

No. 717,293.

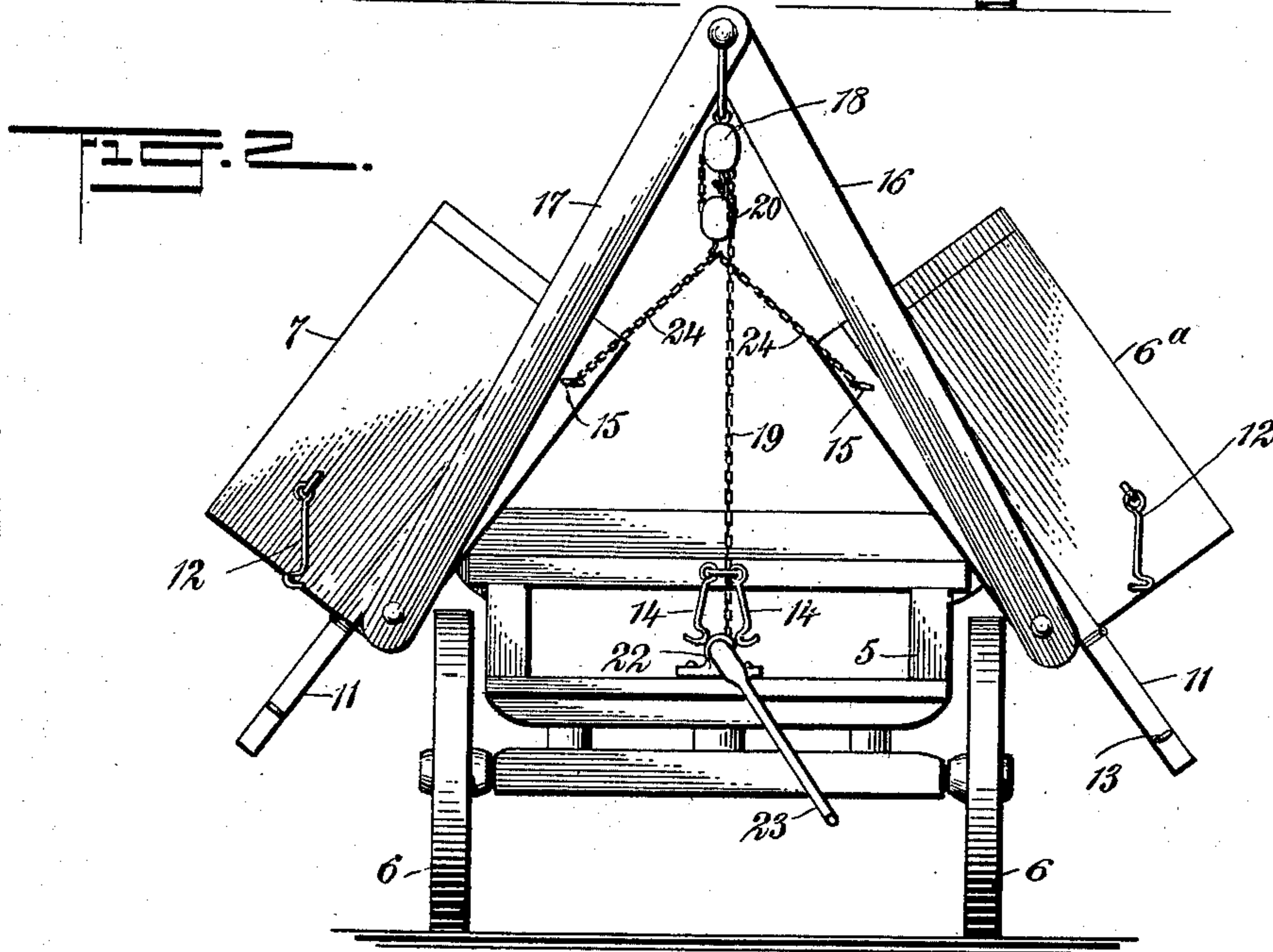
