

A substantially A-shaped hanger 23 is secured to the middle portion of the cross strip

9 and is bowed vertically as shown particularly in Fig. 5 so as to bring the upper portion thereof into position nearly in vertical alinement with the track 1. A stud 24 extends laterally from the upper portion of this hanger and overhangs the track, there being a rocking member 25 fulcrumed upon this stud at an intermediate point provided at its ends with eyes 26. Stems 27 are mounted for rotation within these eyes and project upwardly from inverted yokes 28; there being a supporting wheel 29 journaled within each of these yokes. Each wheel has an annular groove 30 of sufficient width to readily receive the curved or switch plate 3; and an inner groove 31 is also formed within the peripheral portion of each wheel and which is of sufficient width to receive the rail or cable 1.

Guard fingers 32 are pivotally mounted within the yokes 28 and extend downwardly below the wheels 29 and at opposite sides thereof; these fingers being capable of readily swinging in the direction in which the wheels are traveling and being normally positioned below the track section so as to prevent the wheels from jumping off of the section. However, when the wheel is traveling around a curve, as upon one of the switch members 3, the outer guard finger 32 will swing upwardly and slip over those portions of the track sections 1 and 2 which project beyond the outer or convex edge of the switch member 3.

A guide loop 33 may be mounted on the flange hanger 8 for the purpose of preventing the depending portion of the lever 12 from swinging laterally.

It will be apparent that when the device, which has been described, is traveling along the track, the wheels 29, by reason of the fact that they are close together and are connected by vertical pivots to the rocking arm 25, will travel freely along an abruptly curved switch plate 3. During this movement, the outer guard fingers 32 will slip over the projecting end portions of the track sections 1 and 2 and will return by gravity to their normal or depending positions after the switch plate has been passed. By reason of the construction described, the carrier can be operated close to the corners of a barn or other structure. When it is desired to dump the contents of the carrier at a predeter-

mined point, the member 19 is slipped along the tracks until it arrives at said point. It is not necessary to secure the same in place after it has thus been adjusted because, when the carrier approaches the tripping device, the curved portion 18 of the lever 12 will strike the forked member 22 and as this member is located below the pivot of the block 20 one of the fingers 21 of said block will be caused to bite into the track and thus hold the tripping device against sliding movement while the arcuate portion 18 of the lever 12 is being depressed. This depression of the lever results in the withdrawal of the finger 14 from the notch 16, and, inasmuch as the bucket 6 is mounted off center, it will promptly swing to an inverted position as soon as thus released. As has been heretofore pointed out the lever 12 will return by gravity to its normal position as soon as it leaves the trip.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. An overhead carrier including a hanger, a rock arm, yokes swiveled within the end portions of the rock arm, supporting wheels journaled within the yokes, guards depending from the yokes and extending below the supporting wheels, said guards being pivotally mounted, and a bucket engaging structure carried by the hanger.

2. An overhead carrier including a centrally off-set hanger, a rock arm centrally fulcrumed upon the upper portion of the hanger, yokes swiveled within the end portions of the arm and mounted for rotation about substantially vertical axes, supporting wheels journaled within the yokes, guard fingers depending from the yokes and extending below the supporting wheels, and a bucket engaging structure carried by the hanger.

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

JOHN G. LUND.

Witnesses:

M. S. THURBER,
F. T. DAVIS.