

No. 635,626.

Patented Oct. 24, 1899.

J. WESTOVER.

BOX FOR CEREALS AND MEANS FOR HANDLING SAME.

(Application filed May 31, 1899.)

(No Model.)

3 Sheets—Sheet 1.

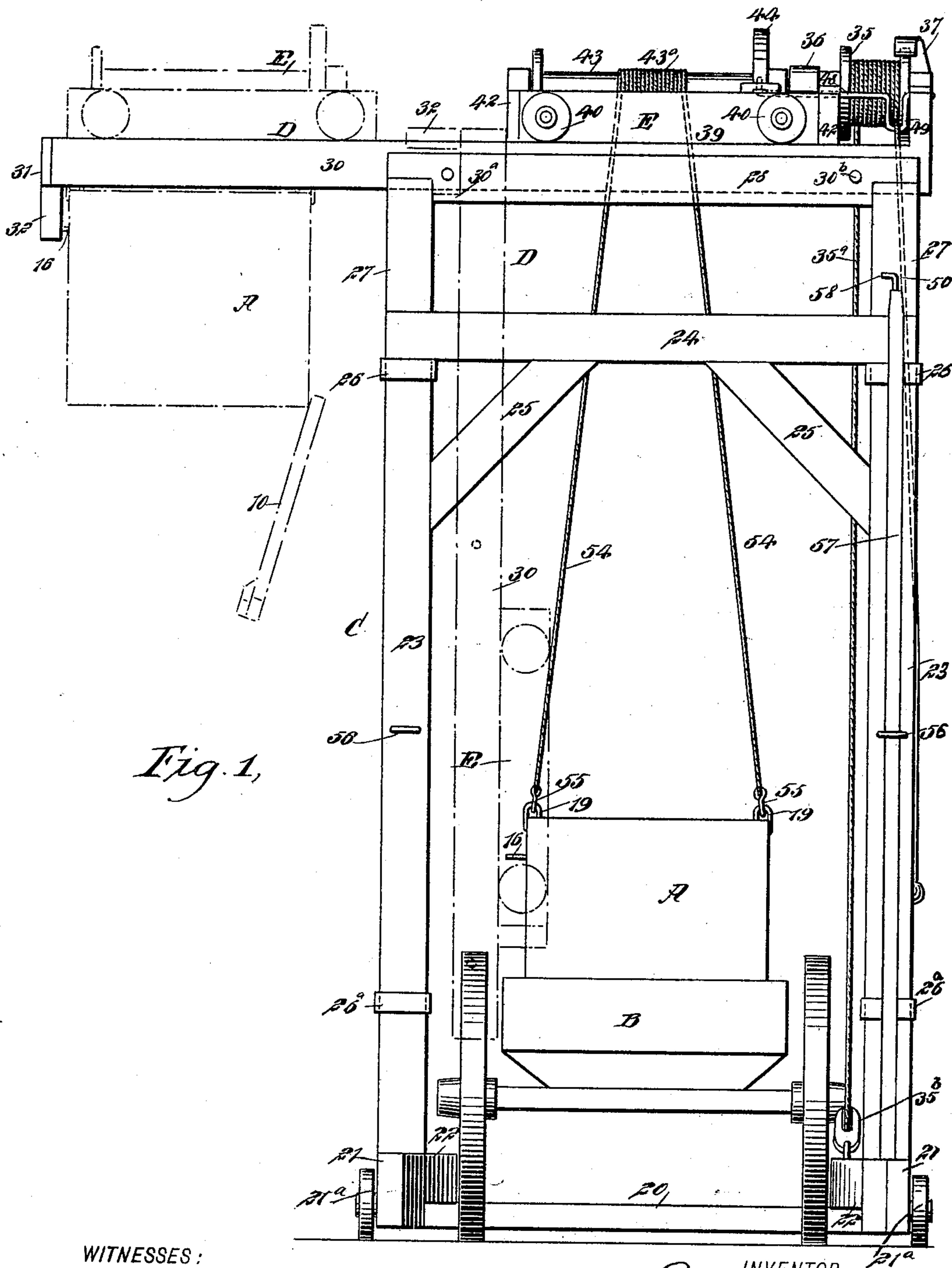


Fig. 1,

WITNESSES:

Edward Thorpe  
J. H. Peters

INVENTOR  
John Westover  
BY  
Munn & Co.  
ATTORNEYS

No. 635,626.