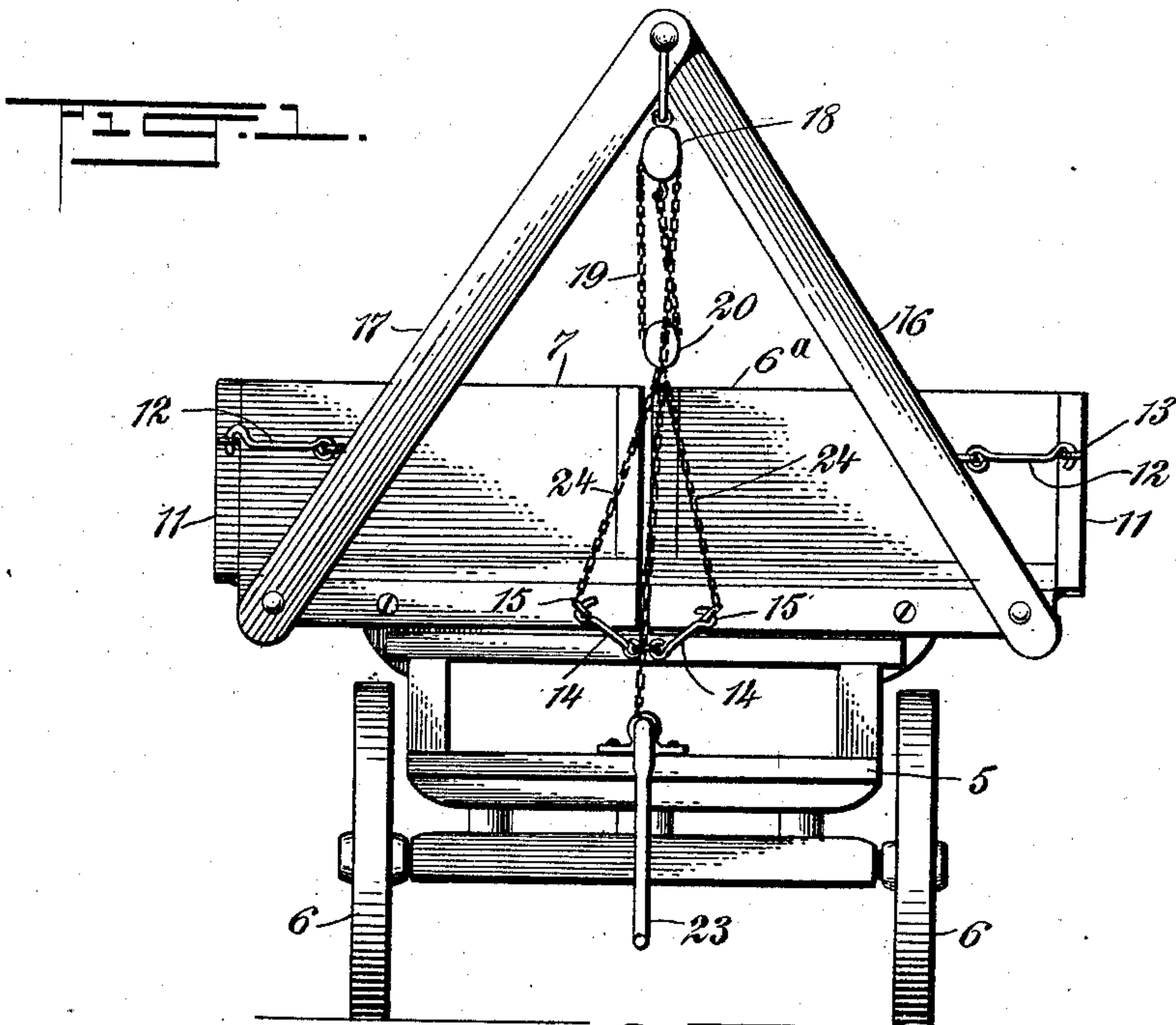
Patented Dec. 30, 1902.

