

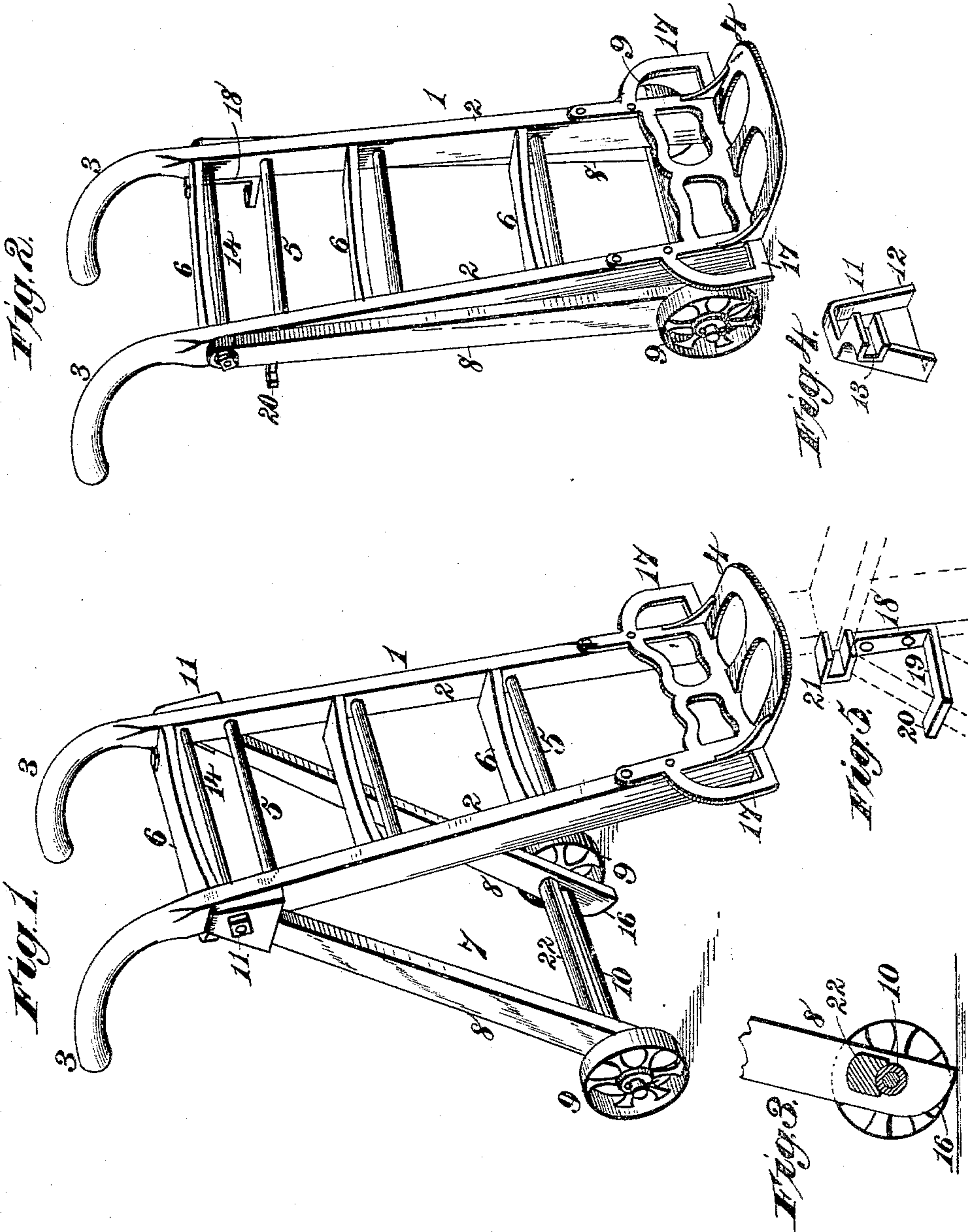
(No Model.)

J. S. NELSON.

HAND TRUCK.

No. 300,496

Patented June 17, 1884.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES S. NELSON, OF SPRINGFIELD, OHIO.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 300,496, dated June 17, 1884.

Application filed March 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. NELSON, a citizen of the United States, residing at Springfield, Clark county, and State of Ohio, have
5 invented new and useful Improvements in Hand-Trucks, of which the following is a specification.

My invention consists in the combination, with a baggage-truck, of devices by which it
10 may be easily and quickly converted into a step-ladder, the attachments whereby the double function is effected being so constructed and combined with the truck that they shall not impair its usefulness nor add materially to
15 its cost.

It also consists in the combination, with the truck-frame, of fenders, whereby the wheels are so far covered that luggage carried upon the truck will not come in contact therewith, and
20 which serve to give a broad base of support to the structure when the same is used as a step-ladder.

My invention finally consists in the peculiar construction of the devices for locking the
25 supporting-frame in place, and in the several features of mechanical construction and combinations of parts hereinafter fully set forth, and definitely pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view showing my invention in position for use as a step-ladder. Fig. 2 is a perspective view showing the supporting-frame folded upon the truck-frame. Fig. 3 is a side elevation of the end of the supporting-bar, showing the manner of mounting the wheels.
35 Fig. 4 is a detail perspective of a portion of the side rail of the truck-frame, showing the construction of the stop by which the spread of the supporting-legs is limited. Fig. 5 is a
40 perspective showing a modification of the device illustrated in Fig. 4.