Patented Oct. 24, 1899.

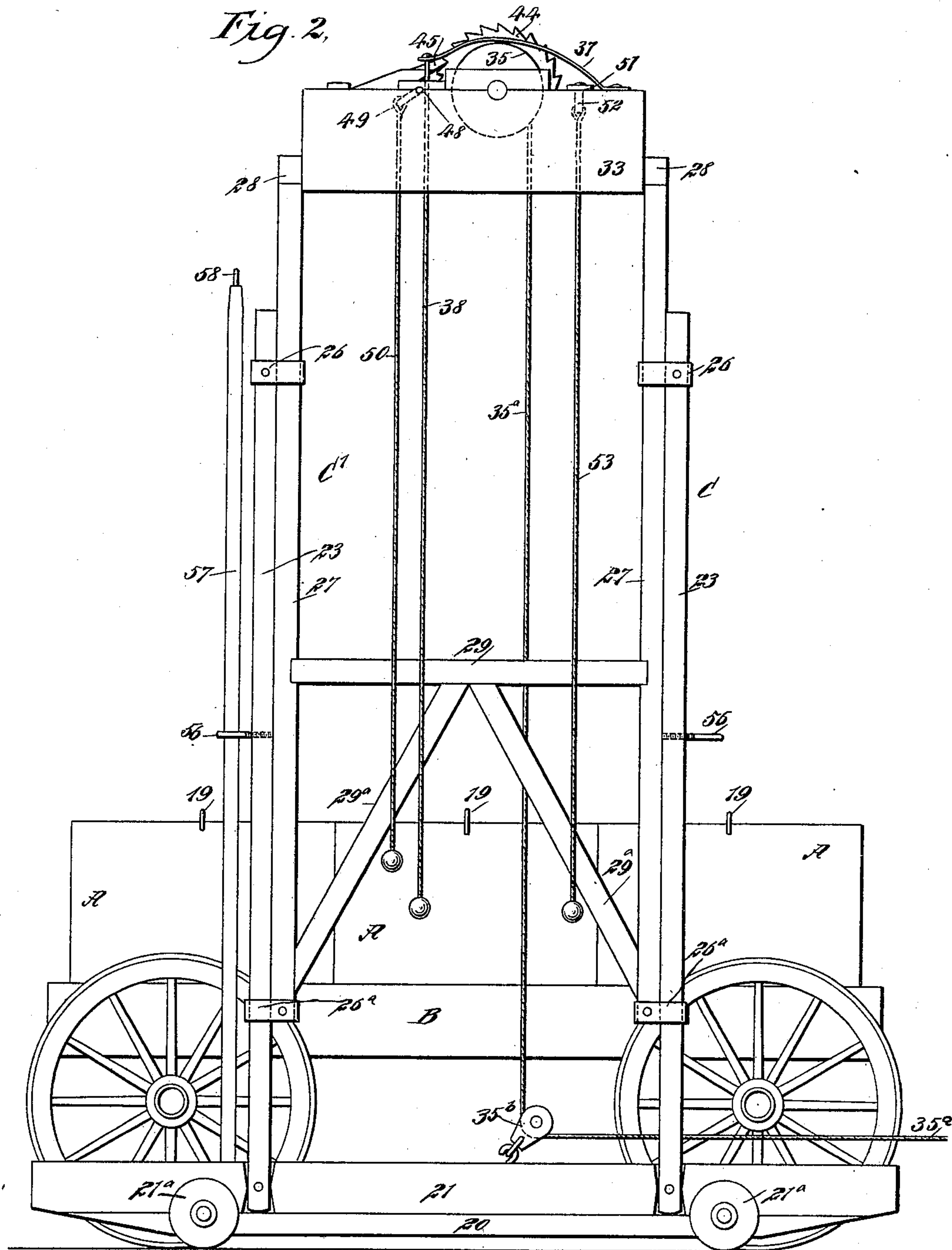
J. WESTOVER.

BOX FOR CEREALS AND MEANS FOR HANDLING SAME.