C. H. SMITH.
DUMPING VEHICLE.

(Application filed Oct. 1, 1902.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

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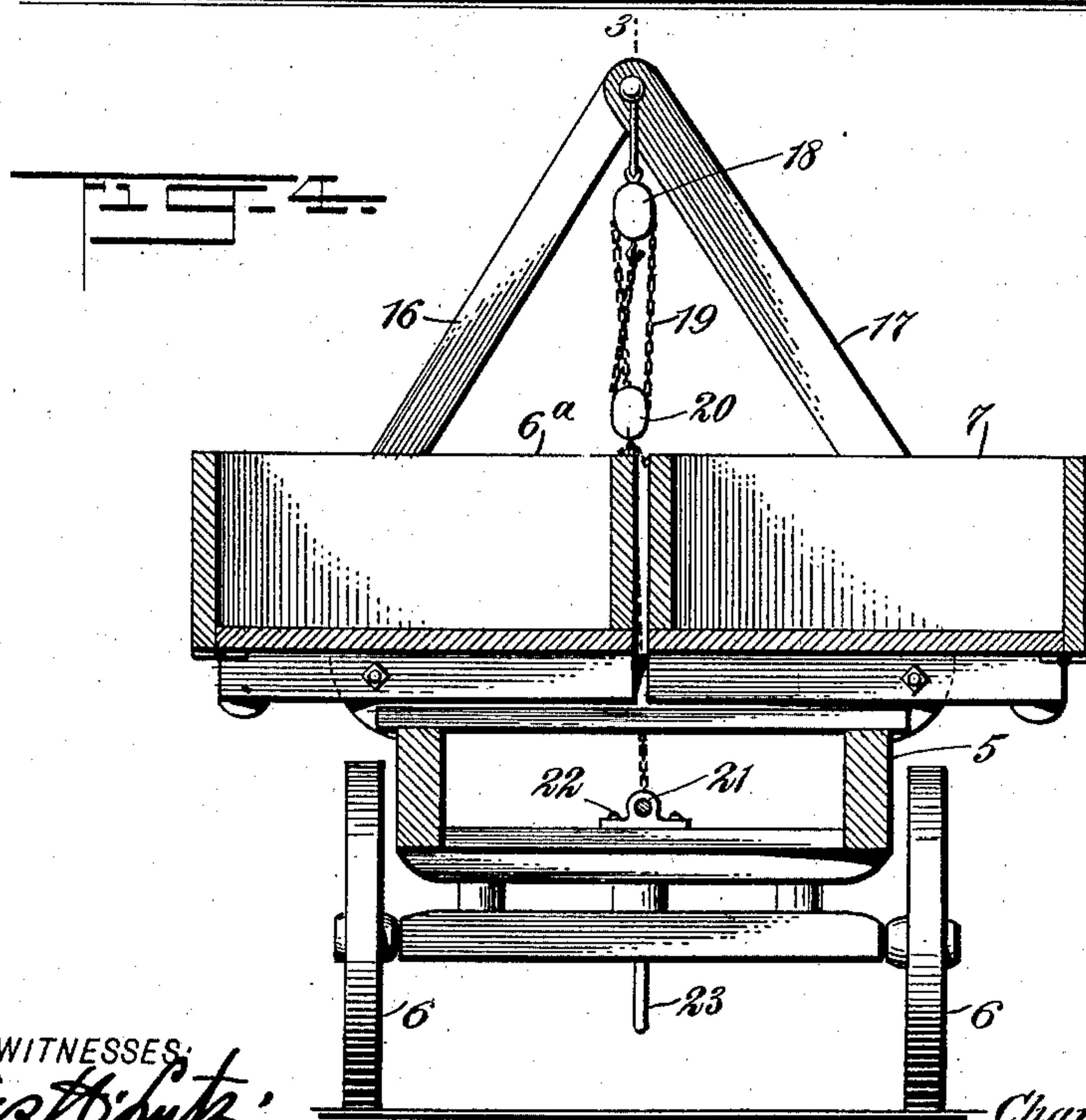
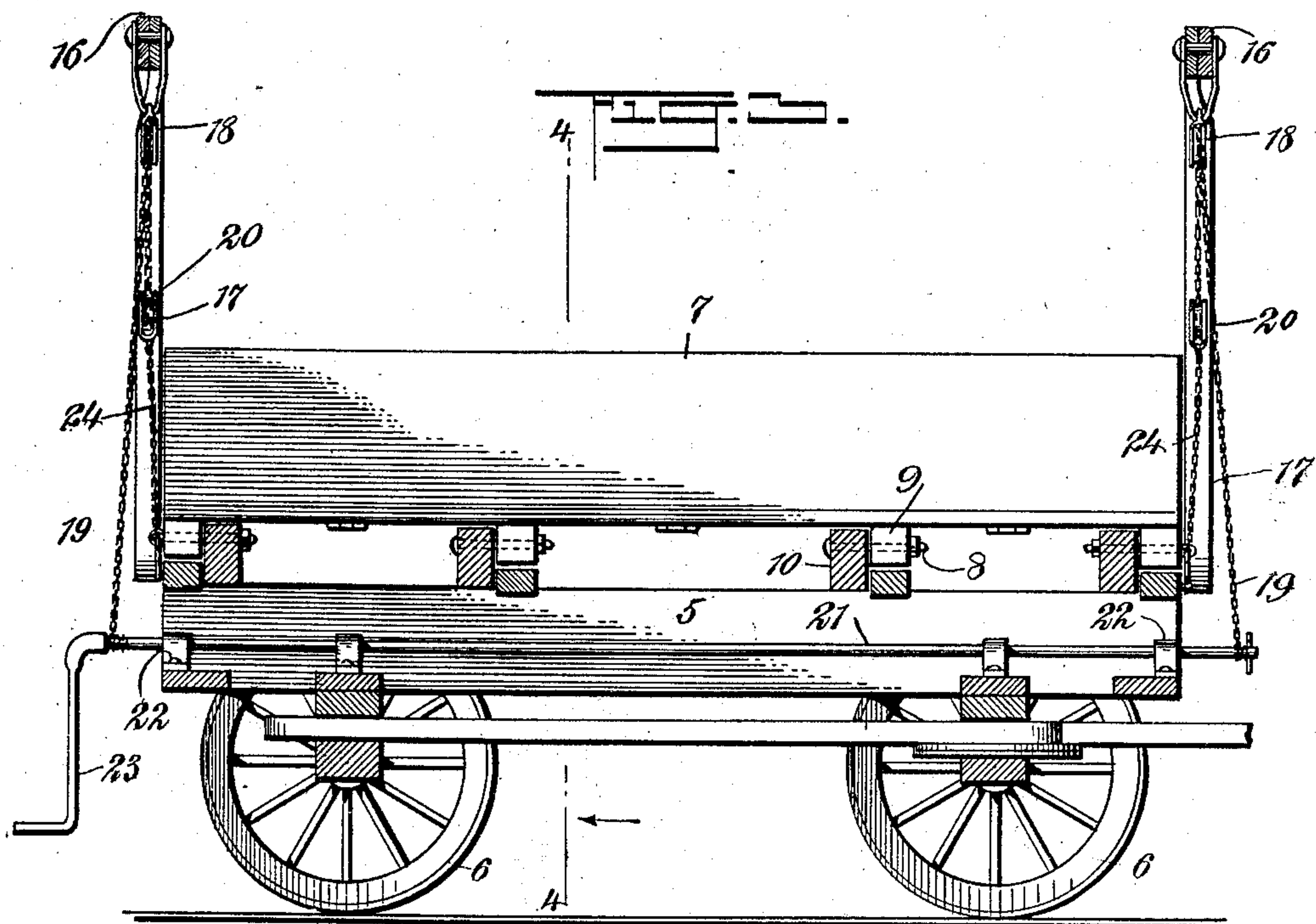
