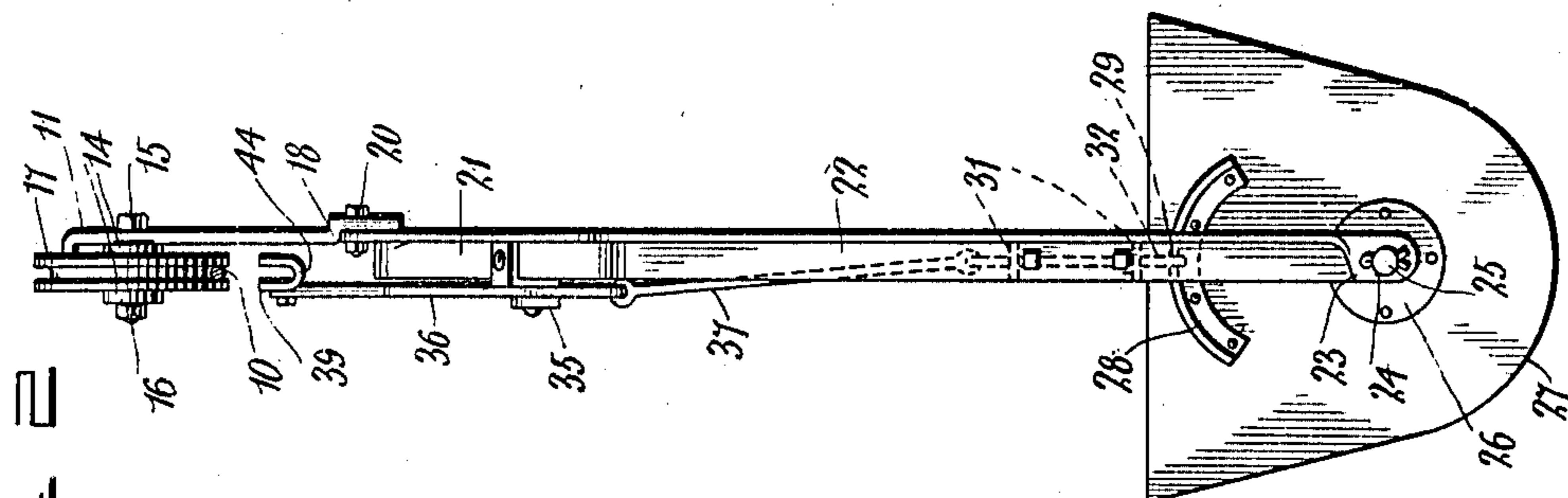


LITTER CARRIER.

