

No. 759,459.

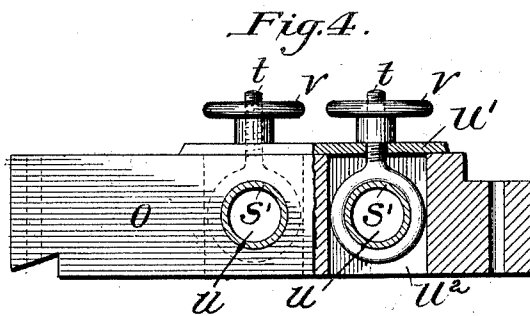
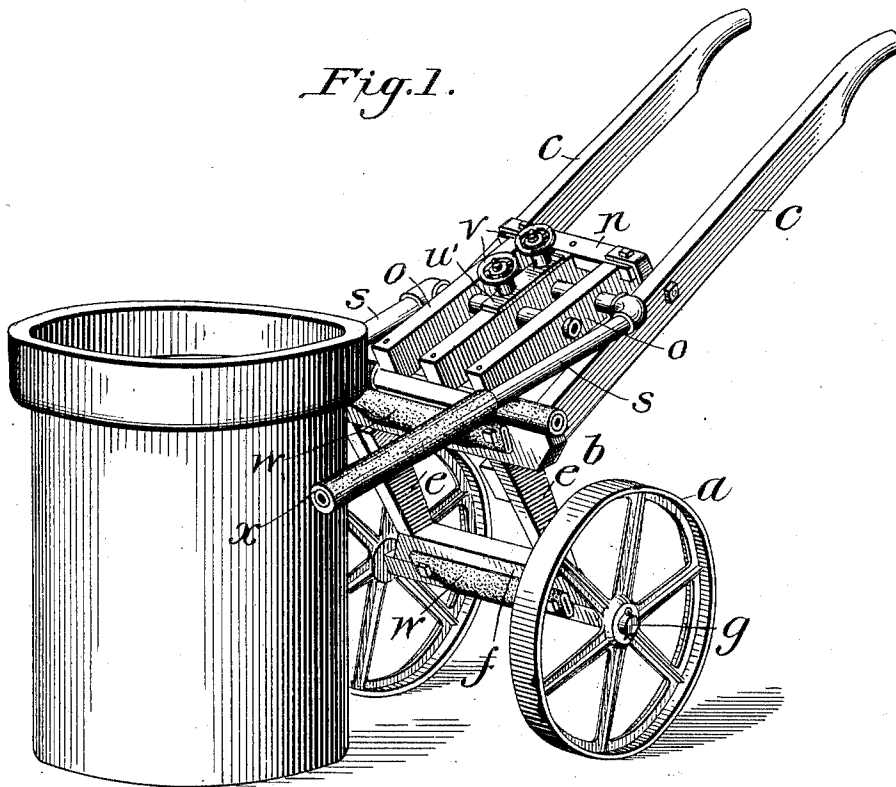
PATENTED MAY 10, 1904.

J. E. MINTER.
HAND TRUCK.

APPLICATION FILED AUG. 12, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

Engene Paul Banger

Inventor:
John E. Minter

by William F. Hall
His Atty.