(Application filed May 31, 1899.)

(No Model.)

3 Sheets—Sheet 2.



WITNESSES:

Edward Thorpe  
J. M. Stokes

INVENTOR  
John Westover  
BY  
Mumford  
ATTORNEYS

**No. 635,626.**

**Patented Oct. 24, 1899.**

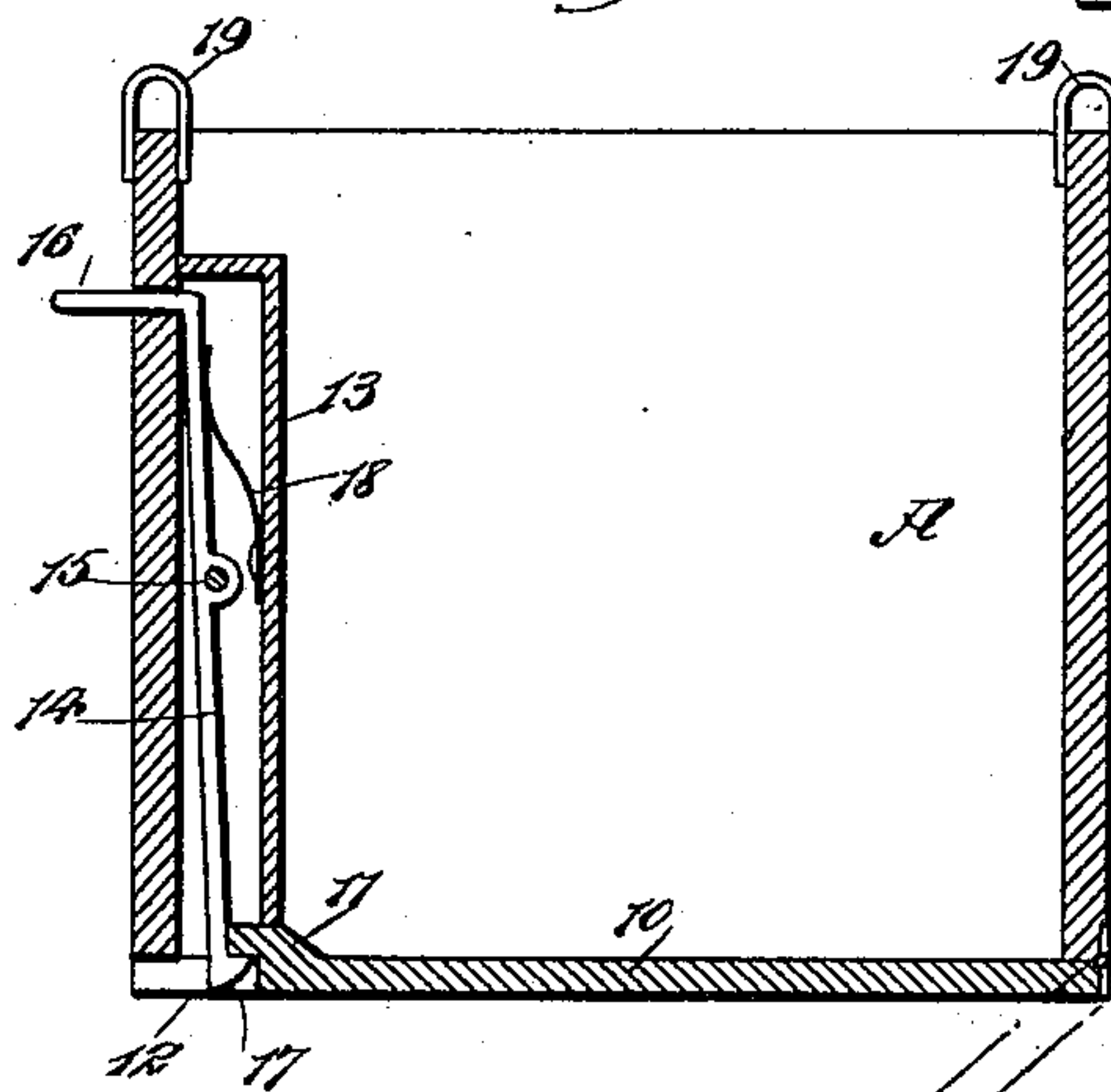