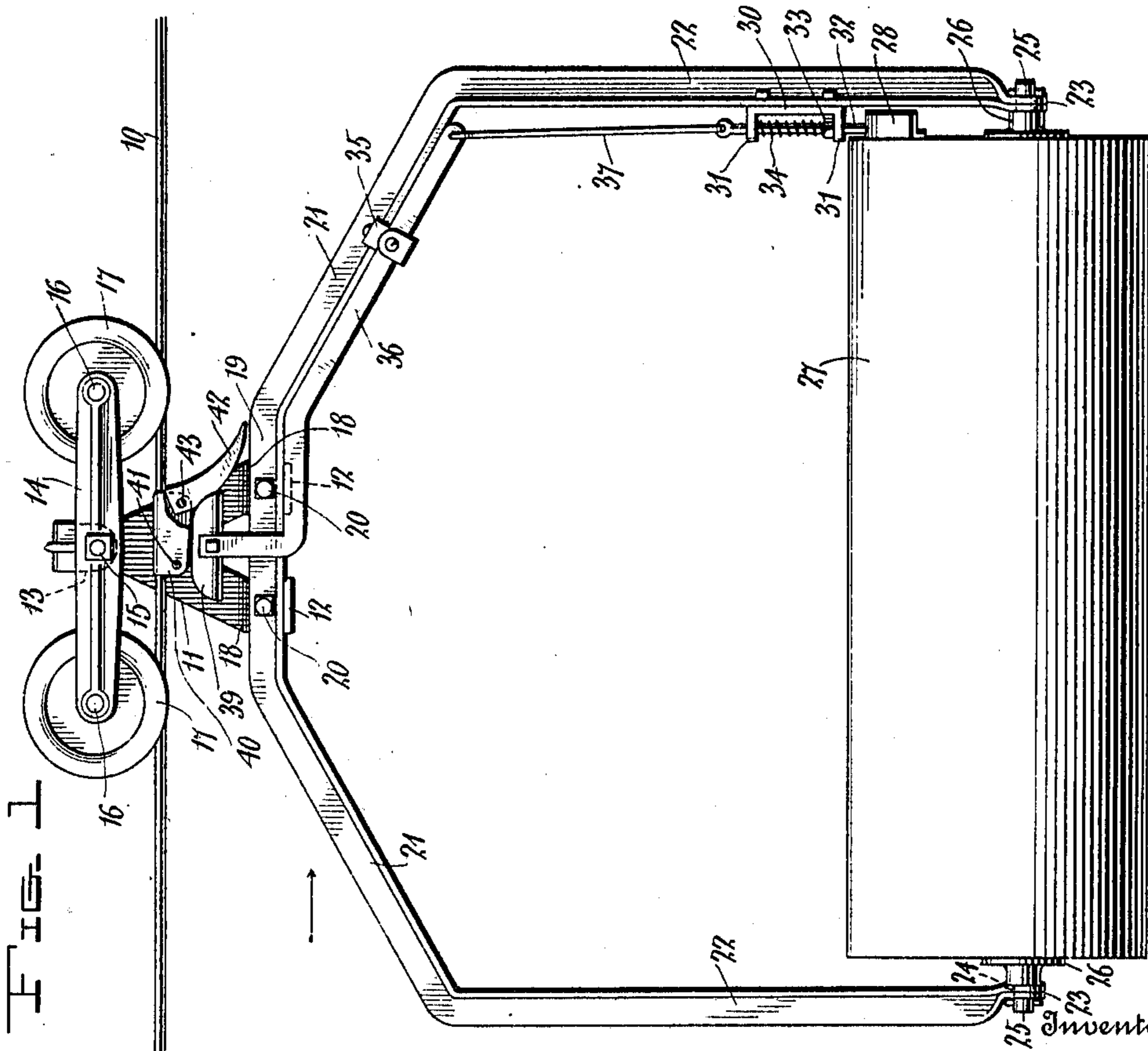
Patented Dec. 13, 1910.

