

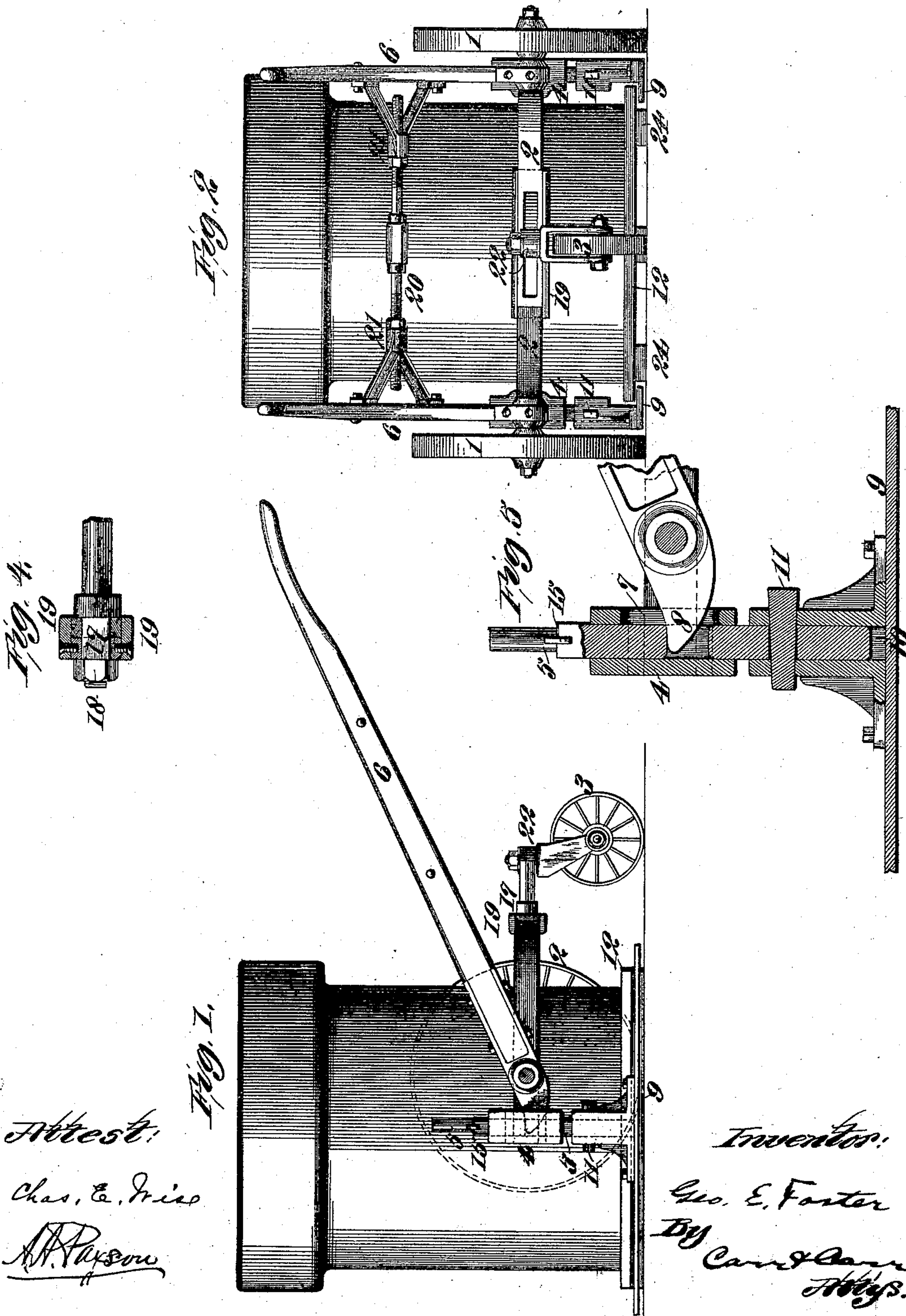
(No Model.)

