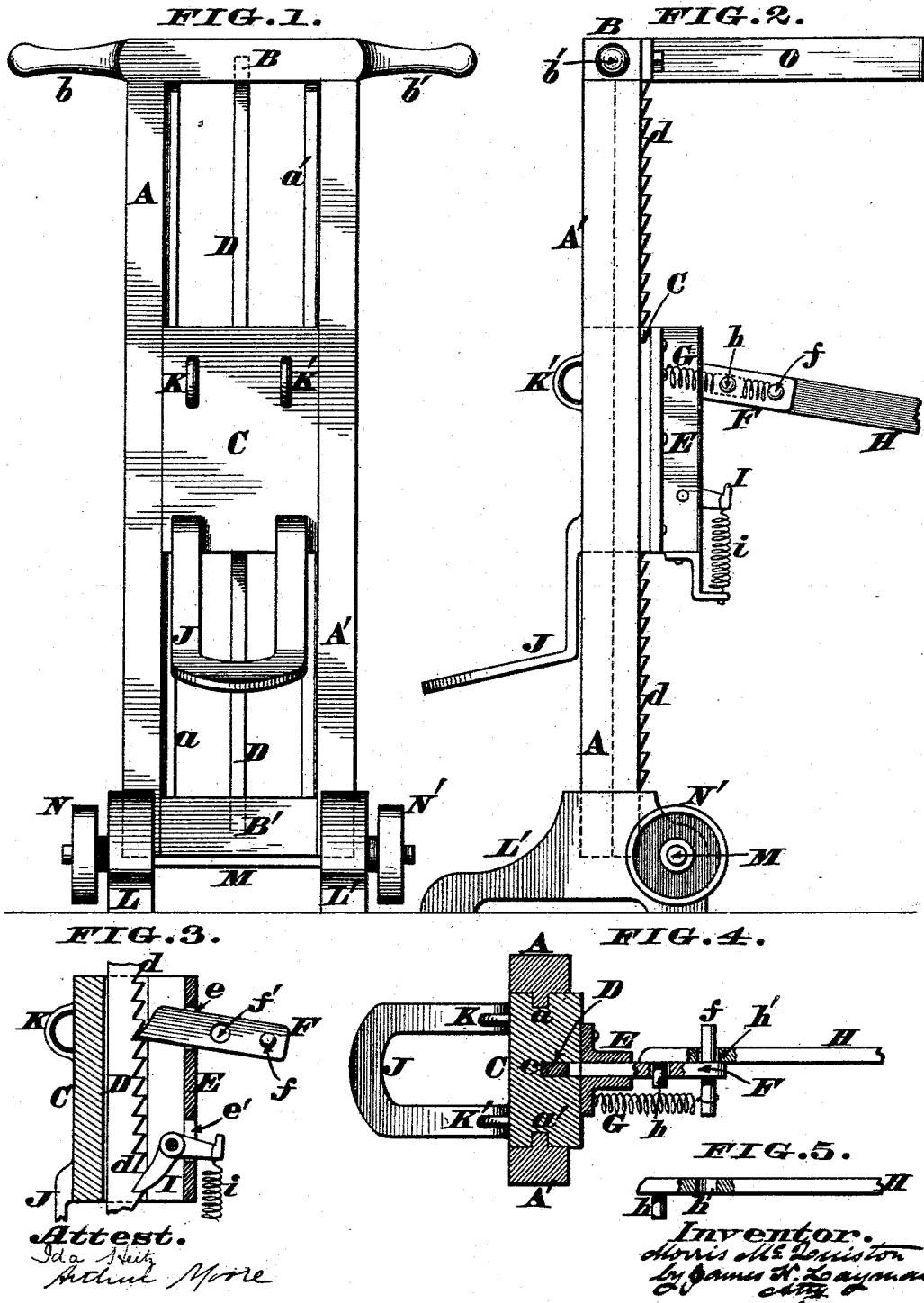


(No Model.)

M. McQUISTON.
HAND TRUCK.

No. 533,605.

Patented Feb. 5, 1895.



UNITED STATES PATENT OFFICE.

MORRIS McQUISTON, OF GREENSBURG, INDIANA.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 533,605, dated February 5, 1895.

Application filed October 29, 1894. Serial No. 527,165. (No model.)

To all whom it may concern:

Be it known that I, MORRIS McQUISTON, a citizen of the United States, residing at Greensburg, in the county of Decatur and State of Indiana, have invented certain new and useful Improvements in Hand-Trucks; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

This invention relates to those hand-trucks which are capable of being turned up to an erect position and then used for elevating freight, baggage and other heavy articles a limited distance, and the principal feature of my improvement comprises a novel construction that enables a ready application of great power to the lifting devices, or "jack," and without rendering it too heavy and complicated, the details of said construction being hereinafter more fully described.

