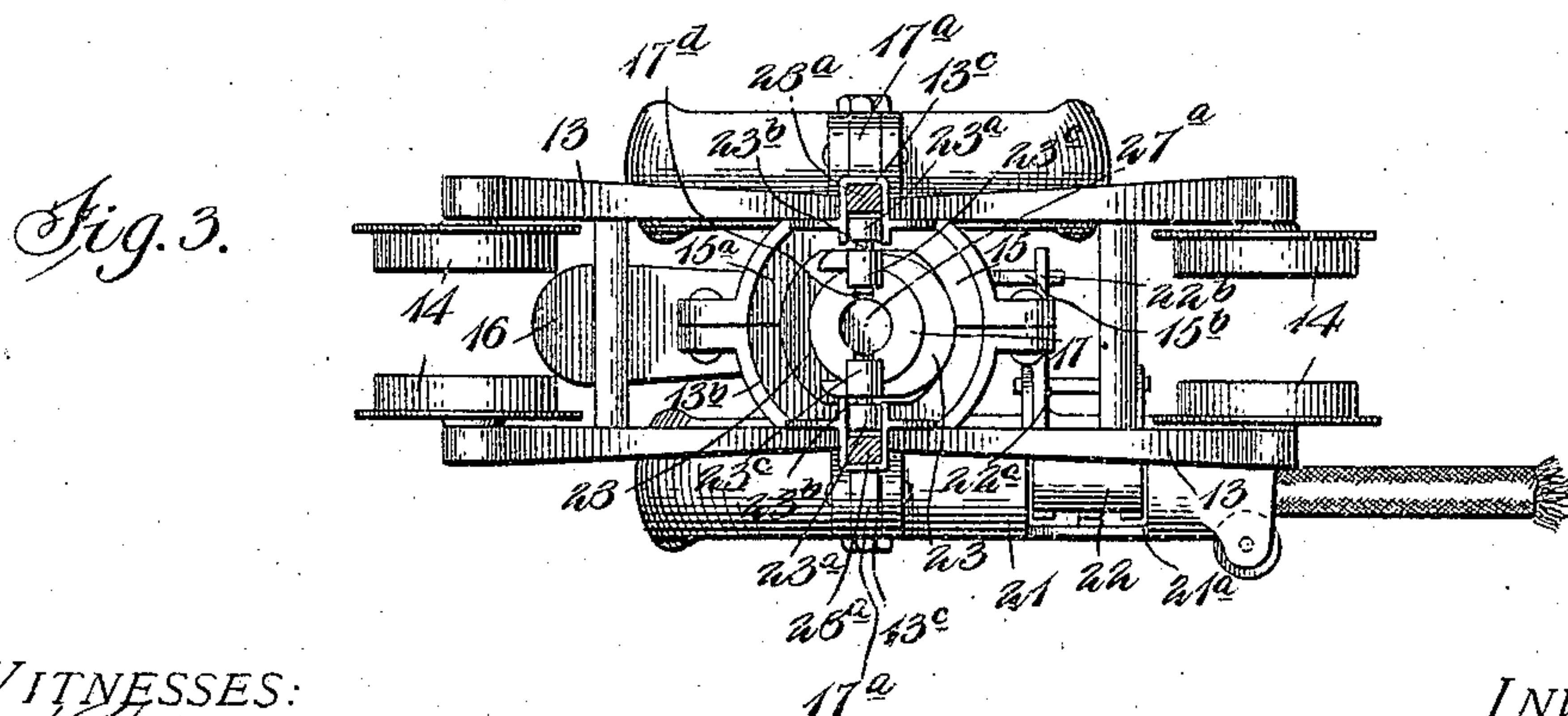