2 SHEETS--SHEET 1.

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Witnesses

W. J. Harris  
L. N. Gillis

Fred Strand  
and Austin Strand

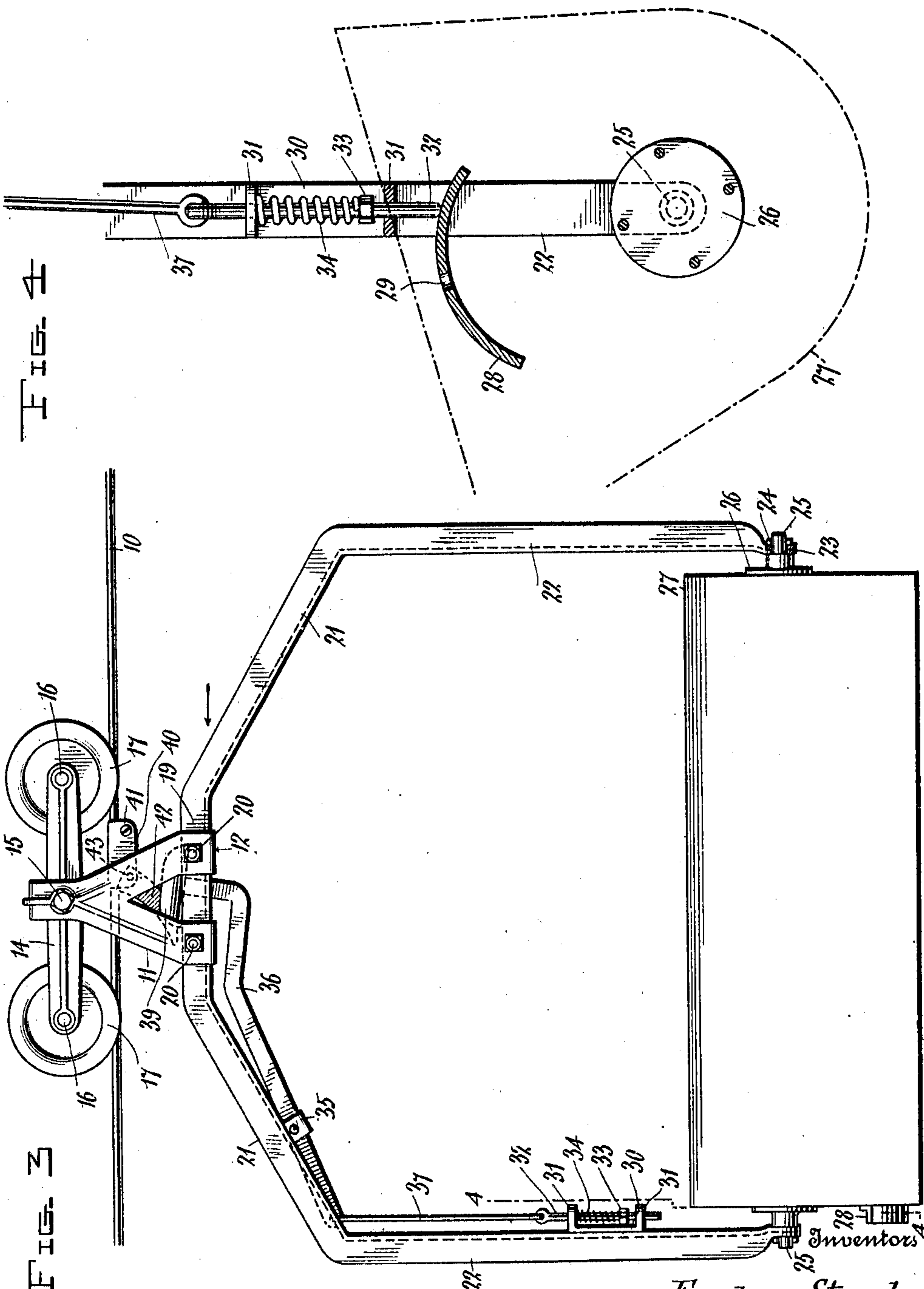
By *Handel Handel* Attorneys

978,340.

F. & A. STRAND.  
LITTER CARRIER.  
APPLICATION FILED FEB. 21, 1910.

Patented Dec. 13, 1910.

2 SHEETS-SHEET 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

FRED STRAND AND AUSTIN STRAND, OF DENNISON, MINNESOTA.

LITTER-CARRIER.

978,340.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed February 21, 1910. Serial No. 545,153.

*To all whom it may concern:*

Be it known that we, FRED STRAND and AUSTIN STRAND, citizens of the United States, residing at Dennison, in the county of Goodhue, State of Minnesota, have invented certain new and useful Improvements in Litter-Carriers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to litter carriers and has special reference to a device adapted to convey litter of all descriptions along wire and dump the same at a predetermined position.

One object of the invention is to provide an improved form of trip to actuate the lever which controls the release for the bucket common in such devices.

Another object of the invention is to provide an improved construction of angle iron frame for devices of this description, the ends of the frame being bent in a novel manner to provide metal for journal bearings.

With the above and other objects in view, the invention consists in general of a novel construction of frame supporting a dumping bucket, a latch for said bucket, and an improved form of trip adapted to be attached to a wire on which the bucket is carried.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claim.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a side elevation of the bucket, the parts being in the position assumed when the bucket is traveling with a load, and the trip being in the position taken just at the time the latch lever comes in contact therewith. Fig. 2 is an end elevation of a bucket constructed in accordance with this invention. Fig. 3 is a view from the side opposite to that shown in Fig. 1 and the bucket shown in its tripped position. Fig. 4 is a section on the line 4—4 of Fig. 3.

This bucket is intended to run on a single wire which is here indicated as at 10. The supporting frame for this bucket includes a casting 11 having spaced legs provided with inwardly turned ends 12 and an inwardly and downwardly directed upper end 13.

Supported upon the upper end of this casting are longitudinal members 14, the members being attached intermediate their ends to the frame. One of these members 14 lies between the body of the casting 11 and the downwardly directed end 13 while the other member 14 is secured to this end 13 on the side opposite the first mentioned member. A single bolt 15 passes through both members 14, the body of the casting 11 and its end 13. The members 14 are thus spaced apart by the end 13 and at each end of these members are opposed openings for the reception of axle pins 16 whereon are mounted double flanged wheels 17 which run along the wire 10. Spaced from the inwardly directed ends 12 the casting 11 is provided with lips 18. The remainder of the supporting frame is made of a length of angle iron, the central portion of which is indicated at 19 and this central portion lies between the ends 12 and lips 18 of the casting 11, being secured thereto by means of suitable bolts 20.