2 Sheets—Sheet 1.

G. E. FOSTER.
SEWER PIPE TRUCK.

No. 547,343.

Patented Oct. 1, 1895.



Attest:
Chas. E. Price
A. Payson

Inventor:
Geo. E. Foster
By *Carroll & Co.*
Hwy.

(No Model.)

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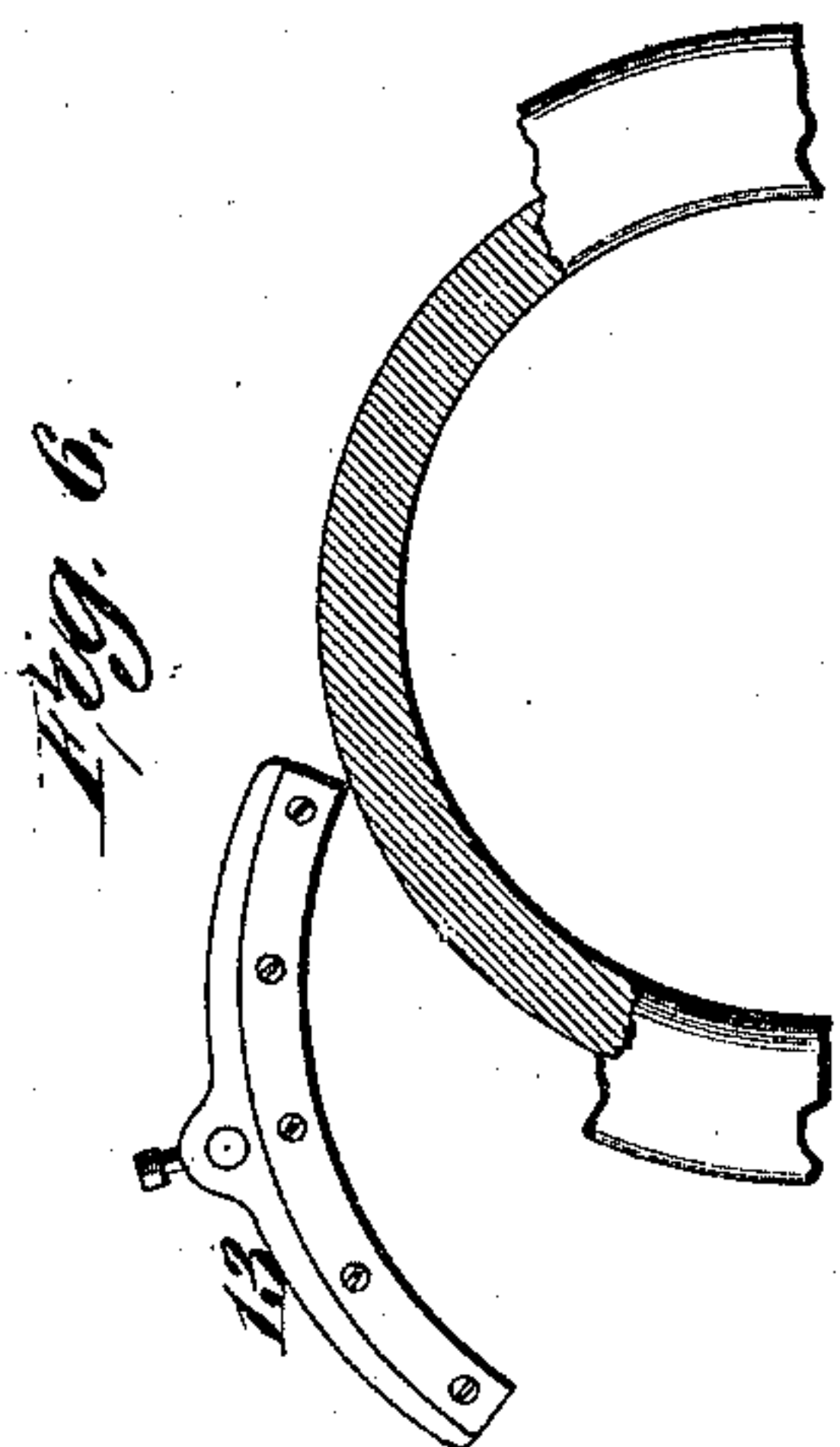
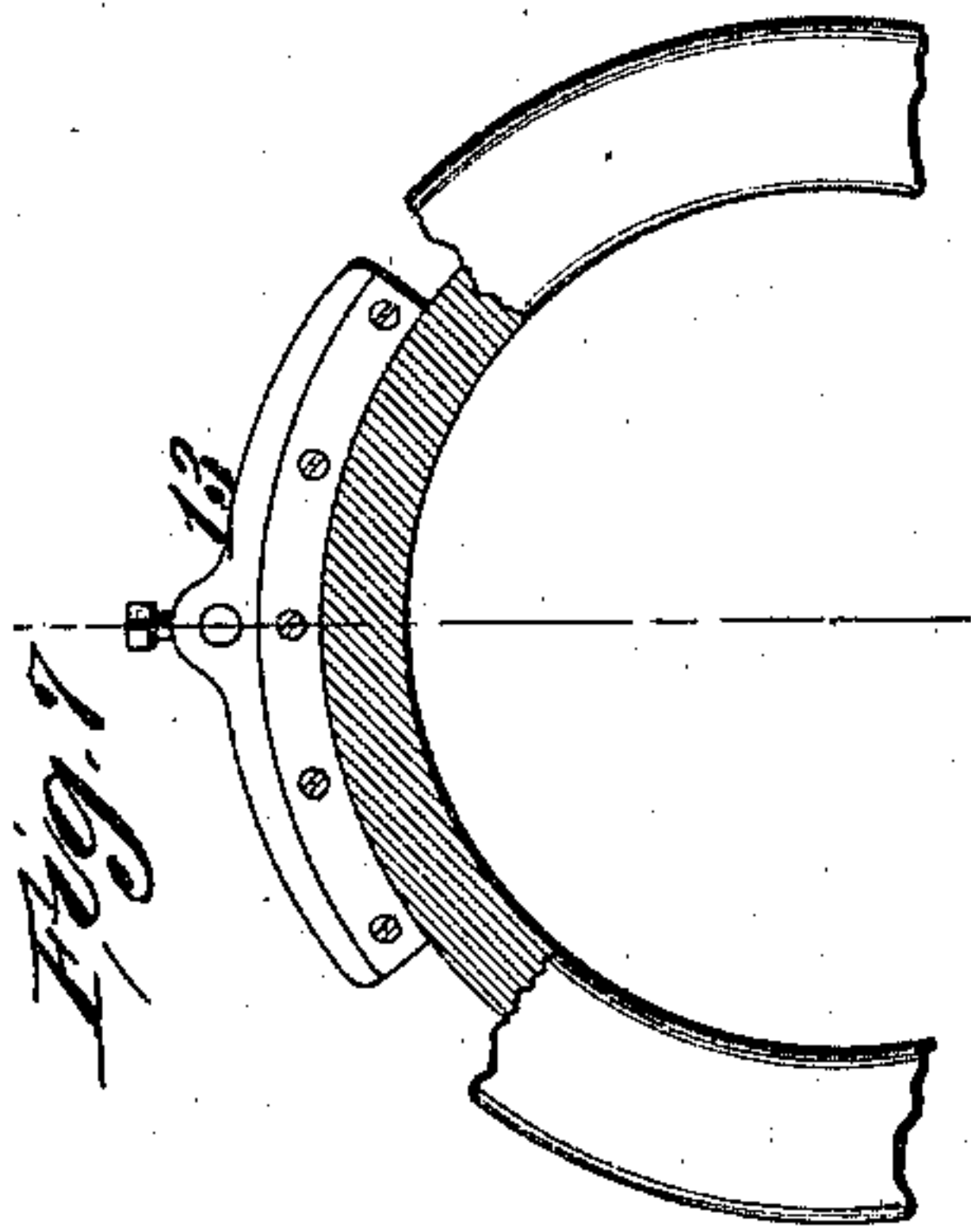


Fig. 8.

