

W. A. LOUNSBERY.

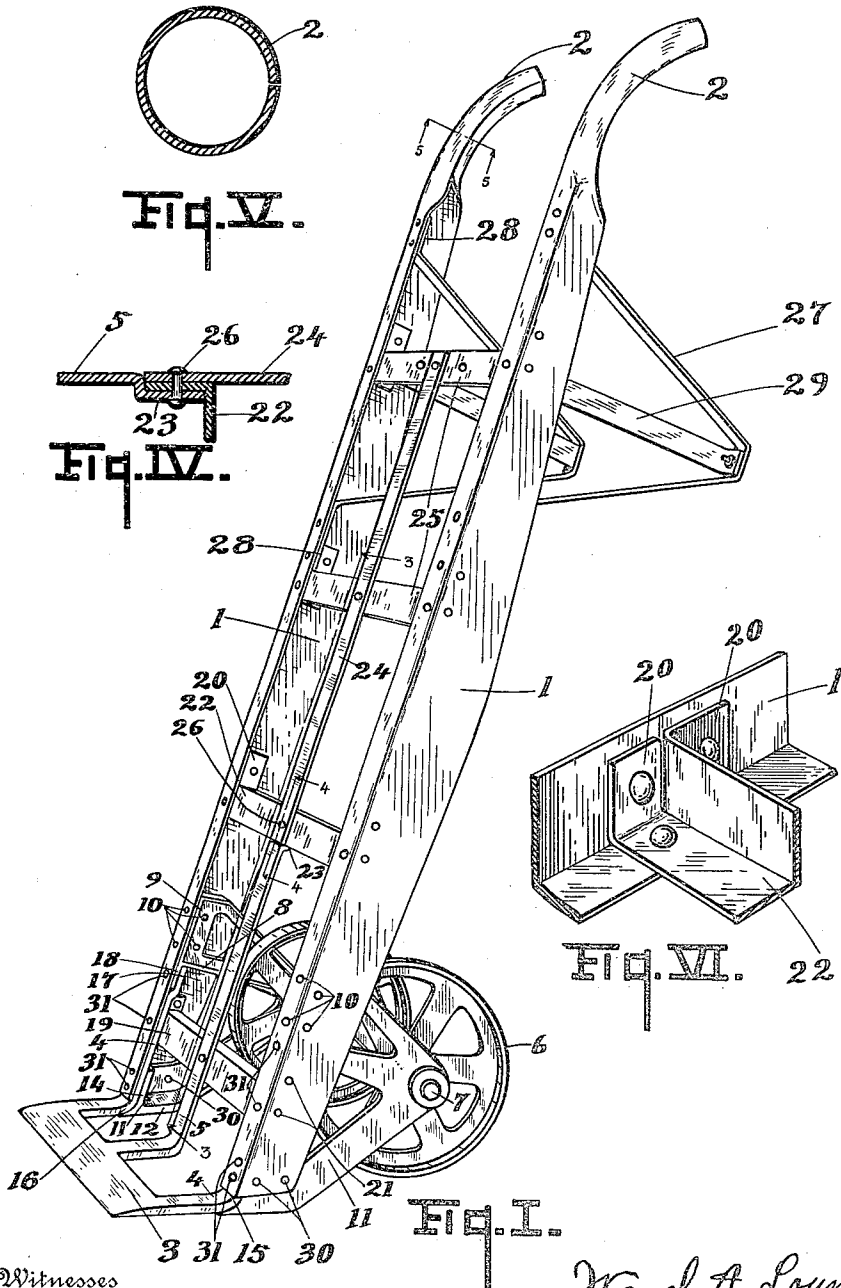
HAND TRUCK.

APPLICATION FILED JULY 10, 1912.

1,125,571.

Patented Jan. 19, 1915.

