

(No Model.)

D. Y. GRIEB.
HAND TRUCK.

No. 530,991.

Patented Dec. 18, 1894.

Fig. 1.

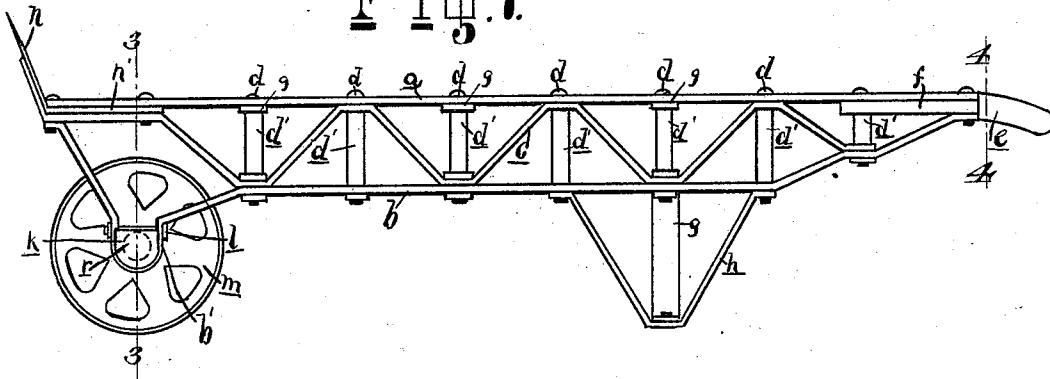


Fig. 2.

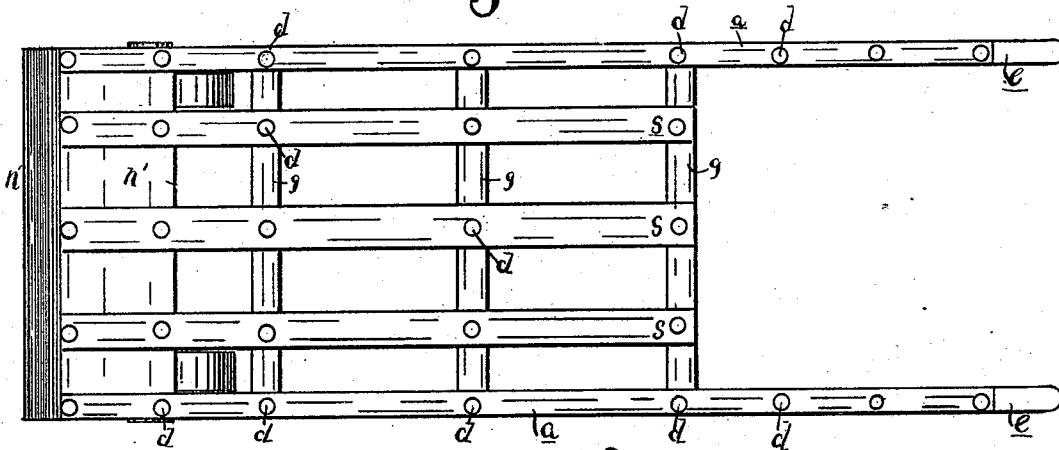


Fig. 3.

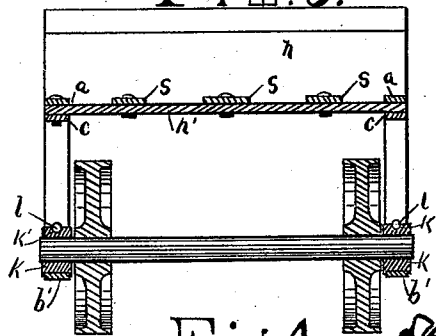


Fig. 4.



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DAVID YOUNG GRIEB, OF SUBURBA, TENNESSEE.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 530,991, dated December 18, 1894.

Application filed March 16, 1894. Serial No. 503,856. (No model.)

To all whom it may concern:

Be it known that I, DAVID YOUNG GRIEB, a citizen of the United States of America, residing at Suburba, in the county of Hamilton and State of Tennessee, have invented a new and useful Improvement in Hand-Trucks, of which the following is a specification.

