

(No Model.)

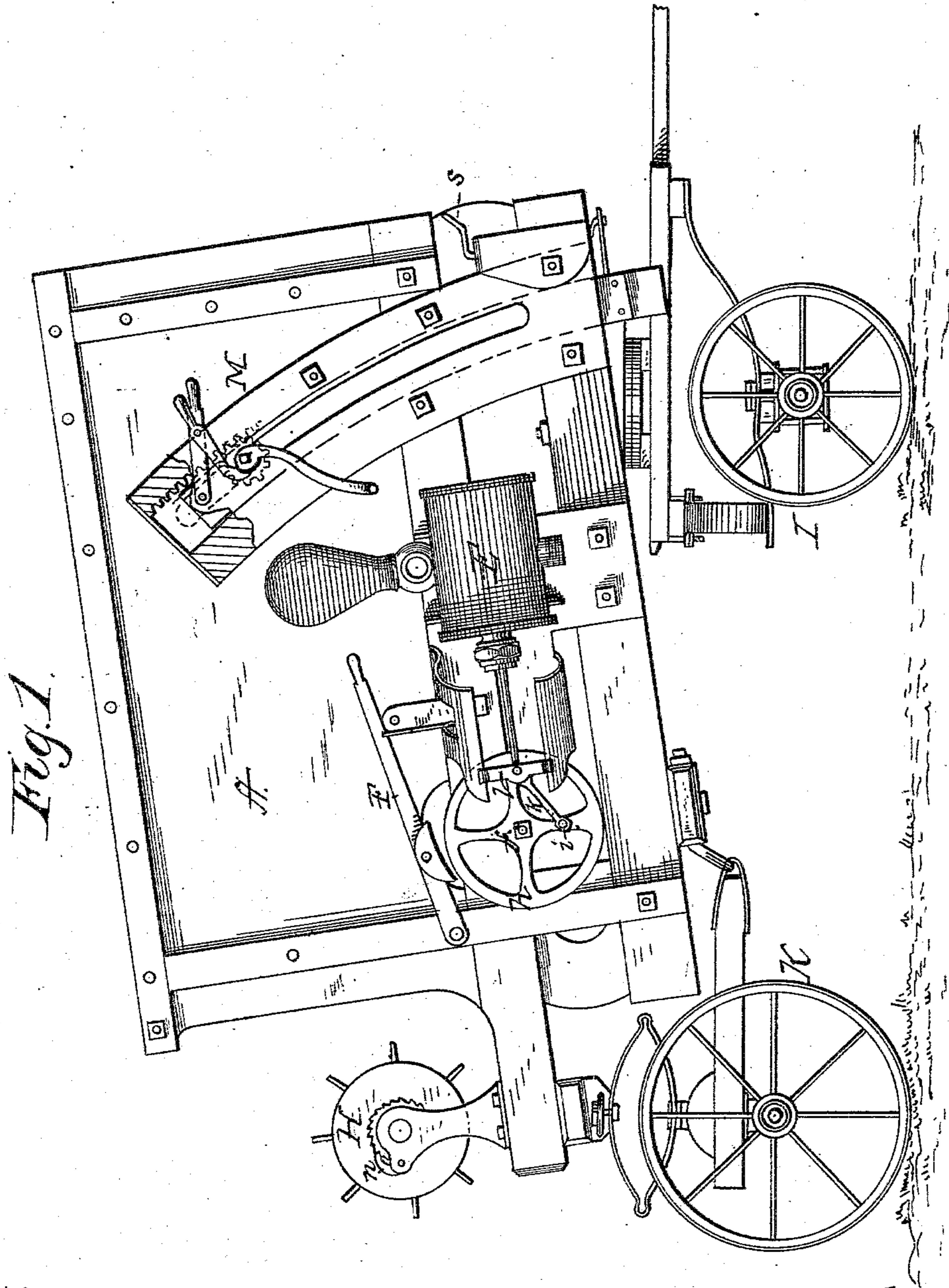
3 Sheets—Sheet 1.

C. T. UNANGST.

PORTABLE HORSE POWER FOR OPERATING FIRE ENGINES.

No. 287,891.

Patented Nov. 6, 1883.



Witnesses
F. L. Ouraud
A. G. Kyeleman.