2 SHEETS-SHEET 1.



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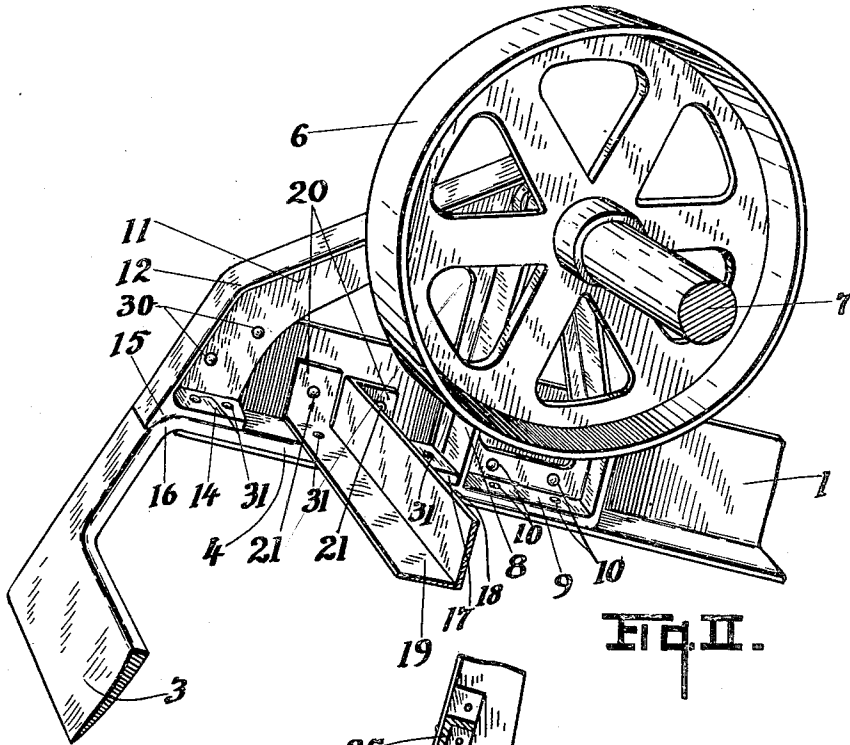


FIG. II.

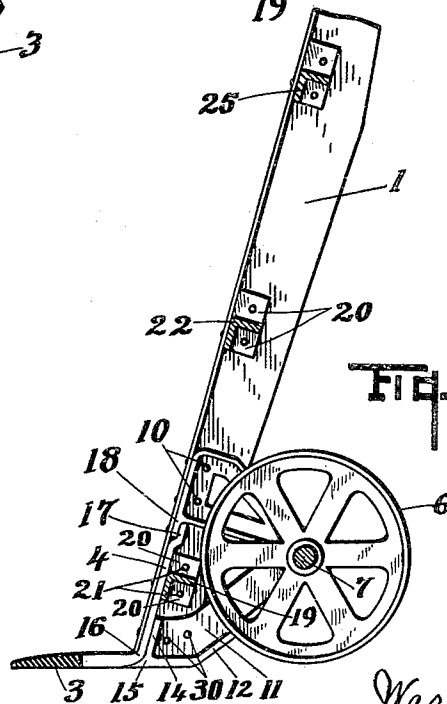


FIG. III.

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UNITED STATES PATENT OFFICE.

WARD A. LOUNSBERRY, OF KALAMAZOO, MICHIGAN.

HAND-TRUCK.

1,125,571.

Specification of Letters Patent.

Patented Jan. 19, 1915.

Application filed July 10, 1912. Serial No. 708,678.

To all whom it may concern:

Be it known that I, WARD A. LOUNSBERRY, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Hand-Trucks, of which the following is a specification.

This invention relates to improvements in hand-trucks.

The main objects of this invention are to provide an improved hand truck which is comparatively light although made entirely of metal, and one which is very strong, rigid and durable, and at the same time, comparatively economical to produce both in the matter of material and labor.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claim.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a perspective view of my improved hand truck. Fig. II is an inverted detail perspective showing the arrangement of the side bars, nose, wheel hangers and front cross bar. Fig. III is a detail longitudinal section taken on a line corresponding to line 3—3 of Fig. I. Fig. IV is an enlarged detail section taken on a line corresponding to line 4—4 of Fig. I, showing the connection for the intermediate foot arm 5 to the cross piece 22. Fig. V is a cross section taken on a line corresponding to line 5—5 of Fig. I, showing the form of the handle. Fig. VI is a detail inverted perspective showing one of the side bars and the connection of the cross piece 22 thereto.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the side bars 1 are formed of sheet metal bent into angle bars. Suitable angle irons may be used. The side bars 1 are arranged with their angles facing inwardly and downwardly. The

rear ends of the side bars are suitably conformed to form handles 2.