The hand-trucks in use, may be briefly described as consisting of two wooden bars, braced together, and provided at one extremity with a nose or lip, the other extremities terminating in handles. On this frame, near the end carrying the nose, are mounted axle boxes in which the running gear is carried. Among the objections to this form are, liability of breaking the frame on account of unequal distribution of the load, loss of time in repairing if any part be injured, expense of supplying new pieces, and the difficulty in putting them in place without wholly dismantling the truck.

The object of my invention is to overcome these difficulties, and it consists in so constructing the truck that the load will be equally distributed, that if a part is injured it can be replaced without dismantling the structure, and in the combination and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation; Fig. 2, a top plan; Fig. 3, a vertical section on line 3—3 of Fig. 1; Fig. 4, a section on line 4—4 of Fig. 1.

The frame is constructed on the truss system. Each side of the frame consists of an upper bar, *a*, a lower bar, *b*, and an intermediate bar, *c*, bent in a series of V's.

The intermediate bar is secured alternately to the upper and lower bars except at points near the ends where the three are bolted together. Bolts, *d*, taking through ferrules, *d'*, connect the bars and brace-rods at the points of the V, the ferrule serving to maintain the proper distance between the upper and lower bars. The brace-iron being bent and secured in this manner the opposite sides of the V's brace in opposition so that a load applied to any part is equally distributed. The lower bars, *b*, are bent at *b'* to form hangers for the boxes, *k*, of the running gear and are extended upwardly beyond the end of the upper bars *a*

to afford supports for a nose iron, *n*, consisting of a plate of angular shape extending from side to side of the truck, one part *n'*, being secured between the upper bar, *a*, the brace-rod, *c*, and the lower bar, *b*, thus affording a brace between the sides of the truck as well as affording a rigid support for the nose. The handles preferably consist of a hollow hand piece, *e*, driven or shrunk on a bar, *f*, bolted between the upper bar, *a*, and the lower bar, *b*. In the form shown the bar, *f*, is rectangular and the hand pieces circular in cross section and the intervening spaces are filled with a plastic material *w*, thus making a practically solid handle.

The legs consist of braces, *g*, and V shaped angle irons, *h*. The boxes, *k*, are each provided with a groove *k'* and are held in position by a bolt, *l*, taking through the two sides of the hangers formed by the bend in the lower bar, *b*, and resting in the groove. By this construction the bolt, *l*, receives the pressure from the load and transmits it to the box, the pressure from the sides of the hanger being inward and upward against the box, while the bolt serves as a pivot and centering device thus permitting the box to adjust itself to the line of the axle.

The sides of the frame are connected by brace-irons, *g*, having the continuous V-shape as the intermediate bar, *c*, and these are connected by plates, *s*, extending lengthwise of the truck.

The parts may all be made from templets and any part may be replaced by orders at small cost. Each part is held in place by its own bolts and can be easily removed and replaced by an unskilled workman. The whole can be shipped in knock down form and the parts can be assembled by any person knowing how to use a wrench.

I claim as my invention—

1. A frame for a truck consisting of a plurality of upper and lower bars the bars of each pair being secured to each other at or near their ends; bends to the lower bars adapted to form hangers for the boxes; a brace-iron having a series of V-shaped bends, connecting the bars of each pair, and cross brace-irons connecting the pairs, substantially as and for the purpose specified.

2. A frame for a truck consisting of a plu-

ality of upper and lower bars; a V-shaped
brace iron connecting each pair of upper and
lower bars, bends in the lower bars adapted
to form hangers for the boxes; a transverse
5 groove in each of the boxes; bolts taking
through the hangers and resting in the
grooves, and brace-irons connecting the pairs,
substantially as and for the purpose specified
3. The combination in a truck of upper
10 bars *a*, and lower bars *b* having bends *b'* brace
irons, *c*, between the upper and lower bars,
cross brace irons, *g*, connecting the sides of
the frame, bolts *d* and ferrules *d'*, connect-

ing and bracing the bars and brace irons;
boxes *k*, having groove *k'*, and bolts *l* con- 15
necting the sides of bend *b'* and resting in
the groove *k'*, substantially as and for the
purpose specified.

4. The combination in a truck of the bars
a and *b*, the brace irons *c* and *g*, the handle 20
e and the nose iron *n* combined and arranged
substantially as and for the purpose specified.

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Witnesses:

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