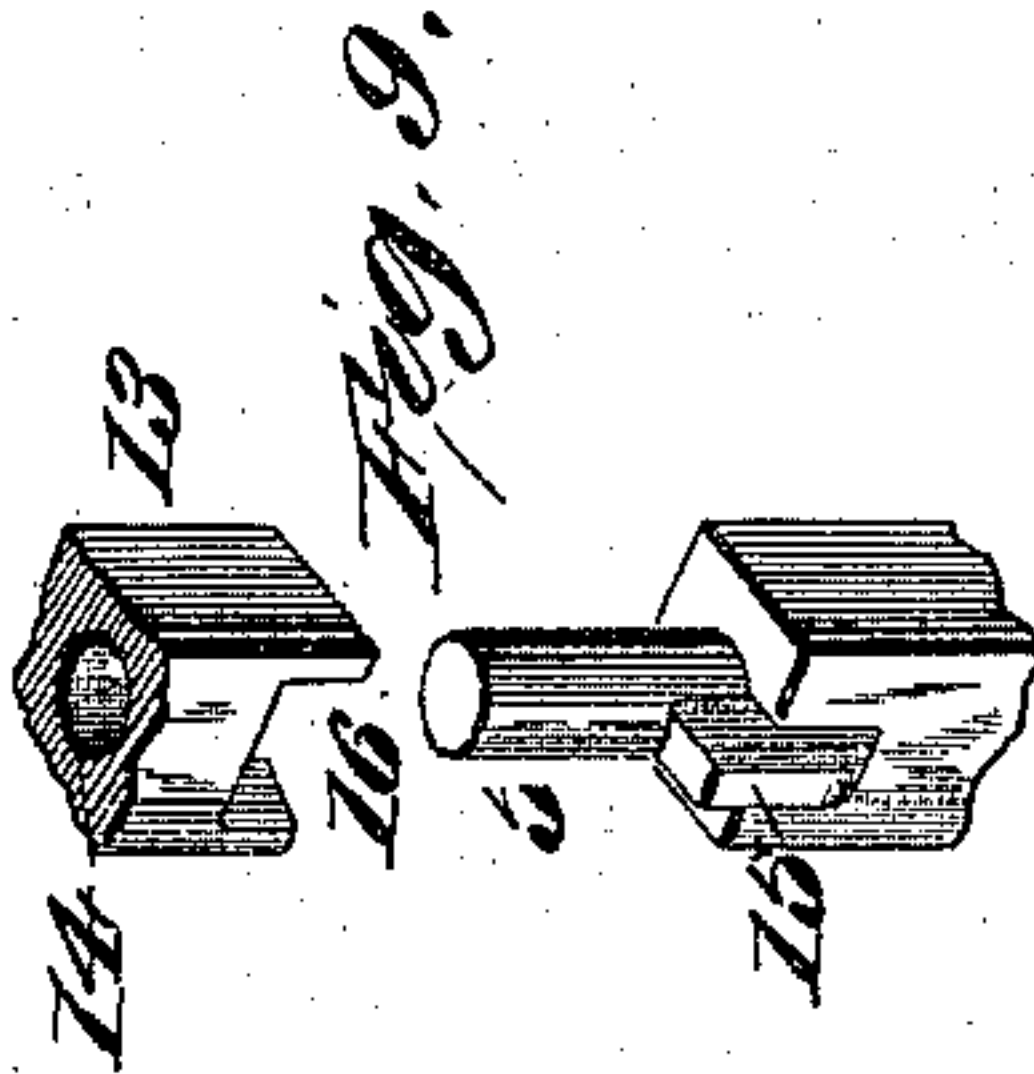