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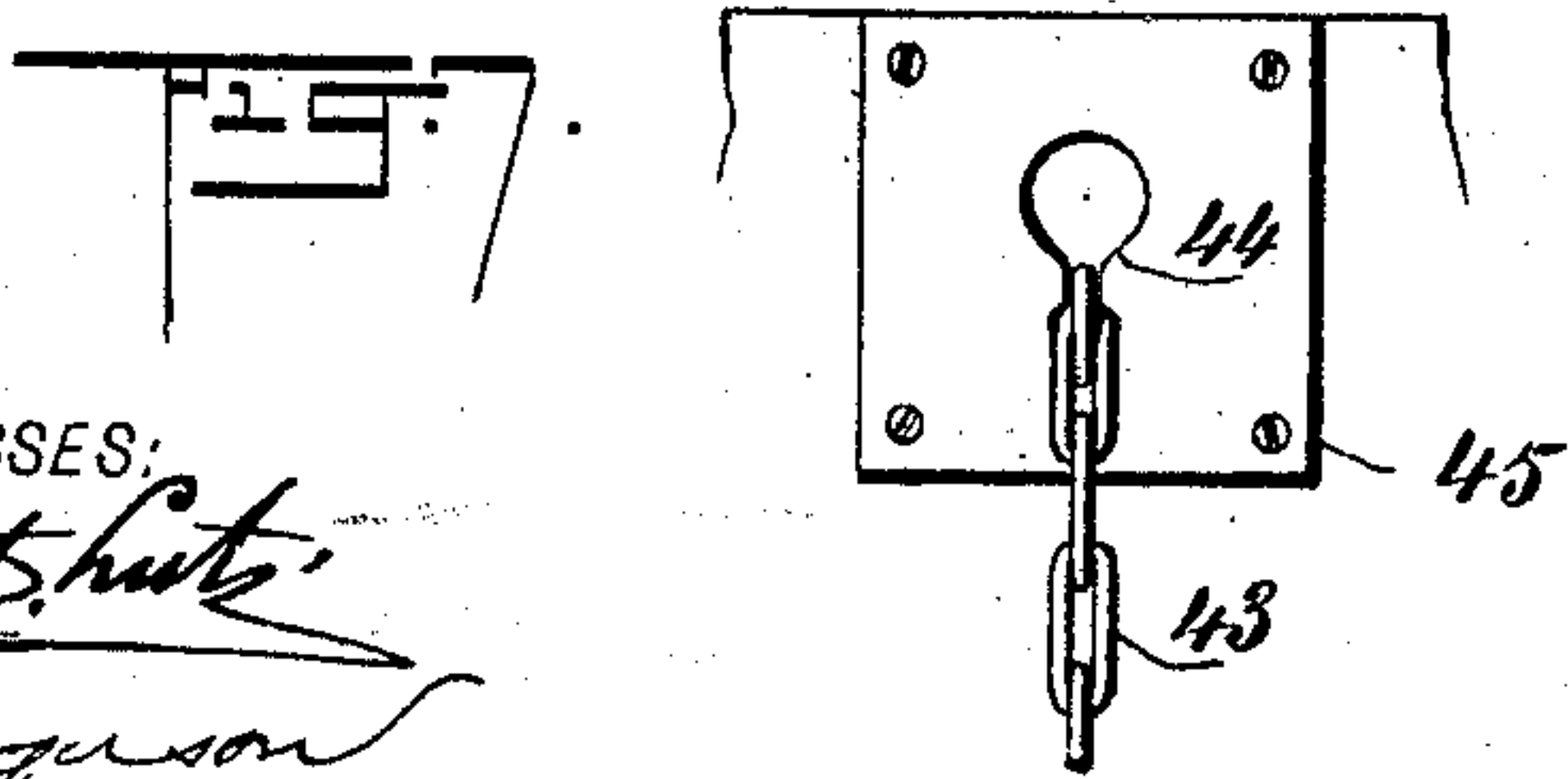
