(No Model.)

D. S. WING.

HAND TRUCK.

No. 310,485. Patented Jan. 6, 1885.

Fig. 1.

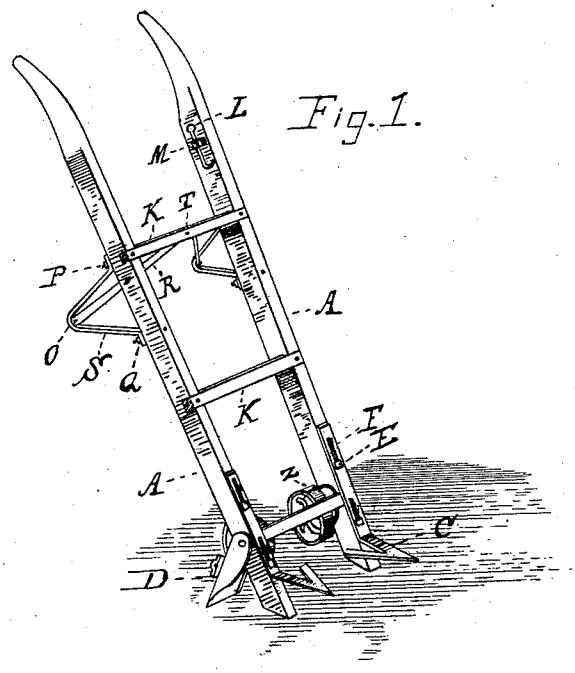


Fig. 2.

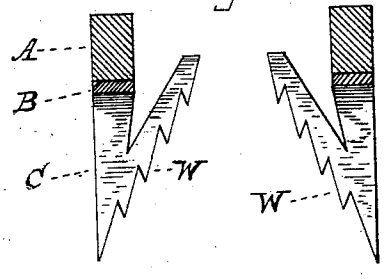


Fig. 4.

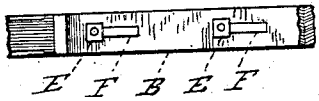


Fig. 3.

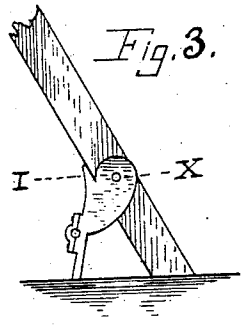
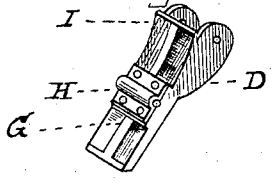


Fig. 5.



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HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 310,485, dated January 6, 1885.

Application filed March 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL S. WING, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Merchant-Trucks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

Figure 1 is a perspective view of my improved truck. Fig. 2 is a view, partly in section and partly in plan, of a modification of the shoe-piece. Fig. 3 is a side elevation of a portion of one of the truck-bars, showing the hinged standard in operative position. Fig. 4 is a plan detail view of the adjustable strap of the shoe-piece, and Fig. 5 is a rear perspective of the hinged standard, showing the journals of the truck-wheel axle.

My improved truck consists, primarily, of the side bars, A A, provided with the usual handles and the connecting cross-pieces K K. The ends of the latter are set in the side bars as shown, the upper surfaces of the two being flush with each other. Beneath each side bar is located a fixed wrought-iron standard, S, of V shape, and provided with top lugs, through which pass the bolts P and Q. The bolt P passes also through the end of the upper cross-piece K, serving the additional purpose of securing it to the side piece. Between the opposite fixed standards extends the strengthening connecting-strap R, also of wrought-iron, riveted to the standards at O and extending upwardly, being riveted once more at T about the middle of the cross-piece K'. A firm and secure bearing is thus secured for the inner end of the truck. At the lower extremities of the side bars, and upon their upper surfaces, are arranged the shoes or stirrups B B, terminating in reverse V-shaped projections C C. The pieces B B are slotted for the reception of bolts E E, and by loosening or tightening said bolts are capable of longitudinal adjustment within the limits of the slots F F. The slots and bolts are so arranged that when the stirrups or shoes are at their lowest position with reference to Fig. 1 they will be at the same level with the lower ends of the side bars, A A. When at their highest position they will be at a distance of some inches above the lower ends of the side bars. The V-shaped projections C C terminate in points, and along their inner edges may be either straight, as shown in Fig. 1, or may be provided with a series of projecting teeth, W, arranged at regular distances along said edges.