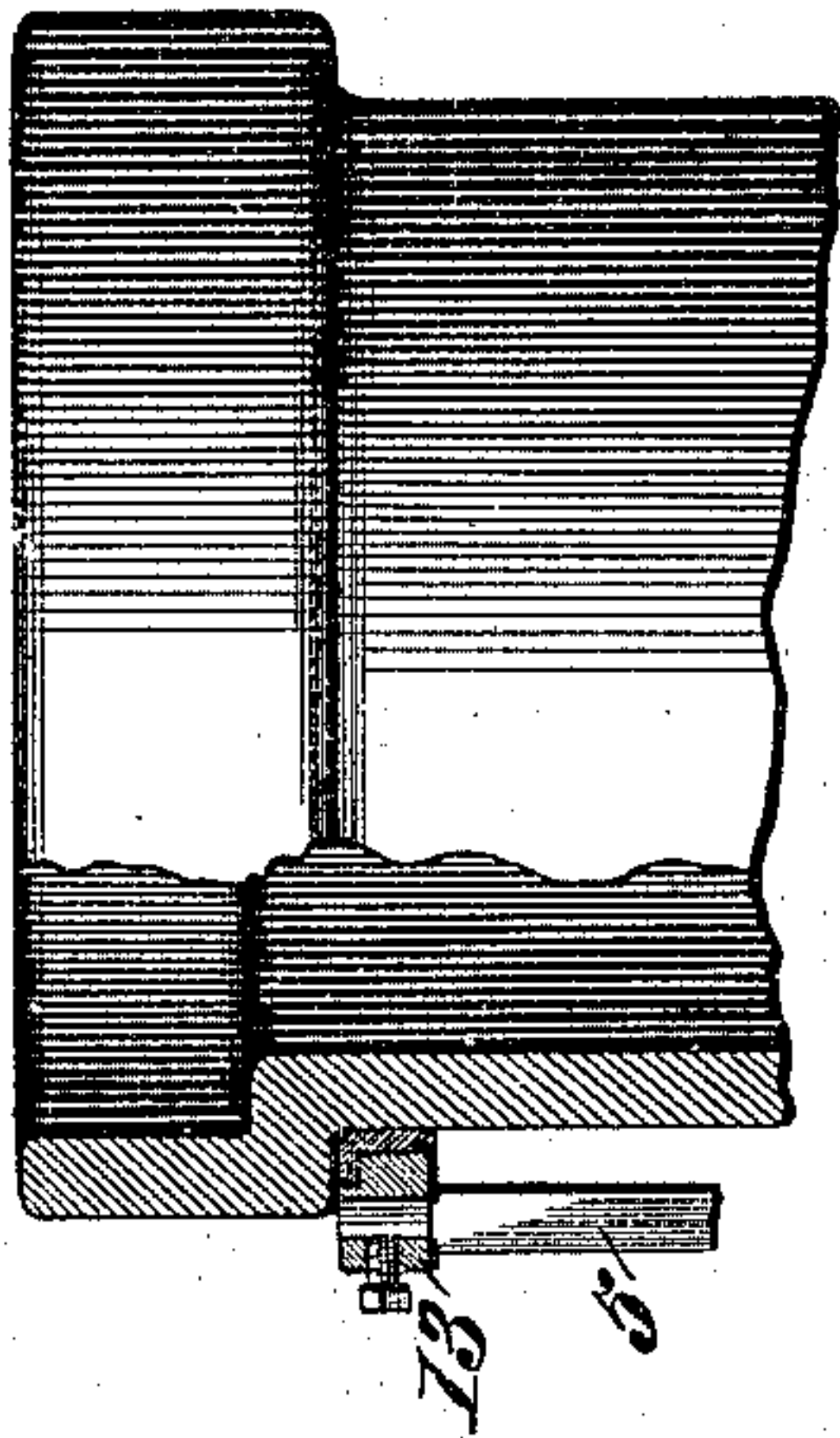