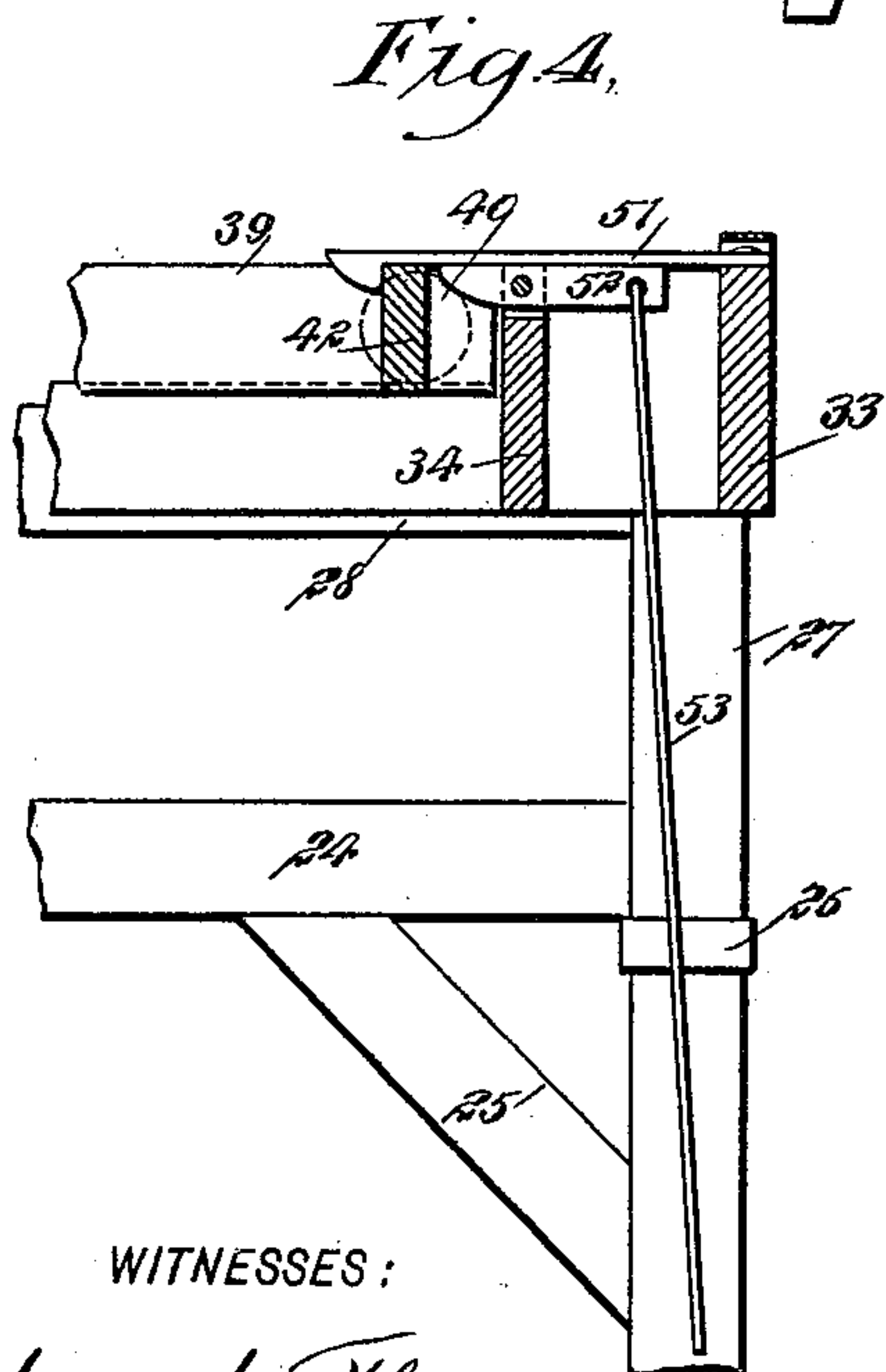
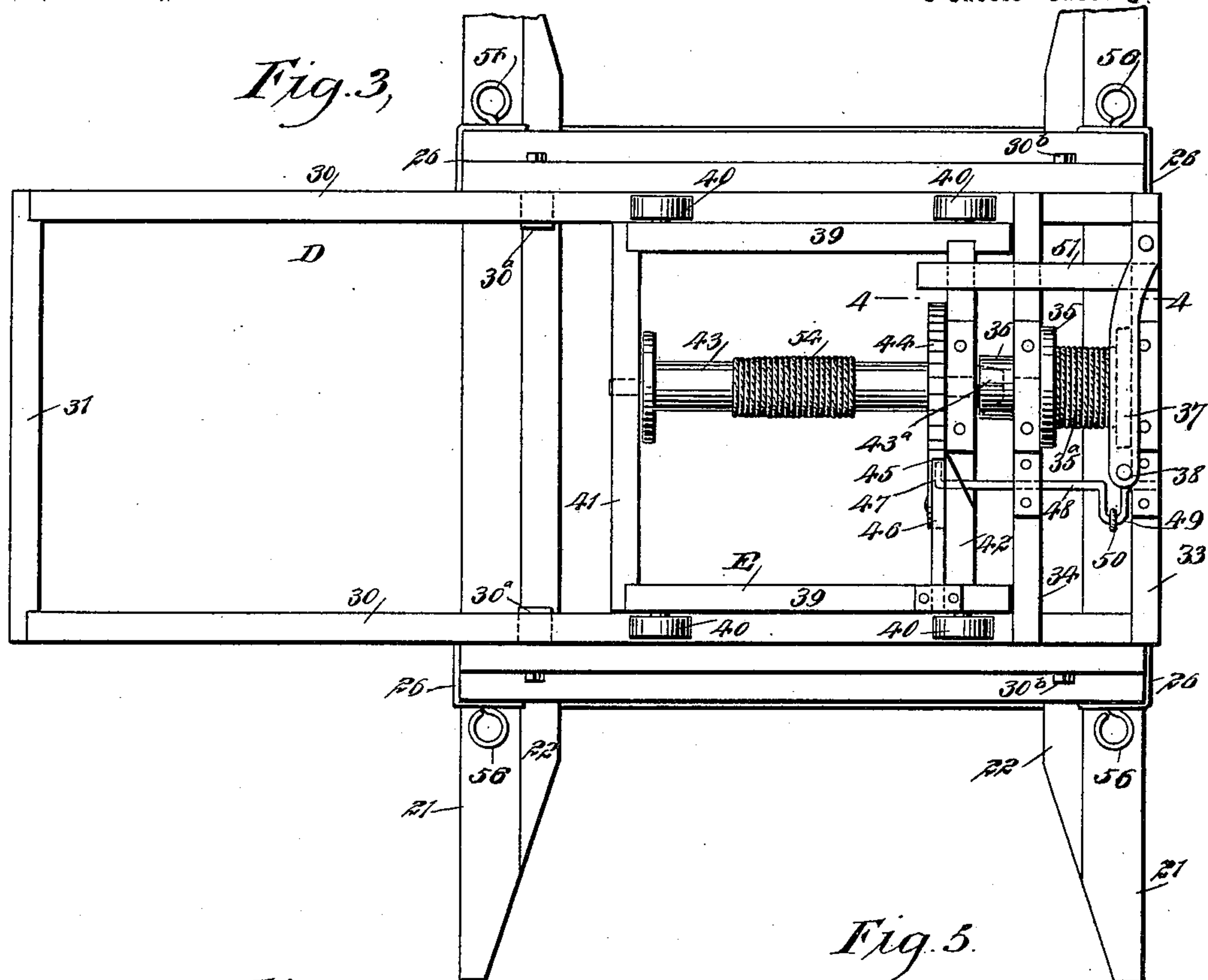
**J. WESTOVER.**