About midway of the length of the shoes B B are arranged the adjustable hinged standards D D, the specific construction of which is clearly shown in Fig. 5. They consist of the two cheek-pieces pivoted to the side bars at X, and united by a back piece having a strengthening-rib, G, and upper lip, I. These parts are all cast or made in a single piece, the back being suitably formed for attachment of a cap-piece, H, by means of which the axle is rigidly attached and bolted upon said standards, the wheels being loosely journaled upon the fixed axle. The axle thus acts as a brace between the opposite standards, and, uniting them firmly, enables them to turn upon their pivots at the same time. It prevents them from rocking sidewise, and in connection with the cheek-pieces guide them with great certainty and precision when folded under the side bars or moved out to the locked position.

The wheels may, as shown, be situated between the side bars, or the axle may be extended beyond the cheek-pieces and the wheels situated on the outside of the frame-work of the truck. When the wheels are journaled outside of the frame-work, upon the extended ends of the axle, the lower cross-piece of the main body is also extended out on both sides, forming a guide over the wheels and preventing the load from coming in contact with them. This cross-piece also serves as a guard when the wheels are journaled between the side bars. The back pieces of the standards are provided with lips I I, which form a flat even bearing for the side bars, A A when the standards are locked. The strengthening-ribs G prevent them from buckling.

The parts being disposed as described, the operation of my invention is as follows: When the truck is not in use, the back pieces of the pivoted standards D D lie parallel with and against the under edges of their respective side

bars, the wheels Z Z resting upon the ground or floor. When it is desired to load a box or package upon the truck, the handles are raised and the truck pushed forward until the points come in contact with the sides of the box or package. The operator then, either by hand or with a suitable hook, L, takes hold of the top of the box or package and tilts it quickly toward him upon the truck. When loaded, the lower end of the box rests upon the points and bears upon them sufficiently to prevent slipping during transportation to the desired place. In order to unload the truck when the place of deposit is reached, it is only necessary to elevate the handles until the center of gravity of the box is outside the truck, whereupon it disengages itself from the points and rests upon its end, leaving the truck perfectly free. It will thus be seen that I obviate the principal difficulty met with in the ordinary form of truck, wherein it is necessary in loading to first tilt the box forward in order to get the shoe under it, and in unloading to get the shoe out from under the box. When a barrel or cask is to be loaded, the truck is run up to it until the sides of the barrel, near its lower end, come in contact with the inner edges of the V-shaped shoe. The operator then tilts the barrel toward him, as above described, the truck being pulled forward with it. The lower end of the barrel then rests between the inner edges of the shoe, and is thus prevented from rolling off. The shoe, moreover, taking hold of the barrel at a distance of several inches above the chine, leaves a portion of the weight in front of the wheels, and thus adjusts the weight in a better manner upon the truck. The teeth or projections W assist in preventing the barrel from rolling, and adapt themselves to different sized ones. When trucking smooth or painted barrels, however, I use a shoe having no such teeth, as shown in Fig. 1, and employ the toothed shoe only when trucking cement, lime, or other rough barrels. If, in attempting to load a truck, it is found that the article is too heavy to be at once hauled upon it by the hook, as above described, the axle of the pivoted standards D D is pulled back until the standards occupy the position shown in Figs. 1 and 3. They act then as a fulcrum for the side bars, A A, which are thus converted into levers, and, while assisting in the elevation of the article, prevent the truck from running back while being loaded. For the convenient disposal of the hook L when not in use I arrange upon the inner side of one of the truck-bars a steel spring, M, having a recess in it in which the hook by slight pressure is placed, but still of such strength that it will not fall out by its own weight, even though the truck be turned upside down.

Having thus described my invention, what I claim is—

1. In a truck, the combination, with the main frame, of the shoes or stirrups terminating in upwardly and outwardly extending pointed projections, and having reverse branches converging toward each other, substantially as shown and described.

2. In a truck, the combination, with the main frame, of the shoes or stirrups terminating in upwardly and outwardly extending pointed projections, and having reverse branches converging toward each other, said branches being provided upon their inner edges with opposite teeth, substantially as shown and described.

3. In a truck, the combination, with the main frame, of the adjustable shoes or stirrups terminating in upwardly and outwardly extending pointed projections, substantially as described.

4. In a truck, the combination, with the side bars, of the pivoted standards secured by single bolts, and consisting of the back piece having a longitudinal strengthening rib and lip, I, the cheek-pieces, and the cap-piece by means of which the axle is attached thereto, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DANIEL S. WING.

Witnesses:
JOHN C. PENNIE,
EDWARD E. ELLIS.