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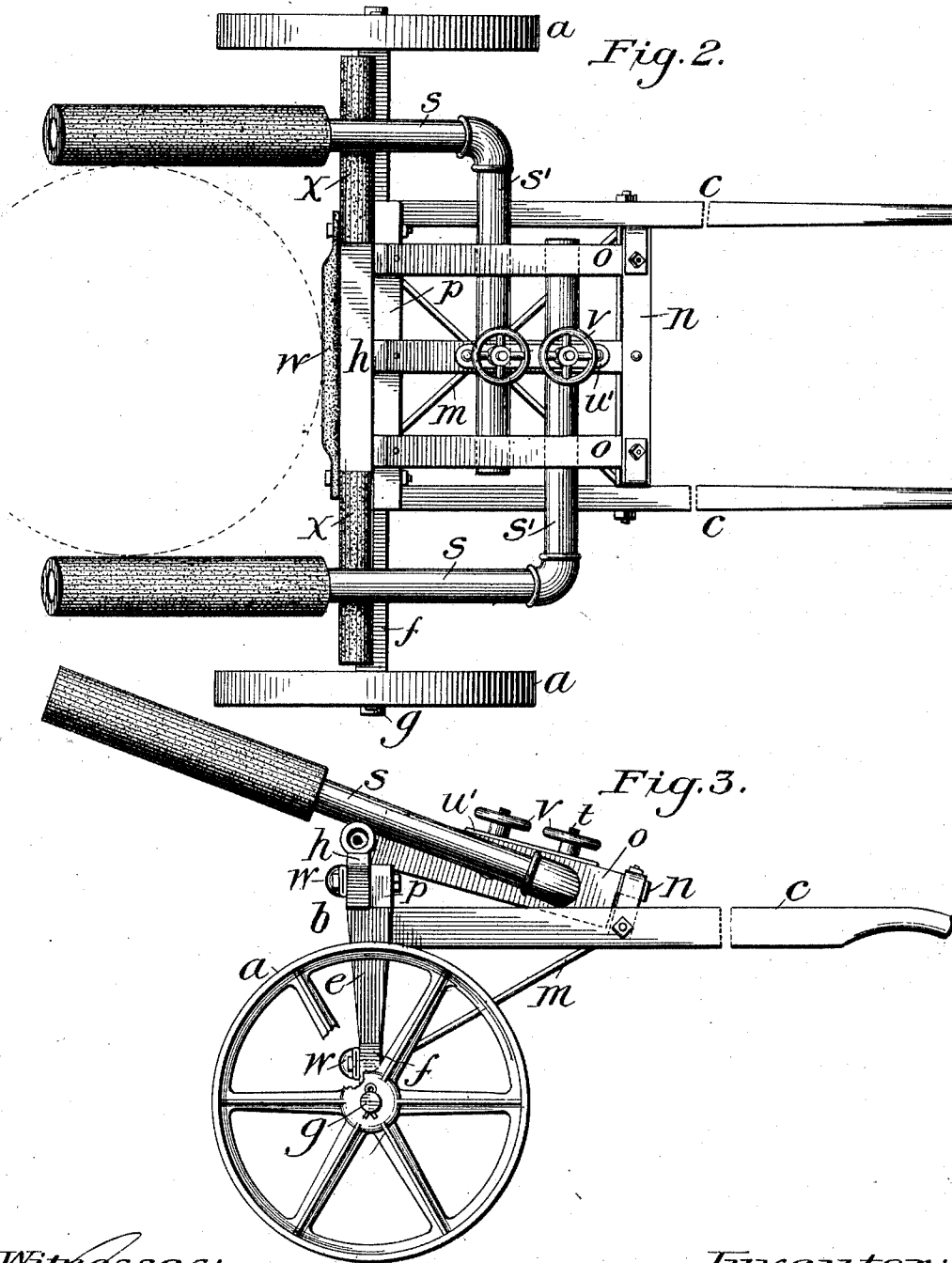
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Witnesses:

Eugene Paul Berger

Inventor:
John E Minter

By *William F. Hall*
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UNITED STATES PATENT OFFICE.

JOHN EASTER MINTER, OF MACON, GEORGIA.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 759,459, dated May 10, 1904.

Application filed August 12, 1903. Serial No. 169,165. (No model.)

To all whom it may concern:

Be it known that I, JOHN EASTER MINTER, a citizen of the United States, and a resident of Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Hand-Trucks, of which the following is a specification.

My invention relates to hand-trucks, primarily designed for transporting sewer-pipe or for moving the same from place to place, particularly during the course of the manufacture thereof.

A primary object of the invention is to provide a simple, light, inexpensive, and highly-efficient truck having means for engaging and lifting a pipe, for supporting the latter during the transportation thereof without the liability of breaking, marring, or disfiguring the ware, and for resetting the same when the destination is reached with rapidity.

Other objects of the invention will appear and the many advantages of the same be appreciated when the invention is more fully disclosed.

To accomplish the ends sought, the invention includes the combination and arrangement of component parts and the details of construction to be hereinafter described, and particularly pointed out in the claims.