**BOX FOR CEREALS AND MEANS FOR HANDLING SAME.**

(Application filed May 31, 1899.)

(No Model.)

**3 Sheets—Sheet 3**



**WITNESSES:**

Edward Thorpe  
Pedro

INVENTOR

INVENTOR  
John Westover  
BY   
Manny  
ATTORNEYS.

**ATTORNEYS**



# UNITED STATES PATENT OFFICE.

JOHN WESTOVER, OF DAVID CITY, NEBRASKA.

## BOX FOR CEREALS AND MEANS FOR HANDLING SAME.

SPECIFICATION forming part of Letters Patent No. 635,626, dated October 24, 1899.

Application filed May 31, 1899. Serial No. 718,847. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WESTOVER, of David City, in the county of Butler and State of Nebraska, have invented new and useful Improvements in Boxes for Cereals and Means for Handling the Same, of which the following is a full, clear, and exact description.

The object of the invention is to provide boxes or packages adapted to receive corn in the ear or grain of any description, the said boxes or packages being also adapted to fit conveniently into a wagon-body.

A further object of the invention is to provide each package or box with a dumping-bottom.

Another object is to provide a hoisting mechanism so constructed that it may be connected with any one of the improved boxes or packages and manipulated to raise the same to a given height and conduct the raised box or package to such position that the contents of the box or package may be dumped into a granary, corn-crib, or other form of receptacle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the 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 a side elevation of the improved device. Fig. 2 is a rear elevation of the device. Fig. 3 is a plan view. Fig. 4 is a vertical section taken practically on the line 4 4 of Fig. 3, and Fig. 5 is a vertical section through one of the improved boxes or packages adapted to receive the cereals.

The boxes or packages A are usually made square, and any desired material may be employed. The top portion of the box or package is open, while the bottom 10 is a drop-bottom having a hinged connection with a side of the body of the box. The said drop-bottom 10 at the edge opposite that at which its hinge is placed is provided with a batten 11, and at the central portion of the same edge a slot 12 is formed, that extends under the batten 11, as shown in Fig. 5.

A casing 13 is centrally formed in the interior of the box, and the said casing is adapted

to be engaged by the batten 11 of the drop-bottom when said bottom is closed. A latch 14 is located within the casing 13, being pivoted between its ends by a suitable pin 15, and the upper end 16 of the latch is bent at a right angle to the body and extends out through an opening made in the side of the box to which the casing 13 is secured. A head 17 is formed at the lower end of the latch-body 14, and this head is adapted to have movement in the slot 12 and to engage with that portion of the batten 11 of the drop-bottom that crosses the slot for the purpose of holding the bottom closed. The latch is held in this latter position by means of a suitable spring 18, all of which is clearly illustrated in Fig. 5.

Loops or ears 19 are formed at the upper edge of each box or package A, and said loops 19 are preferably attached to the side of the box or package at which the latch 14 is located and to its opposing side, as is likewise shown in Fig. 5. These boxes or packages A are adapted to fit snugly in a wagon-body B of any approved description. Any desired number of boxes A may be placed in a wagon-body, but usually the boxes are of such size that three of them will fill the body of the wagon, as illustrated in Fig. 2.

A hoisting apparatus is employed in connection with the boxes A, and the body of the apparatus consists of a main frame C and a sliding frame C'. The main frame consists of a bottom 20, to which side pieces 21 are secured, the side pieces, for convenience in transportation, being made to carry wheels 21<sup>a</sup>. Fenders 22 are preferably attached to the inner faces of the side pieces 21, as illustrated in Fig. 1.

In the further construction of the main frame two standards 23 extend upward from each side piece 21, and corresponding standards carried by the side pieces are connected at the top by cross-bars 24, provided with suitable braces 25. Sleeves 26 are secured to the uprights or standards 23, the sleeves being made to extend beyond the inner faces of said uprights or standards. These sleeves are located at the upper portions of the uprights or standards 23, as shown best in Fig. 2. The inner free portions of the sleeves are adapted to receive the uprights 27 of the sliding frame C and serve to guide said uprights, and these



uprights 27, that are four in number, one corresponding to each upright 23 of the main frame, are respectively provided at their lower ends with an outwardly-extending sleeve 26<sup>a</sup>, that loosely receives the uprights or standards 23 of the main frame, as is also best shown in Fig. 2. The forward and rear uprights of the sliding frame are connected at the top by cross-bars 28, secured thereto in any suitable or approved manner, and the front and rear uprights or standards of the sliding frame are connected by horizontal or diagonal braces 29 and 29<sup>a</sup>. (Also shown in Fig. 2.)