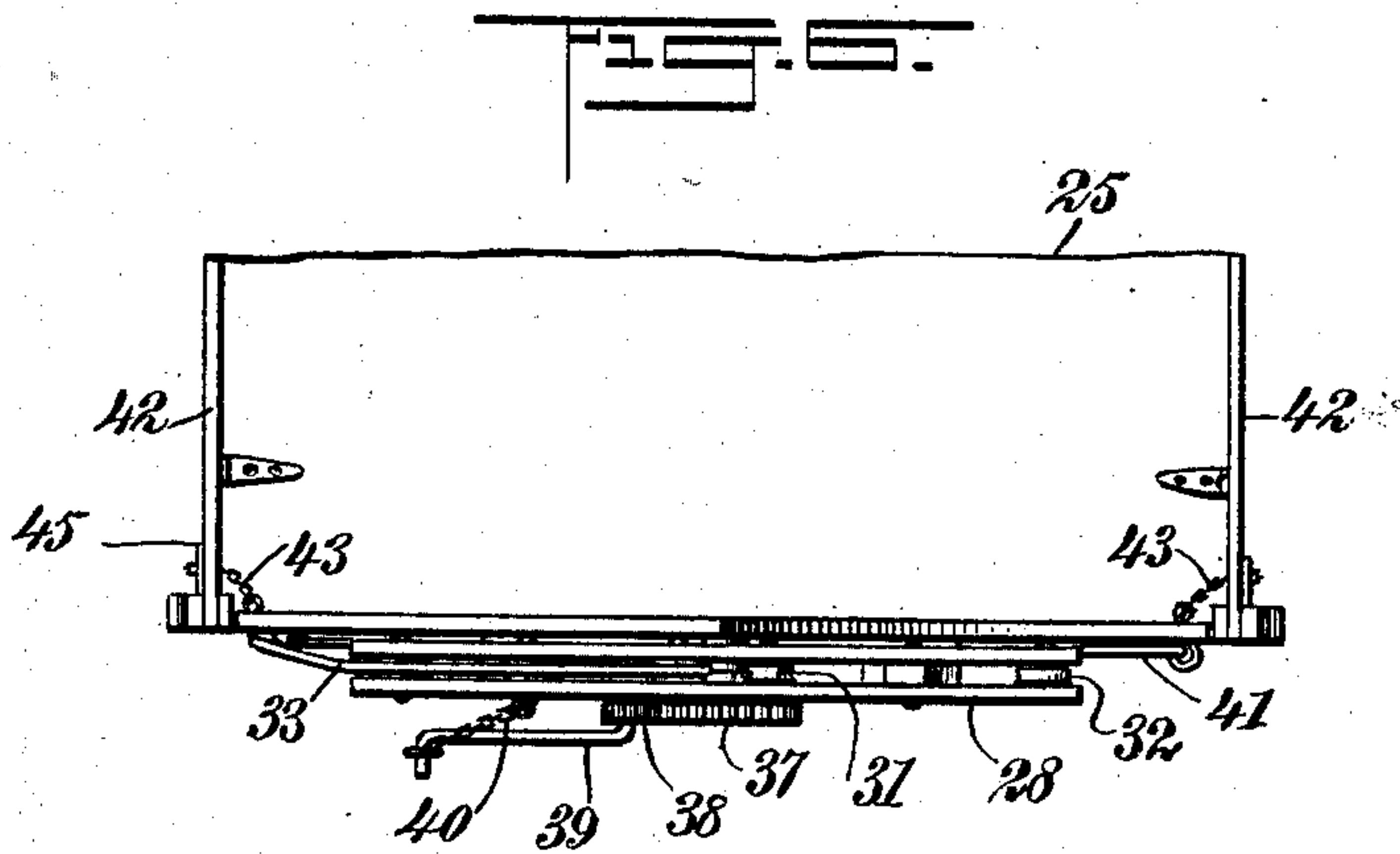
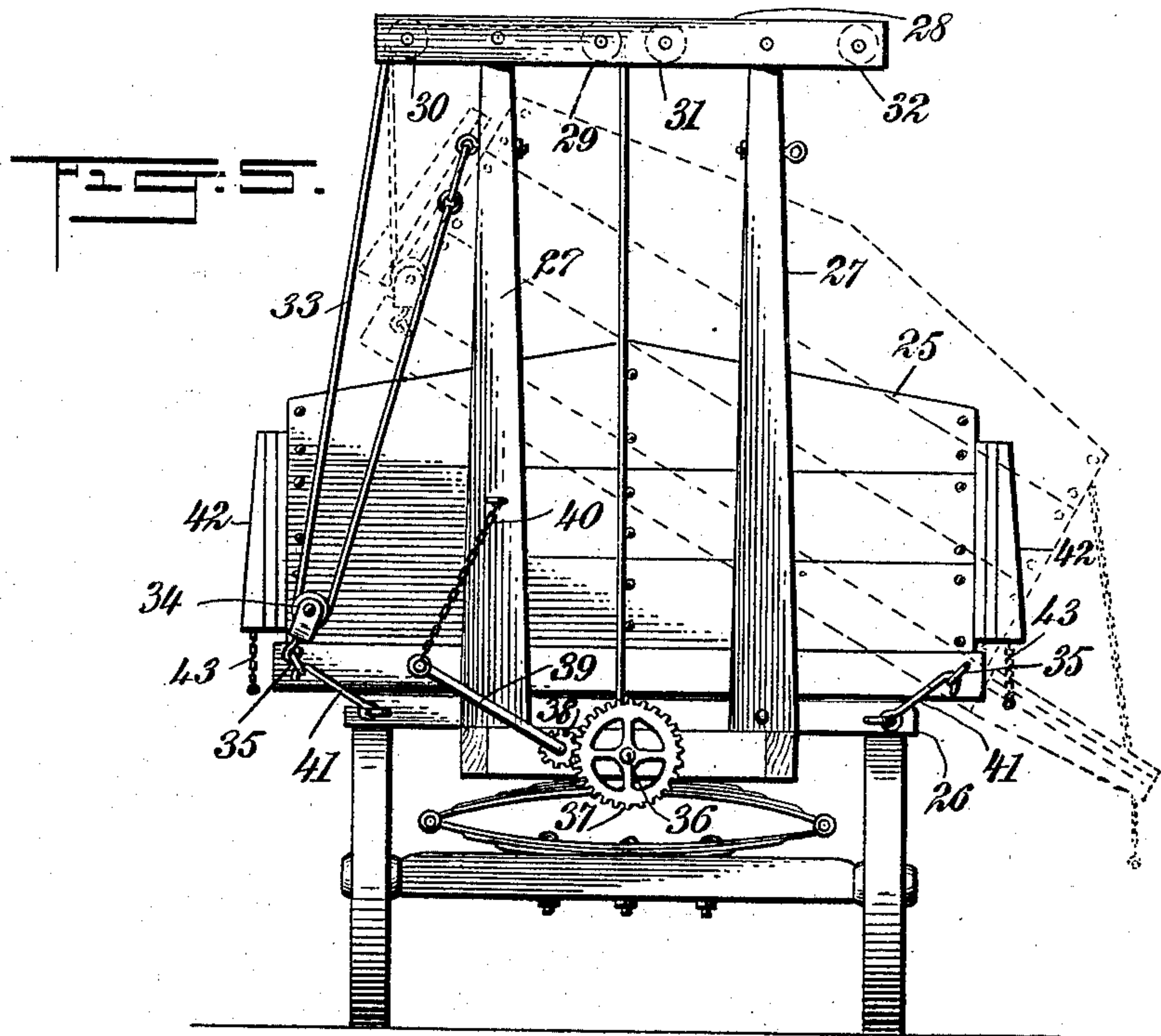
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