It is to be observed that one leg of the angle iron rests on the ends 12 while the other leg rests against the casting 11 above said ends. On each side of this central portion 19 the angle iron is inclined downwardly as at 21 and from the ends of these downwardly inclined portions the angle iron is bent to extend downward as at 22, the two portions 22 being parallel. The terminal portions of the angle iron are bent in such manner that the two legs come together as indicated at 23 and these portions extend transversely of the wire 10 when the frame is hung upon the wire. By means of this bending of the legs of the angle iron together a sufficient thickness of metal is provided so that it may have openings 24 formed in each of the double portions for the reception of trunnion pins 25 which are formed on trunnion castings 26. These trunnion castings are secured to the ends of a trough-shaped dumping bucket 27 and the bucket is so proportioned that when full the center of gravity of the bucket will lie above the axis of the trunnions. On one end of this bucket is secured an angle iron 28 of arcuate form and the center of the arc to which this angle iron is bent is located above the axis of the trunnions 25. Centrally of this angle iron 28 is an opening 29.

On the inside of the angle iron frame at a point immediately above the angle iron 28 is a bracket 30 having spaced ears 31 formed

thereon and through these ears extends a latch pin 32. Adjacent the lower one of the ears 31 this latch pin is provided with a collar 33 fixed thereon and between the collar 33 and the upper ear 31 is a spring 34 which normally tends to force the latch pin downward. On the same side of the angle iron frame as the bracket 30 but located on the portion 21 on that side is a pivot clip 35 to which is pivoted a lever 36, the lever being pivoted intermediate its ends and extending at one end from the pivot point to a point substantially above the bracket 30. This end of the lever is connected to the latch pin 32 by a link 37. The other end of the lever extends to a point beneath the center of the frame and is there upwardly bent as at 38. On this upwardly bent end is carried a U-shaped striker 39.

The trip employed with this bucket consists of a U-shaped piece of elastic metal of such size as to snugly embrace the wire 10 between the arms of the U, and this portion of the trip is indicated at 40. Through the arms of the U and adjacent the wire extends a clamping screw 41 which, when tightened, serves to draw the arms of the U together and clamps the trip firmly in position on said wire. Pivoted to this portion of the trip is a trip arm 42 of curved contour and this trip arm is connected to the clip 40 by means of a pivot bolt 43, the arm and bolt being so positioned and proportioned that as the lower end of the arm 42 is swung upward in one direction its motion will be limited by its base portion 44 coming in contact with the wire 10 as clearly indicated in Figs. 1 and 3. The motion of the trip-arm in the opposite direction is much freer and the arm may be raised so that it lies substantially parallel to the wire 10.

Reference being had to Fig. 1 it will be seen that as the bucket and its frame move along the wire the striker 39 will contact

with the trip arm 42 and move the trip arm until its motion is arrested by its base portion contacting with said wire. The trip arm will then act upon the striker 39 to move the same downward with the result that the lever 36 will be rotated about its pivot and the latch pin 32 be drawn out of the opening 29. This will release the bucket 27 which will automatically dump and may then be moved back for refilling.

It is to be noted that the small shafts used for the axles of the sheaves are preferably of cold roll steel and that these sheaves are to be provided with roller bearings of any preferred form. It will further be noted that the spring is such that the carrier travels about four inches after the member 39 engages the trigger 42 and is depressed by said trigger so that ample time is allowed for dumping the bucket.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

In a litter carrier, a tip bucket, a bail to which said bucket is pivoted, coacting latch means on said bail and bucket, a trip lever on said bail operatively connected to the latch means on the bail, and a guide end on said lever comprising a plate bent to U-shape with the mouth of the U uppermost; in combination with a trip finger pivoted to a fixed object and adapted to be received between the arms of the U-shaped plate, and means to limit the movement of said trip finger in one direction.

In testimony whereof, we affix our signatures, in presence of two witnesses.

FRED STRAND.  
AUSTIN STRAND.

Witnesses:

W. W. WESTCOTT,  
AUSTIN F. AUSTINSON.