Inventor,
C. T. Unangst,
by M. M. Ewen
Attorney

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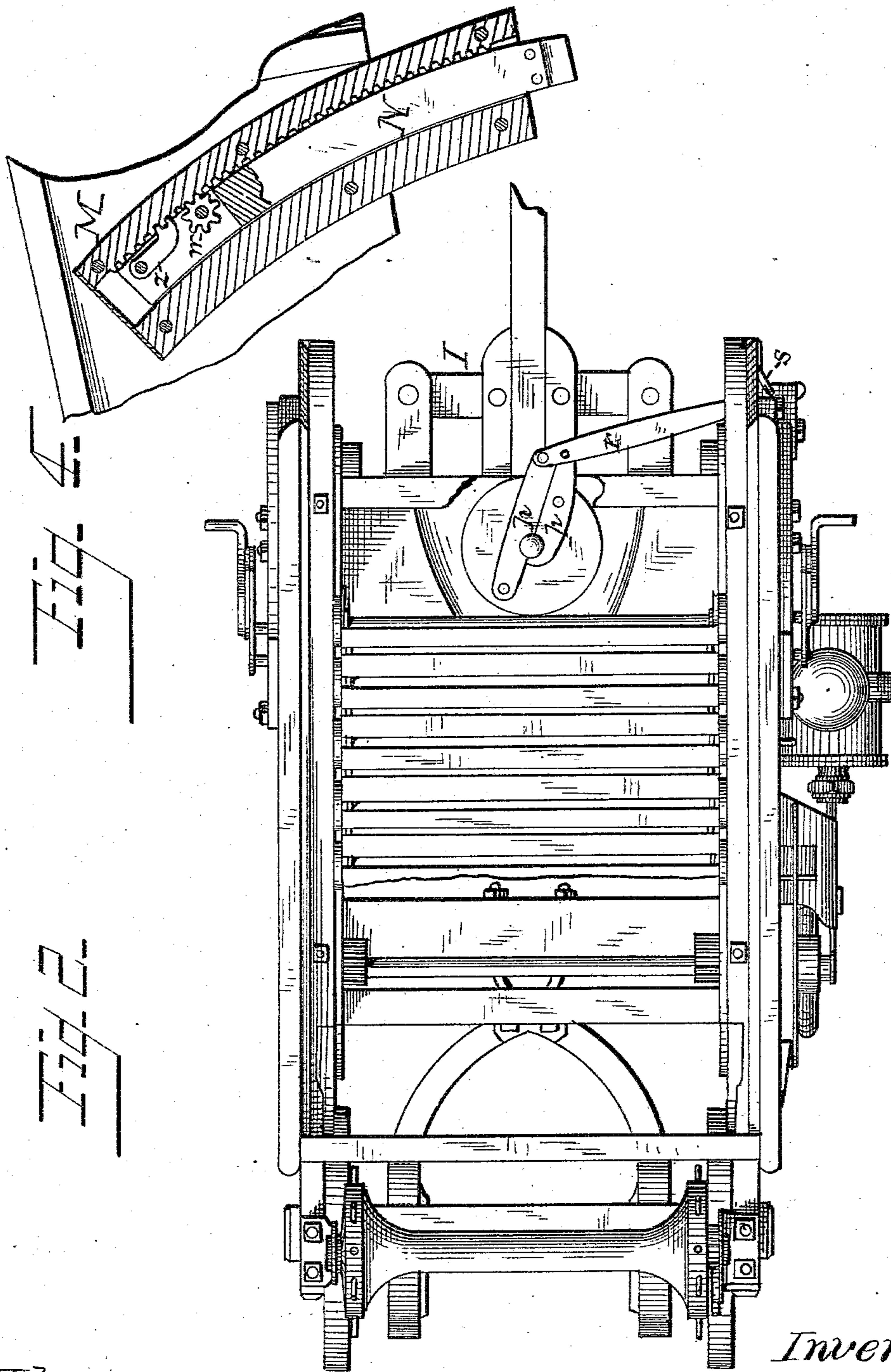
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Attorney