The sliding frame C' is adapted to carry a track D, which track when in position on the sliding frame extends some distance beyond both the sliding and main frames of the structure, as is shown in Figs. 1 and 3. This track consists of two parallel rails 30, connected at the front by a cross-bar 31, provided with a depending buffer 32 at its center and a rear cross-bar 33, while a second cross-bar 34 extends from rail to rail near the rear-end cross-bar 33. Both of the cross-bars 33 and 34 extend above the tread portions of the rails. The rails are made to rest in brackets 30<sup>a</sup>, secured upon the inner faces of the cross-bars 28 of the sliding frame C', and two or more bolts 30<sup>b</sup> are employed to connect said rails with said cross-bars 28 near the rear ends of the latter. This construction or a similar one is adopted in order that the track and parts carried thereby may be dropped downward, as shown in dotted lines in Fig. 1, within the frames of the structure and the upper ends of the track be practically flush with the upper end of the sliding frame. This is accomplished by removing the bolts 30<sup>b</sup> and providing suitable ropes and pulleys for guiding the tracks to the lower position above mentioned, and which ropes and pulleys may likewise be used for restoring the track to its normal horizontal position. These ropes and pulleys have not been shown, as any suitable arrangement may be provided.

A windlass 35 is journaled in suitable bearings upon the rear cross-bar 33 of the track and the intermediate cross-bar 34. Said windlass is provided with a polygonal socket 36, that extends beyond the inner face of the intermediate cross-bar 34, as shown in Fig. 3. A rope 35<sup>a</sup> is attached to this windlass, and the rope is carried downward, as shown in Fig. 2, over a pulley 35<sup>b</sup>, attached to the base, and outward for attachment to a team. The socket 36 of the windlass 35 is adapted for connection with a drum on a hoisting-truck E. A brake 37, preferably a friction-brake, is provided for the windlass, and this brake may be applied at any time through the medium of a rope 38, attached to the free end of the brake and led downward at one side of the structure.

The truck E, above referred to, is adapted to travel on the track D. The frame of the truck consists of two side pieces 39, carrying

wheels 40, arranged for engagement with the tread of the rails of the track, a front bar 41, and a rear bar 42. A drum 43 is journaled in the front and rear bars of the truck. One trunnion of the drum 43 extends through the rear end bar 42 of the truck and is provided with a polygonal section 43<sup>a</sup>, adapted to enter and to fit into the socket 36 on the windlass, as shown in Fig. 3. A ratchet-wheel 44 is secured upon the windlass adjacent to the rear end bar 42, and the teeth of the ratchet-wheel 44 are engaged by a pawl 45, which is held in such engagement by a spring 46; but the pawl may be lifted from engagement with the ratchet-wheel 44 at any time, since the curved arm 47 of a shaft 48 normally extends beneath said pawl 45, as shown in Fig. 3, and the shaft 48 is journaled in the cross-bars 33 and 34 of the truck. The said shaft 48 is provided near its outer end with a crank-arm 49, and a rope 50 is attached to the crank-arm, which rope extends down at one side of the structure, and by pulling down upon said rope 50 the pawl 45 may be disengaged from said ratchet-wheel 44. The truck is held at the rear end of the track, or so that the rear end of the drum 43 is within the socket 36 of the windlass 35, through the medium of a spring-latch 51, (shown best in Fig. 4,) which latch is arranged for locking engagement with the rear cross-bar 42 of the truck. A lever 52 is pivoted below said latch, as is also shown in Fig. 4, and a rope 53 is attached to said lever and led down at one side of the structure. Upon pulling down upon said rope 53 the latch will be carried out of engagement with the truck and the truck may be made to travel to a projecting forward portion of the track D.

Two ropes 54 are attached to the windlass 35 and drum 43, and these ropes 54 are provided with hooks 55 at their lower ends, adapted to enter the loops or staples 19, carried by the boxes or packages A. The sliding frame C' is held in adjusted position by means of set-screws 56, that are preferably provided with eye-heads, so that a rod 57 may be passed through said heads, said rod being provided with a crank or hook 58 at its upper end, and this rod is employed in the operation of the truck, the rod occupying the said position in the heads of the set-screws 56 when not in use, at which time the lower end of the rod will enter an opening in one of the side pieces 21 of the base portion of the main frame.