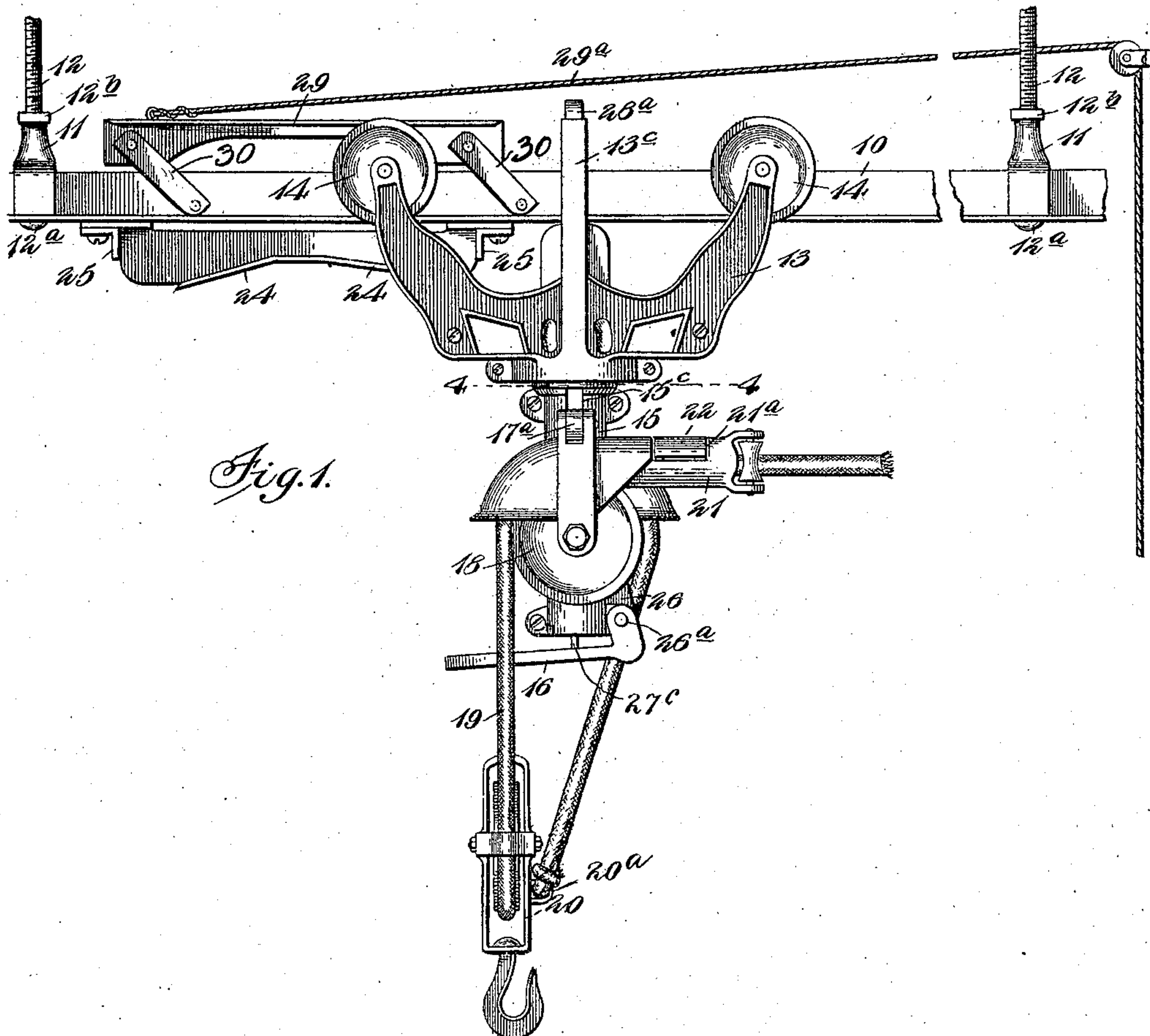