CHARLES HUMPHREY SMITH, OF GREELEY, COLORADO, ASSIGNOR OF ONE-THIRD TO GEORGE E. SETTLE, OF GREELEY, COLORADO.

DUMPING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 717,293, dated December 30, 1902.

Application filed October 1, 1902. Serial No. 125,505. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HUMPHREY SMITH, a citizen of the United States, and a resident of Greeley, in the county of Weld and State of Colorado, have invented a new and Improved Dumping-Vehicle, of which the following is a full, clear, and exact description.

This invention relates to improvements in dumping-vehicles, the object being to provide a body so arranged as to dump simultaneously at opposite sides of the vehicle or at one side at a time.

The invention, it is to be understood, may be attached to a wagon, cart, railroad-car, mine-car, or vessel.

I will describe a dumping-vehicle embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an end view of a dumping-vehicle embodying my invention and in load-carrying position. Fig. 2 is an end view thereof in dumping position. Fig. 3 is a section on the line 3 3 of Fig. 4. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is an end view of a dumping-vehicle, showing a modification. Fig. 6 is a partial plan view thereof, and Fig. 7 is a detail view of a locking device employed.

Referring to the drawings, 5 designates a frame, here shown as mounted on wagon-wheels 6; but, as before stated, it may be placed on a vessel or other form of carrying device. The body comprises two box-like members 6^a 7, mounted to swing on opposite sides of the frame. The fulcrums consist of bolts 8, which pass through blocks 9, attached to the bottom of the box, and through cross-bars 10 on the frame. It will be noted that the fulcrums or pivotal points are outside the center longitudinal line of the box, and therefore when loaded the greater weight of the load at the inner side of the fulcrum will serve to overbalance the part at the outer side of the fulcrum, thus preventing accidental tilting of the box or straining the same. Each box is provided with a downwardly-

swinging side-board 11, which is normally held closed by any suitable means. I have here shown a hook 12, attached to the box and engaging with an eye 13 on the side-board. These fasteners of course will be at each end. The boxes are held in horizontal or load-carrying position by locking devices, here shown as hooks 14 on the ends of the frame and engaging with eyes 15 on the ends of the boxes.