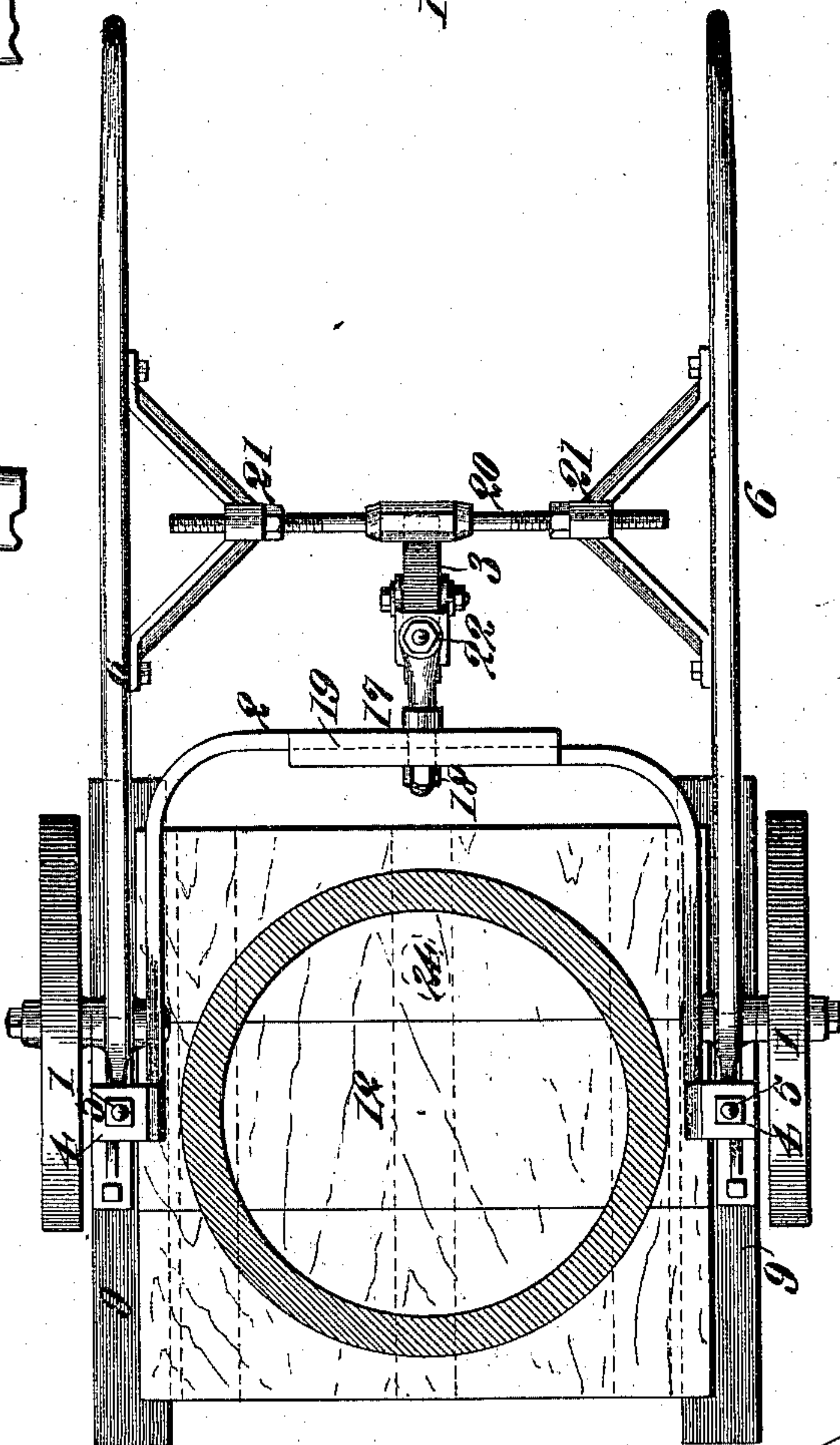