The nose 3 is provided with rearwardly projecting arms 4 and 5, the arms 4 being side arms, the arm 5 being an intermediate arm. The side arms 4 of the foot are arranged in the angles of the side bars.

The wheels 6 are mounted on the axle 7. The axle 7 is carried by hangers 8 having angled heads 9 at their upper ends, which are arranged in the angles of the side bars. These angled heads are secured by the rivets 10 to the vertical and horizontal legs of the side bars and constitute brace members therefor.

The hangers are provided with upwardly and forwardly projecting arms 11 having inturned flanges 12 on their forward edges. These arms project forwardly so that their forward edges are beyond the front ends of the side bars,—see Fig. I. The vertical legs or side bars are secured to the arms by the rivets 30 so that they are supported and braced thereby.

The hanger arms 11 are provided with inwardly projecting flange-like seats 14 at their upper end for the nose arms 4, the nose arms resting on and being supported by these seats. The forward ends of the seats are curved upwardly at 15 to embrace the angles 16 of the nose arms, the upwardly projecting portions being in effect the upper ends of the flanges 12. The rear ends of the arms 4 are downwardly offset at 17 to lap under the forwardly projecting lugs 18 on the hangers.

The forward cross piece 19 which is also preferably formed of angle iron is arranged below the nose arms to coact in supporting the same. The ends of the horizontal leg of the cross piece 19 are bent down while the ends of its vertical leg are bent rearwardly to provide attaching ears 20, 20, which are riveted to the vertical legs of the side bars.

Rivets 31 are arranged through the horizontal legs of the side bars, the nose arms 4 and the nose piece on the arms 11, the cross piece 19 and the lugs 18. The nose is thus supported so that the load is carried directly by the axle hangers. This permits the use of comparatively light side bars for the frame and comparatively light cross piece, which greatly reduces the weight of the truck and the material used.

The seats support the nose at the point

where it receives the most severe strain so that it is not likely to break at this point.

The parts are so arranged and united that one serves to brace and support the other, thus permitting the use of lighter material which is of great advantage in trucks of this kind formed of metal.

The intermediate nose arm 5 is secured at its rear end to the cross piece 22, the arm 5 being offset at 23 to receive the horizontal leg of the cross piece,—see Fig. IV.

The longitudinal frame piece 24 is arranged on the cross piece 22 and the cross pieces 25. The arm 5 is offset so that its upper side is in substantially the plane of the longitudinal frame piece 24.

The rivet 26 is arranged through the bar 24, cross piece 22, and the offset of the arm 5. The cross pieces 22 and 25 are secured to the side bars in the same manner as is described for the cross piece 19, they being provided with attaching ears as shown in Fig. VI.

The truck legs 27 are formed of V-shaped pieces, the arms being provided with attaching members 28 which are secured to the horizontal legs of the side bars. The leg braces 29 are riveted to the rear cross piece 25 and to the legs as clearly appears in the drawing.

My improved truck is very strong and

rigid and is capable of withstanding severe usage and heavy strains.

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

In a hand truck, the combination of wheels, an axle therefor, angle iron side bars disposed with their angles facing downwardly and inwardly, axle hangers having heads with forwardly projecting lugs thereon and upwardly and forwardly projecting arms with nose arm seats at their upper ends, and a nose having rearwardly projecting arms disposed on said seats and in the angles of said side bars with their rear ends lapping said forwardly projecting lugs on said hanger heads, said nose seats having upwardly projecting lips at their forward ends embracing and supporting the angles of said nose arms, the forward ends of the horizontal legs of the side bars being disposed in the angles of said nose arms, said parts being rigidly secured together substantially as and for the purpose specified.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

WARD A. LOUNSBERY. [L.S.]

Witnesses:

LUELLA GREENFIELD,
ANNA FOOTE.

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