In the drawings, the reference-number 1 indicates the truck-frame, having side bars, 2 2, terminating in handles 3 3. Upon the forward
45 end of this frame is mounted the shovel 4, which is of the usual construction. The side bars, 2, are in the trucks in common use connected by rounds 5, and these may or may not be employed in my invention; but in either
50 case steps 6 are mounted upon said bars, which

may not only serve to connect and brace the frame, but also serve the further purpose of steps. Near the handle end of the truck-frame I pivot a supporting-frame, 7, consisting of legs or bars 8, having substantial parallelism
55 with the side bars of the truck-frame 1. Upon the lower end of these bars I mount the truck-wheels 9, their journals projecting outside the bars 8, while the axle is a single shaft running transversely across the lower end of the supporting-frame 7 and concealed within a sleeve,
60 10. The construction of the parts is such that when the frame 7 is folded upon the truck-frame the bars 8 will lie outside and adjacent to the side bars of the truck, bringing the
65 wheels beneath its forward end, in the manner shown in Fig. 2. Upon the side bars of the truck, and covering the pivoted end of the supporting-frame 7, I place a metallic hood, 11. (Shown in detail in Fig. 4.) This hood con-
70 sists of a Λ -shaped plate having its converging sides flanged inwardly, as shown at 12, and provided with a grooved bracket, 13, arranged transversely. The pivot-bolt 14 of the legs 8 passes through the upper part of this head, and
75 it is so fastened to the truck-frame that it is rigid thereon. One of the flanged sides 12 is flush with the side rail of the truck; and it will be seen that as the supporting-frame 7 is opened its spread will be limited by the other
80 diverging flange. This affords a stop for the leg-frame. The bracket 13 projects inside the side bars of the truck-frame, and its groove receives the end of the upper step mounted upon said rails, giving additional support to it, and
85 at the same time supporting the hood against the leverage of the extended leg-frame.

By reference to Fig. 3 it will be seen that the lower ends of the legs 8 are rounded at the point 16, and the wheel-journal is located so
90 far from the extremity that when in a vertical or nearly vertical position the wheel is raised out of contact. This gives the leg a firm bearing and avoids the danger and inconvenience which might result from having a mere roll-
95 ing support. Upon the side bars of the truck, near their forward ends, I mount fenders 17, which project over the wheels, give a more extended support to luggage carried by the truck, and prevent the wheels from coming
100

in contact therewith, whereby their movement would be impeded and the baggage marred and injured. These fenders also serve the purpose of giving a broad base of support to the truck-frame when the same is used as a step-ladder, 5 as shown in Fig. 1, whereby swaying or side movement of any kind is effectually prevented.

Instead of using the hood 11, I may employ a bar or plate, 18, which is bolted to the 10 rear edge of the side bar, 2, of the truck-frame, and having an arm, 19, bent rearwardly and at right angles, or thereabout, with the bar or plate 18. At the end of this arm is an arm or stop, 20, which projects laterally into the path 15 of the supporting-bars 8 as they turn upon their pivot-bearing 14, and forms a bearing which limits the outward movement of the legs 8. At its upper end the plate 18 is provided with a groove, 21, similar to that al- 20 ready described in connection with reference to the hood 11, and which is adapted to receive the end of the step and give it support, as shown in dotted lines in Fig. 5. Between the bars 8 of the supporting-frame I place a 25 strong transverse brace, 22, tenoned into the bars just over the sleeve 10. This brace supports the truck-frame when the parts are folded together, as shown in Fig. 2.

It should be noted, also, that the stops 6, al- 30 though shown as being mounted upon the truck-frame 1, may be placed upon the supporting-frame 7, thus reversing the relative functions of these parts.

By this invention I provide a light, convenient, strong, and comparatively cheap structure, which is capable of the double use for 35 which it is intended.

Having thus described my invention, what I claim is—

40 1. The combination, with a truck-frame, of legs or supporting-bars pivoted to the truck-frame near the handles, and having the wheels journaled near their opposite ends, and a stop for limiting the spread of the supporting-bars, 45 substantially as described.

2. The combination, with a truck-frame, of legs or supporting-bars pivoted to the truck-frame near the handles, wheels journaled near the ends of said bars, the truck-frame being provided with steps, and the supporting-bars 50 connected by rounds, substantially as described.

3. The combination, with a truck, of a pivoted supporting-frame, in the free end of which the truck-wheels are journaled, whereby the 55 device may be used either as a truck or as a step-ladder, substantially as described.

4. The combination, with the truck-frame, of a stop for limiting the movement of the pivoted supporting-frame, said stop being pro- 60 vided with a groove or recess to receive and support the end of the step, substantially as described.

5. The combination, with a truck-frame, of a pivoted supporting-frame carrying the truck- 65 wheels and fenders extending over said wheels, substantially as described.

6. The combination, with a truck-frame, of a pivoted supporting-frame having its free ends rounded or curved at an angle, and truck- 70 wheels journaled in said supporting-frame, the distance between their axis and the end of the support being greater than the radius of the wheel, whereby placing the end of the bar upon the floor will remove the wheels from 75 contact, substantially as described.

7. The combination, in a hand baggage-truck, of a supporting-frame and a wheeled frame, the two frames pivoted together at or near one end, and one of the frames provided with steps 80 to produce a combined baggage-truck and step-ladder, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES S. NELSON.

Witnesses:

JAMES L. NORRIS,
J. A. RUTHERFORD.