Dumping-bars 16 17 are arranged at each end of the vehicle, the two bars of an end being pivotally connected at the upper portion, and the lower portions are connected to the ends of the boxes near the outer edges. Suspended from the pivot of each pair of bars 16 17 is a pulley-block 18. From the pulley-block chains or ropes 19 extend, first, from a fixed part of the block—such, for instance, as a hook on the lower end—thence around a pulley-block 20, thence around the pulley of the block 18, and then to a winding-shaft 21, extended lengthwise of the frame and having bearings in blocks 22. Removably connected to one end of the shaft 21 is a crank 23. Chains 24 are connected to the eyes 15 at the ends of the boxes and have rings at their upper ends for engaging with the hooks on the pulley-blocks 20.

In operation should it be desired to dump at both sides simultaneously the hooks 14 are to be released from the eyes 15. Then by turning the shaft 21 the bars 16 and 17 will push downward on the outer portions of the boxes, while the chains, being connected with the hook of the pulley-block 20, will lift at the centers. Of course in dumping the side-boards 11 must be released. Should it be desired to dump at one side only, its hook 14 is to be released and the chain 24 of the other side released from the pulley-block 20. Then the shaft is to be operated as before described.

In the example of my improvement shown in Figs. 5 and 6 the body 25 is made to rock in either direction to dump the load. This body is mounted on the frame 26, and at the ends of the frame are uprights 27, connected at the upper end by a cross-bar 28, each cross-bar consisting of two members, as clearly shown in Fig. 6. Between the members of each cross-bar are pulleys 29, 30, 31, and 32. As shown in Fig. 5, a cable or rope 33 is at-

tached to one of the uprights 27 and passes thence around a pulley 34, which may be engaged with an eye 35 on the lower portion of the body. It then passes up over the pulleys 30 and 29 and down to a winding shaft or drum 36, which passes lengthwise of the vehicle-frame, and on the ends of this shaft are gear-wheels 37. Engaged by a pinion 38 on the shaft 7 is a crank 39. The gears may be held in locked position by means of chains 40, attached at one end to the cranks and at the other end to staples on the uprights. Hooks 41, attached to the frame, are designed to engage with the eyes 35 to hold the body rigidly in position. When the load is to be dumped in the opposite direction from that indicated in Fig. 5, it is obvious that the cable or rope is to be reversed—that is, passed over the pulleys 31 and 32 and engaged with the eyes 35 at the right-hand side. The side-boards 42 are made to swing downward, and they are held in their closed position by a suitable locking device, here shown as consisting of chains 43, attached to the end bars of the body and adapted to engage their links in keyhole-shaped openings 44, formed in plates 45, attached to the side bars. When locking, it is evident that the chain-links may be passed through the enlarged portion of the openings and then permitted to drop into the narrow portion. The said chains 43 also serve to support the side-boards in lowered position.

It will be noted that the two boxes shown in Figs. 1 to 4 practically form a single box or body equivalent to the box or body shown in Figs. 5 and 6.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a dumping-vehicle, a frame, a load-box mounted to swing on the frame, a pulley supported above the box, a pulley having connection with the box, a chain or cable extending around said pulleys, and a winding-shaft with which said chain or cable connects.

2. A dumping-vehicle comprising a frame, a box or body mounted to swing on said frame in either direction, uprights at the end of the frame, cross-bars on said uprights, pulleys arranged in the cross-bars, a winding shaft or drum extended lengthwise of the frame, and cables or ropes attached to the uprights and passing around pulleys carried by the body, and thence over the pulleys of the cross-bar and to the winding shaft or drum.

3. In a dumping-vehicle, a body, side-boards hinged thereto, plates secured to the side-boards and having keyhole-shaped openings, and chains attached to the end-boards of the body and adapted to engage in said openings, a pulley supported above the body, a winding-shaft and a connection between the shaft and body, the said connection passing over the pulley.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES HUMPHREY SMITH.

Witnesses:

WILLIAM HAND,
DODE B. FISHER.