No. 847,511.

PATENTED MAR. 19, 1907.

F. E. SACKETT.
ELEVATED CARRIER.
APPLICATION FILED APR. 17, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

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Geo. E. Tew

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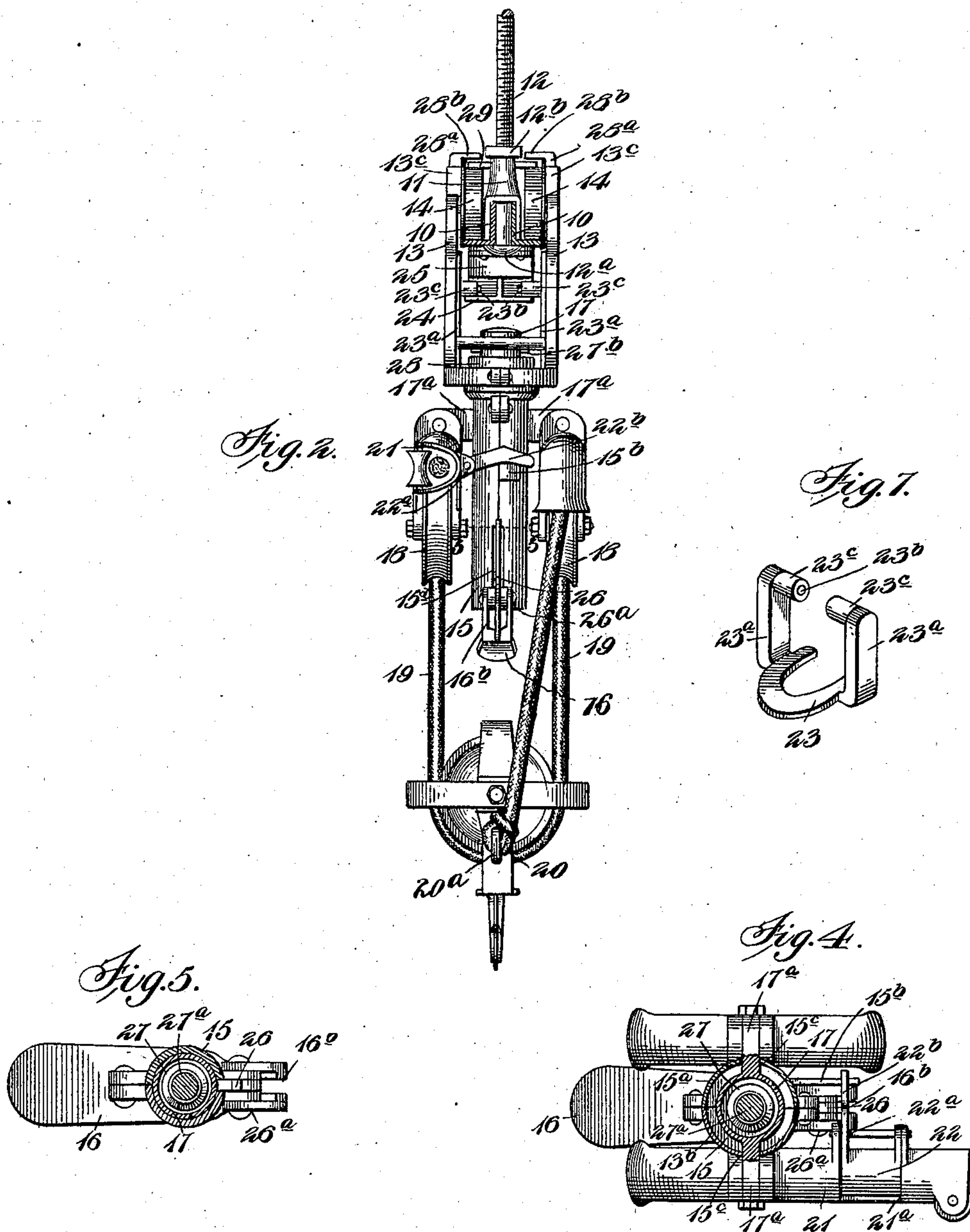
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3 SHEETS—SHEET 3.