In operation the empty boxes or packages A are placed in the body B of the vehicle. The vehicle is then taken to the threshing-machine or corn-field and filled, and the vehicle is afterward driven on the platform 20 of the elevating mechanism, and the rope 50 is drawn down upon to carry the pawl 45 from the ratchet-wheel 44, the truck having been locked to the track by the latch 51. The hooks of the hoist-ropes 54 are then engaged by the hook on the rod 57, and the hoist-ropes may be readily drawn downward. As



these hoist-ropes are drawn downward the drum 43 will be turned in a direction to wind up the windlass-rope 35<sup>a</sup> upon the windlass 35. The hooks 55 of the hoist-ropes 54 are then made to engage with the staples 19 on one of the boxes, and the pawl 45 is again permitted to engage with the ratchet-wheel 44 of the drum 43. The team is then attached to the windlass-rope 35<sup>a</sup> and is driven away from the structure, whereupon the windlass-rope is unwound from the windlass, and owing to the connection between the windlass and drum 43 the hoist-ropes 54 will be wound upon said drum and the box A will be carried up to a position immediately below the track D. The rope 53, attached to the lever 52, is now pulled downward, thus carrying the latch 51 out of engagement with the truck, and the truck, with its suspended box, is pushed by means of the rod 57 to the overhanging portion of the track D, as shown in dotted lines in Fig. 1. When the truck reaches the forward end of the said track D, the projecting head 16 of the latch 14 of the box will be pressed inward, thus releasing the head of the latch from engagement with the bottom 10 of the box and permitting the contents of the box to drop out. The truck is then carried back to locking engagement with the lever 52, and consequently the drum 43 will be brought in locking engagement with the windlass 35. When through the medium of the rod 57 the empty box is drawn downward, the rotation of the drum 43 will wind up the windlass-rope upon the windlass.

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

1. The combination, with a box provided with means for attachment to a hoist-rope, a drop-bottom, an incased spring-controlled latch arranged normally for locking engagement with the drop-bottom, and an extension from the latch which is carried through and beyond the outside of the box, of winding mechanism having a stationary support, a traveling hoisting device operated by said winding mechanism, means for connecting the box with said hoisting device, and a separable connection between the winding mechanism and hoisting device, means for breaking the said connection, and a trip for the latch of the said box.

2. In devices of the character described, a box provided with means for attachment to a hoist-rope, a drop-bottom, an incased spring-controlled latch arranged normally for lock-

ing engagement with the drop-bottom, and an extension from the latch, which is carried through and beyond the outside of the box, for the purpose specified.

3. In devices of the character described, the combination, with a structure provided with a track having a buffer-surface, a truck held to travel upon said track, a hoisting-drum carried by said truck, a windlass located upon the track, having detachable engagement with said drum, and means for locking the drum connected with said windlass, of a box provided with a drop-bottom and means for connection with hoist-ropes carried by said drum, said box being provided with a locking-latch a member of which extends outward from the box, the outer portion of the latch being adapted for engagement with the buffer of the track, for the purpose set forth.

4. The combination, with a frame, a winding-drum carried by the frame, a track supported by the said frame, a truck mounted to travel upon the said track, a hoisting device carried by the truck and arranged for interlocking engagement with the said winding-drum, whereby the hoisting device is operated from the said drum, and a buffer carried by the said track, of a box adapted to contain material, said box being provided with a drop-bottom and means for connection with the hoisting device of the truck, a latch normally in locking engagement with the drop-bottom, said latch being provided with a member that extends through the box, which member is adapted to be engaged by the buffer carried by the said track, a locking device arranged to hold the hoisting mechanism in connection with the winding-drum, a release for the said locking device, and means for controlling the drum and the said winding mechanism, for the purpose set forth.

5. In a device for manipulating cereals, a frame, an elevated track supported by said frame, means for mounting said track whereby it may be raised or lowered, a buffer pendant from the said track, a winding-drum having its support upon said track, a brake for the drum, a truck mounted to travel on the track, a hoisting mechanism carried by said truck and operated from the said drum, and means for controlling the drum and hoisting mechanism from a point below the track, as specified.

JOHN WESTOVER.

Witnesses:

A. L. HUGHES,

J. F. ALBIN.