Fig. 3.



Attest:

Chas. E. Rice

A. Payson.

Inventor:

G. E. Foster

By

Carroll & Co.
Attys.

UNITED STATES PATENT OFFICE.

GEORGE E. FOSTER, OF MADISON COUNTY, ILLINOIS.

SEWER-PIPE TRUCK.

SPECIFICATION forming part of Letters Patent No. 547,343, dated October 1, 1895.

Application filed June 24, 1895. Serial No. 553,858. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. FOSTER, residing in the county of Madison, State of Illinois, have invented a new and useful Sewer-Pipe Truck, of which the following is a specification.

My invention relates to devices for conveying earthenware pipe, and especially for conveying pipe which has recently been formed and is still more or less plastic.

The object of my invention is to facilitate the handling of the pipe and reduce the danger of accidental losses from such handling; and it consists in the truck and in the parts and combinations thereof hereinafter described and claimed.

In the accompanying drawings, which form part of this specification, Figure 1 is a side elevation of my device, showing a sewer-pipe thereon. Fig. 2 is an end elevation thereof. Fig. 3 is a plan thereof, showing the pipe in section. Fig. 4 is a sectional detail view of the axle, showing the means of adjusting and of securing the caster-wheel. Fig. 5 is a vertical detail section showing the manner of operating the lifter-bars. Fig. 6 illustrates a modification of my device, wherein supporting-arms with swivel top blocks adapted to fit the shoulder of the pipe are substituted for the lifter-bars with suspended plates. Figs. 7 and 8 illustrate the operation of the swivel blocks, and Fig. 9 illustrates one means of limiting the rotary motion of the swivel top block.

The two main wheels 1 of my truck are journaled on an axle 2, whose middle portion is preferably bent horizontally and is adjustable, and an auxiliary caster-wheel 3 is fastened to this middle portion. By increasing the size of the wheel a straight axle may be used, but with less advantage than a bent axle. The axle 2 carries near each wheel a housing 4, in which is a vertically-movable lifter-bar 5. The lifter-bars 5 are actuated by means of a pair of hand-levers 6, fulcrumed on the axle 2 or on pivots conveniently located on the axle. A suitable means of connection between the lever and the lifter-bar is to have the short arm of the lever extend through an elongated slot 7 in the housing 4 into a slot 8 in the lifter-bar. The elongated slot 7 in the housing allows free movement of

the lever, which has a working contact with the end of the slot 8 in the lifter-bar and renders the lifter-bar detachable. To the lower end of each lifter-bar 5 is fastened a horizontal plate 9, close to and approximately parallel with the corresponding wheel 1. A simple means of fastening the horizontal plate to its lifter-bar is by means of a socket 10 thereon, into which the lower end of the lifter-bar fits. A removable pin or key 11, extending through holes in the walls of the socket and through a slot in the lifter-bar, holds the plate firmly but detachably in position. The horizontal plates 9 are designed to pass under the edges of the pipe-boards 12, upon which the newly-formed pipes usually rest. These pipe-boards 12 have cleats or cross-pieces 24 on the under side by which the edges of the boards are raised sufficiently for the horizontal plates 9 in their lowest position to pass beneath them when the truck is moved forward. When the levers are operated, the pipe-board, with the pipe thereon, is lifted clear of the ground and is ready to be hauled off.