While the invention is susceptible of various modifications, the accompanying drawings illustrate and I shall hereinafter describe in connection therewith what is now deemed to be the preferred embodiment of the same.

In the drawings, Figure 1 shows the truck in perspective. Fig. 2 is a plan view thereof. Fig. 3 is a side elevation of the same, and Figs. 4 and 5 are detail views of the clamping means for the pipe-supporting arms.

The improved truck includes generally a pair of supporting-wheels, a frame supported therefrom, and a pair of adjustable supporting-arms having engaging portions projecting in advance of said frame, and other portions guided and held in adjusted positions in the latter.

The supporting-wheels are designated in the accompanying drawings by the letter *a*, and the main frame supported therefrom by the letter *b*. The latter includes the side

beams *c*, suitably shaped at their rear ends to provide handles and connected at their front ends to the upper ends of vertical standards *e*, which latter are fixed at their lower ends to a cross-bar *f*, secured to the axle *g* of the wheels *a*. This frame also includes a cross-head *h*, arranged parallel to the axle *g* and located above the ends of the standards *e* and front ends of the beams *c*. The frame is braced by crossing-bars *m*, fixed at their front ends in the bar *f* and at their opposite ends in the side beam *c*, intermediate of the lengths of the latter. Between said beams *c* at this point a cross-beam *n* is arranged, to which is secured the rear ends of three bars *o*, arranged parallel to the beam *c*, but extending at an acute angle or obliquely in relation to the transverse plane of the same, the front ends of said bars *o* resting upon and being secured to a cross-bar *p*, suitably secured to the rear face of a cross-head *h* and constituting what might be termed a "supplemental" frame.

The supporting-arms *s* for the pipe are located one on each side of this supplemental frame and are held at their rear ends therein, while the pipe-engaging portions thereof project in advance of the cross-head *h*.

In order that the engaging portions of the arms may be adjusted toward and from each other to accommodate pipe of varying diameters, the arms are preferably shiftable bodily transversely of the supplemental frame, this action being secured by adjustably mounting their rear ends in said frame. While the connections between the arms and the frame may be secured in a variety of ways, the accompanying drawings illustrate a representative form of the same. In this exemplification the rear end of each arm *s* has a right-angularly-extending portion *s'*, which projects through transverse guiding-openings in the bars *o* and is engaged by a clamping member associated with each set of the latter.

The set of guiding-openings in the bars *o* for one of the arms is arranged slightly in advance of the set of guiding-openings for the other arm, and each set comprises three openings, one in each bar, which are arranged in alinement with one another, and with each set a clamping device *t* is associated. In the ex-

emulation of my invention (shown in the accompanying drawings) the devices *t* are associated with the opening *u* of the intermediate bar *o*, and each of the former includes a ring 5 having a threaded radially-projecting stem surmounted by an adjustable hand-nut *v*. Each ring is guided in a recess or slot *u*², extending through the bar *o*, which intersects the transverse opening *u*, pertaining to said 10 ring, and the upper side of the intermediate bar *o*, in which the openings *u* and slots *u*² are located, is provided with a wear-plate *u'*, having openings through the same to accommodate the stems of the rings. The nuts threaded 15 upon said stems find bearings upon the upper surface of said wear-plate, so that as said nuts are screwed home the rings will be drawn up to cross the transverse openings *u* pertaining to the same, and thus clamp the ends *s'* of the 20 arms *s*. The engaging end of each arm *s* is preferably provided with a sleeve of soft cushioning material, while the front of the cross-head *h* and the corresponding portions of the bar *f* are provided with cushioning-strips *w*. The arms *s*, held at their rear ends 25 in the bars *o*, are supported intermediate of their lengths upon the upper face of the cross-head *h*, and to avoid undue jarring of said arms suitable cushioning-strips *x* are interposed between the bearing portion of the same 30 and the cross-head, said strips being preferably secured to the upper side of the latter.