In the annexed drawings—Figure 1 is a front elevation of my hand-truck in an erect position, to be used as a lifting-jack. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical section through the slide of the jack. Fig. 4 is a horizontal section of said slide. Fig. 5 is a section of one end of the operating lever detached from the jack.

The main frame of the truck proper consists of a pair of parallel side-pieces A, A', united by end pieces B, B' the piece B being extended at *b, b'*, to serve as handles, and the sides A, A', being provided with guides *a, a'*, that confine a slide C to a proper path within said frame. This slide has a central, longitudinal groove *c*, represented in Fig. 4, which groove admits a bar D, having ratchet teeth *d*, on its rear edge, the ends of said bar being secured to the cross pieces B, B', in any suitable manner. Attached to the back of this slide is a guide or housing E, having an upper slot *e*, and a lower one *e'*, the upper slot being furnished with a pawl F. This pawl is not coupled to the housing, but is loosely fitted therein, so as to move back and forth with perfect freedom, and is normally held in engagement with the ratchet bar by a spring G, one end of the latter being connected to a pin *f* that passes transversely through the pawl near its exposed end. Sit-

uated between this pin, and the housing E, is a hole *f'*, in said pawl, to admit a pin *h*, that projects laterally from an operating lever H, which lever may be five or six feet long, so as to afford a very great lifting power on the jack. *h'* is a hole in this lever, to admit pawl-pin *f*.

Pivoted in the housing E is a click or other automatic stop I, of the shape represented, one end of said click being carried through the lower slot *e'*, and having a spring *i* attached to it, for the purpose of keeping the effective end of said click in contact with the ratchet bar D.

Projecting from the front of slide C, is a shoe J of the proper size and shape to support a barrel or box or other bulky package, and, in addition to this shoe, said slide has a pair of staples K, K', to which the ends of a chain or rope may be temporarily coupled, to hold such articles as might be liable to roll off said shoe. The side pieces A, A' are secured to stout metallic-bearings or feet L, L', having an axle M fitted to them, the axle being provided with a pair of wheels N, N'. Furthermore, these feet are so shaped as to be the sole support for the truck when it is in a vertical position, at which time the wheels clear the ground, as more plainly seen in Fig. 2.

O represents a leg, or a pair of legs that prevent the devices F, I, striking the ground when the truck is in its normal or almost horizontal position, the lever H being then disconnected from the pawl F. Consequently, the truck can now be used as readily as any other vehicle of a similar character, but when a barrel or other heavy box or package is to be raised to the level of a wagon-bed or car floor, the truck is stood erect, as seen in Figs. 1 and 2, and the slide being lowered, the barrel is rolled upon the shoe J, and then the lever H is coupled to the pawl F, in the manner shown in Fig. 4. The lever is now worked up and down, in the same way as a pump-handle, and at every up stroke, the slide is forced up a limited distance by the pawl F coming in contact with the upper end of slot *e*; but before a down stroke is commenced, the lever must be pulled back a sufficient distance to disengage the pawl from the ratchet bar, and then another up stroke is made, the

spring G being first permitted to advance said pawl, so as to re-engage it with said ratchet. During these movements of the lever, there can be no accidental descent of the slide C, because the click I is carried up with it and automatically engages with the appropriate tooth of the ratchet bar. As soon, however, as the load is deposited within the wagon or car, the pawl F is again drawn back, the outer end of click I swung up, and the slide is then free to descend between the guides *a*, *a'*, until the shoe J strikes the ground.

From the above description it is evident the long lever H affords a great purchase on the ratchet bar, and as said lever is used only for hoisting purposes, it adds nothing to the weight of the truck proper. Therefore, my truck is a decided improvement over those which employ pinions, gear-wheels, windlasses and cranks to lift with, as such appliances are not only complicated and expensive, but they constitute a dead weight that must be supported, to a great extent, by the person who wheels the vehicle from place to place.

I claim as my invention—

1. A combined hand-truck and lifting-jack

including a wheel-supported frame; a ratchet-bar secured therein; a slide that traverses said frame and bar; a pawl loosely fitted within said slide, so as to be moved back and forth; a detachable lever, capable of being readily coupled to said pawl; and a stop for preventing accidental descent of said slide, as herein described.

2. A combined hand-truck and lifting-jack including the frame *A a A' a' B B*, mounted upon wheels *N, N'*; a ratchet bar *D*, secured in said frame; a grooved slide *C*, traversing said frame and bar; a pawl *F*, loosely fitted within said slide, so as to move back and forth, and provided with a pin *f*, hole *f'*, and spring *G*; a detachable lever *H*, provided with a pin *h*, hole *h'*, and capable of being coupled to said pawl, in the manner described; and an automatic click *I*, that engages with said bar, for the purpose stated.

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

MORRIS McQUISTON.

Witnesses:

THOMAS E. WILSON,
H. N. GAUNT.