Instead of raising the pipe by means of plates suspended from the lifter-bars, it is sometimes preferable to provide the upper end of the lifter-bars with top blocks 13, adapted to fit under the shoulder at the bell end of the pipe. For this purpose the top end of each lifter-bar is turned cylindrical to fit and form an axle for a cylindrical hole 14 in the top block 13, which is therefore detachable from the lifter-bar. The inner edge of the top block 13 is curved in a nearly-circular arc. In order to limit the rotation of the top block, a pin or feather 15, fixed to the lifter-bar, projects upwardly into a slot 16, cut in the under face of the top block. When either end of the slot strikes against the pin 15, the rotary movement of the top block is stopped. The action of the swivel top blocks is as follows: As the truck is rolled forward, the advanced ends of the top blocks straddle the body of the pipe, and as the movement continues the rear ends of the top blocks strike the pipe and cause the top blocks to turn automatically on their pivots and rest with their entire inner edges under the pipe-shoulder. When the lifter-bar is raised by the lever, the top blocks bear against the shoulder and raise the pipe. Obviously the

same lifter-bars may be provided with the horizontal plates 9, and with the swivel top blocks 13.

As hereinbefore stated, it is preferable to have the axle adjustable in order to handle pipes of different diameter. For this purpose the axle is made in sections, which overlap each other and are slotted to accommodate a bolt or clamp 17, upon which a screw 18 works to clamp the sections at the desired adjustment.

The joint of the overlapping sections is made more secure by angle-bars or by plates 19, fastened to one or both of said sections and overlapping both, as fully shown in Fig. 4.

In order to prevent distortion or strain of the pipe, the operating levers are fastened together to raise both lifter-bars simultaneously. A convenient fastener for this purpose is a right- and-left threaded rod 20, whose ends work in corresponding screw-nuts or threaded-sockets 21 on such levers. By this means the lever fastening readily conform to the adjustment of the axle. The caster-wheel 3 is fastened by a swivel-joint 22 to the adjusting-clamp 17, or to any other convenient portion of the axle.

The operation of the device is as follows: When the truck is approaching a pipe the lifter-bars are lowered simultaneously by means of the hand-levers, and the plates suspended from the lifter-bars or the top blocks thereon, as the case may be, pass under the edges of the pipe-board or around the pipe beneath the shoulder thereof. The bend in the axle permits the wheel to straddle the pipe in the movement. The hand-levers are operated to raise the lifter-bars, which carry the pipe up with them, and in this position the pipe is clear of the ground, ready to be conveyed to its destination, where it is unloaded by the reverse operation. Obviously, the truck may be used for carrying other articles as well as pipe.

What I claim as new, and desire to secure by Letters Patent, is—

1. A pipe truck comprising a pair of wheels

mounted on a horizontally bent adjustable axle, a caster wheel fastened to the middle portion of the axle, vertically movable lifter bars detachably carried by said axle and means for operating said lifter bars, substantially as described.

2. A pipe truck comprising a pair of wheels mounted on an axle, vertically movable lifter bars carried by said axle, horizontal plates detachably suspended from said lifter bars and means for operating said lifter bars, substantially as described.

3. A pipe truck comprising a pair of wheels mounted on an axle, vertically movable lifter bars carried by said axle, swivel top blocks on said lifter bars adapted to cooperate automatically with the shoulder of the pipe and means for operating said lifter bars, substantially as described.

4. A pipe truck comprising a pair of wheels mounted on an axle, vertically movable lifter bars carried by said axle, horizontal plates suspended from said lifter bars and automatically acting swivel top blocks thereon, and means for operating said lifter bars, substantially as described.

5. A pipe truck comprising a pair of wheels mounted on an adjustable axle, vertically movable lifter bars carried by said axle, horizontal plates suspended from said lifter bars and automatically acting swivel top blocks thereon, and means for operating said lifter bars, substantially as described.

6. A pipe truck comprising two wheels mounted on an axle, vertically movable lifter bars detachably carried by said axle and working in housings provided therefor, and hand levers fulcrumed on said axle, one end of each lever extending through a slot in the wall of the corresponding housing into a working slot in the lifter bar, substantially as described.

Signed this 22d day of June, 1895.

GEO. E. FOSTER.

In presence of—

JAMES J. O'DONOHUE,
THOS. FERRY.