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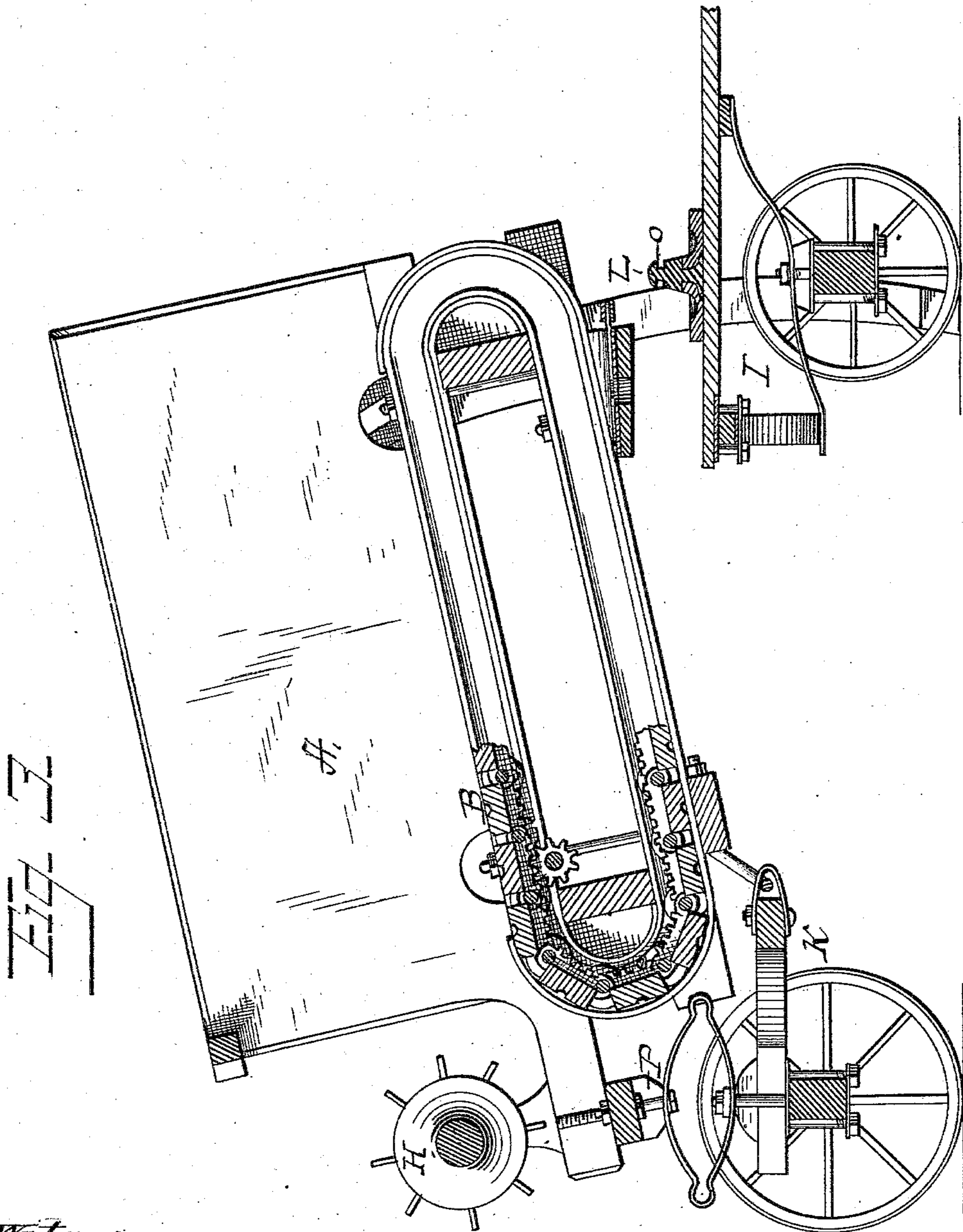
3 Sheets—Sheet 3

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Witnesses,
F. L. Curand
A. G. Heylman.

Inventor,
C. T. Unangst
by M. M. Cowen
Attorney

UNITED STATES PATENT OFFICE.

CHRISTOPHER T. UNANGST, OF SWARTSWOOD, NEW JERSEY.

PORTABLE HORSE-POWER FOR OPERATING FIRE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 287,891, dated November 6, 1883.