In using the truck the arms are adjusted in the supplemental frame to separate the engaging 35 surfaces thereof a distance substantially equal to the diameter of the exterior of the body of the pipe to be transported and when so adjusted are clamped in place, as premised. The truck is then slightly tilted by means of 40 the handles and shoved toward the pipe until the cushion of the cross-head *h* strikes against the side thereof. The handles are then depressed, which will tilt the truck and raise the arms *s* into engagement with the under 45 side of the collar of the pipe, and a continued tilting movement of the truck will lift the pipe clear of the ground, so that the same may be carried about. If the handles of the truck are sufficiently depressed, the pipe will 50 swing upon the arms *s* until the lower part of the body portion thereof will rest against the cushion-strip on the bar *f*, and as the upper part of the body portion rests against the strip on the cross-head and the pipe is held 55 centrally at each side upon the arms *s* a firm support is given the same, which prevents the ware being marred in any way in carrying the same from place to place. By carrying the pipes in this manner it is not necessary to lift 60 the pipe-boards, and not only is the wear thereon relieved, but fewer of the same are necessary.

The construction and operation of my invention will be readily understood upon reference 65 to the foregoing description and ac-

companied drawings, and it will be appreciated that the parts and combinations recited may be varied within a wide range without departing from the spirit and scope thereof.

Having thus described my invention, what 70 is claimed as new, and desired to be secured by Letters Patent, is—

1. In a truck for carrying sewer-pipe and in combination, a truck-frame, supporting-wheels carried thereby, and non-pivotal supporting-arms adjustable transversely of said 75 frame independently of said wheels, said arms being held at their rear ends in said frame and having engaging portions projecting in advance thereof, substantially as described. 80

2. In a truck for carrying sewer-pipe and in combination, a truck-frame, supporting-wheels carried thereby, and a pair of arms bodily adjustable transversely of the frame 85 independently of the wheels, said arms having forwardly-projecting pipe-engaging portions and angularly-extending portions guided in the frame, substantially as described.

3. In a truck for transporting sewer-pipe and in combination, a truck-frame, supporting-wheels carried thereby, a pair of arms adjustable bodily transversely of the frame inde- 90 pendently of the wheels, said arms having forwardly-projecting pipe-engaging portions and angularly-extending portions guided in said 95 frame, and means for clamping the arms in adjusted positions, substantially as described.

4. In a truck for transporting pipe and in combination, a frame, supporting-wheels carried thereby, a pair of arms bodily adjustable 100 transversely of the frame independently of the wheels, said arms having forwardly-projecting pipe-engaging portions and angularly-extending portions held in said frame, and means en- 105 gaging the angularly-extending portions for clamping the arms in adjusted positions, substantially as described.

5. In a truck, and in combination, supporting-wheels, a main frame, a supplemental frame having guide-openings therein, and a 110 pair of supporting-arms adjustable relative to the main and supplemental frame and having angularly-extending ends guided in said openings, substantially as described.

6. In a truck and in combination, supporting-wheels, a frame having horizontally-ar- 115 ranged guide-openings therein, a cross-head, and a pair of arms bodily adjustable having their rear portions held in said openings inter- 120 mediately their intermediate portions supported on said head, and having pipe-engaging portions projecting in advance of the latter.

7. In a truck and in combination, supporting-wheels, a frame having horizontally-dis- 125 posed guide-openings therein, a cross-head, a pair of arms bodily adjustable having their rear portions held in said openings, their inter- 130 mediate portions supported on said head, and having pipe-engaging portions projecting in advance of said head, cushioning-sleeves fitted

to said pipe-engaging portions, and cushioning-strips secured to the front of said head and interposed between the latter and said arms, substantially as described.

- 5 8. In a truck and in combination, a frame having horizontally-arranged guide-openings therein, supporting-wheels for said frame carried by the latter, a lower cross-bar secured to the axle of the wheels, a cross-head, a pair
10 of arms bodily adjustable having their rear ends held in the openings in said frame their intermediate portions supported on said head, and having pipe-engaging portions projecting in advance of the latter, cushioning-strips se-

cured to said head and lower cross-bar, and 15 interposed between the head and arms, and cushioning-sleeves secured to the forwardly-projecting portion of the latter, substantially as described.

In testimony whereof I have hereunto signed 20 my name, in the presence of two attesting witnesses, at Macon, in the county of Bibb and State of Georgia, this 8th day of August, 1903.

JOHN EASTER MINTER.

Witnesses:

C. P. BANNON,
C. W. LEONARD.