Application filed November 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER T. UNANGST, a citizen of the United States, residing at Swartswood, in the county of Sussex and State of New Jersey, have invented certain new and useful Improvements in Portable Horse-Powers for Operating Fire-Engines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to portable horse-powers for operating fire-engines.

My improvement consists in the novel construction and combination of parts, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 represents a side view of my fire-engine. Fig. 2 is a plan view of the same, the traveling platform partly broken away. Fig. 3 is a longitudinal sectional view; and Fig. 4 is a detail view of one of the sectors with its adjuncts.

The letter A represents a horse-power of the class in which an endless traveling platform is employed. This power should preferably be made for two horses.

The traveling platform B may be of any suitable structure or kind, and communicates motion to the piston-rod of the pump, substantially as shown.

To the outer end of the shaft *f* is attached a fly-wheel, *h*, with a wrist-pin, *i*, and to which the connecting-rod *k*, connected to the cross-head *l*, is attached.

The letter E represents a pump with the ordinary air-chamber and the induction and discharge pipes attached to the side of the frame by a suitable bed, as shown in Fig. 1 of the drawings. This bed is provided with suitable guideways for the cross-head to which the piston-rod and connecting-rod are attached.

The letter F represents a brake-lever, pivoted immediately above the fly-wheel, and acts in connection with the lever-rest and back *m*. When it is desired to stop the pump from working, the lever-brake is pulled down, with its shoe resting upon the periphery of the fly-wheel, and locked.

The rear end of the frame is provided with a mounted reel, H, having a ratchet-wheel co-

operated with a pawl, *n*, pivoted to the reel-standard.

The letters I and K represent the front and rear trucks, suitably connected to the bed-work of the horse-power frame. The front truck is provided with a center or king bolt, L, the upper end of which is formed with a groove, *o*, to receive a locking means. This front truck is connected to the horse-power frame (see Fig. 2) by means of the two pivoted jaws *p p*, attached to the connecting-rod *r*, carrying at one end a crank, *s*, for closing the jaws around the king-bolt. When the machine is at a fire the front truck is uncoupled by opening the pivoted jaws from the king-bolt, for running the truck from under the machine.

To the front sides of the frame are secured the sector-guideways M, preferably cast in one piece, (see Figs. 1 and 4,) curved and slotted, the upper side wall being formed or provided with rack-teeth. Arranged between and under the walls of the guideways is a sector-bar, N, forming legs or supports to the machine when the horses are at work on the traveling platform. This sector-bar, at its upper end, is provided with a pinion, *w*, to engage with the rack-teeth on the upper side wall of the guideway, as shown. The outer end of the shaft carrying the pinion *w* is provided with a crank for operating the same. Immediately above the pinion, and connected to the sector-bar, is a pawl, *z*, to dog into the rack-teeth, by actuating its lever, and lock the sector-bar at the desired point or place.

This fire-engine is more especially intended for small towns that have volunteer firemen.

The letter P represents set-screws arranged in the cross-bar at the hind end of the machine, directly over each wheel, and serve as means to take the weight off the spring by resting on the tires of the wheels, and also serve to level and adjust the set of the machine when in operation.

Operation: When the alarm of fire is given the horses are hitched to the apparatus and drawn to the fire. Then the horses are unhitched, the front truck uncoupled and detached, and this end lowered and sustained in a desired elevation by means of the sector-bars.

The horses are now put upon the traveling platform to work the apparatus, and as the traveling platform is moved motion is communicated to the piston-rod through the agency of the fly-wheel and connecting-rod.

That portion of the invention relating to the fire-engine herein described will form the subject of another application.

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

1. A horse-power mounted on wheels and carrying at its rear end a hose-reel, substantially as described.

2. In combination with a horse-power, the detachable front truck, and a coupling device for locking and unlocking the truck, substantially as described.

3. In combination with a horse-power, the side sector-bars with actuating mechanism for elevating or lowering the front end of the horse-power frame, substantially as described.

4. In combination with a horse-power, the side sector-bars with actuating mechanism for elevating or lowering the front end of the horse-power frame, and locking device, substantially as described.

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

CHRISTOPHER T. UNANGST.

Witnesses:

THEODORE MORFORD,
C. S. STEELE.