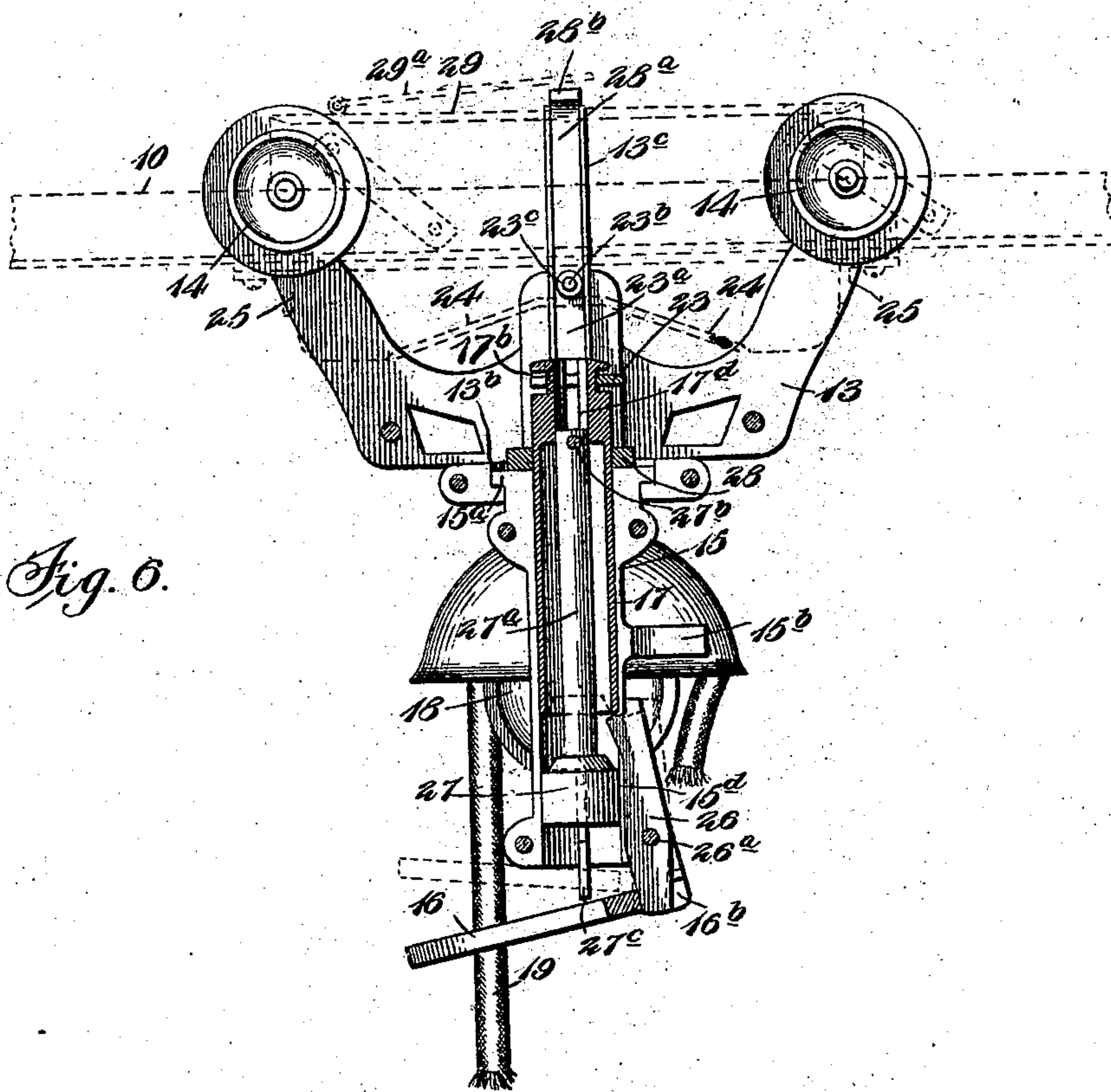


Fig. 6.

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UNITED STATES PATENT OFFICE.

FREDERICK E. SACKETT, OF HARVEY, ILLINOIS.

ELEVATED CARRIER.

No. 847,511.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed April 17, 1906. Serial No. 312,204.

To all whom it may concern:

Be it known that I, FREDERICK E. SACKETT, a citizen of the United States, residing at Harvey, in the county of Cook and State of Illinois, have invented new and useful Improvements in Elevated Carriers, of which the following is a specification.

This invention relates to elevated carriers particularly adapted for loading and unloading and embodying a horizontal track, a carriage which runs thereon, a fall-rope and swiveling pulleys mounted upon the carriage, together with devices for stopping the carriage and releasing the rope to lower the running-block or raise the load or allow the carriage to be pulled along the track.

The invention has particular reference to the rope-catch and the means for operating the same. In addition to the usual catch which operates when the load reaches its highest point means are provided for operating the catch when the load is at any intermediate point, so that the load does not have to be hoisted to the highest point at every operation.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the apparatus. Fig. 2 is a similar elevation at a right angle to Fig. 1, showing also the track in section and the means for supporting the track. Fig. 3 is a top plan view. Figs. 4 and 5 are details in horizontal section on the lines 4-4 of Fig. 1 and 5-5 of Fig. 2. Fig. 6 is a central vertical section. Fig. 7 is a detail in perspective, showing a part of the devices for operating the catch.

Referring specifically to the drawings, the track consists of a pair of angle or L-shaped rails 10, arranged side by side and parallel and held in proper position by a forked clamp 11, between the branches of which the vertical flanges of the rails are embraced. This clamp has a hollow shank and is provided with a bolt 12, extending vertically through the same. The head 12^a of the bolt engages the under side of the rails and supports the same, and the nut 12^b on the bolt above the clamp holds the parts together. The upper ends of the bolts 12 may be extended through the cross-beams of the roof or other part of the building in which the track is located.

The carriage-frame is indicated at 13, provided with wheels 14, which roll upon the track. The carrier supports a swiveling bar-

rel 15, which sustains the load, the barrel having at the top a circular flange 15^a, which is set in a rabbet 13^b, formed in the base of the carriage, around a circular opening in said base through which the barrel depends. The barrel is preferably made in halves bolted together, as shown; but, if desired, it can be made in one piece. Projecting from the barrel, at one side thereof, is an arm 15^b, which operates the dog which catches the rope, as hereinafter described. Pivoted to the bottom of the barrel in such manner as to hang substantially horizontally thereunder is a strike-lever 16, which operates to release the rope-catch, as hereinafter described.

Fitting within the barrel and slidable to a limited extent up and down therein is a tube or sleeve 17, which has laterally-extending arms 17^a, which project through slots 15^c in opposite sides of the barrel, and to the outer ends of these arms are connected the frames of the sheaves 18, over which runs the fall-rope 19, the loop of which carries the running-block 20. One end of the fall-rope is made fast to a ring 20^a on the side of the running-block. One sheave-frame has a laterally-extending guide-tube 21, through which the rope 19 extends at its free or running end, and this tube has an opening 21^a in the top, through which works the dog 22, which is pivoted at 22^a to lugs on the side of the tube and the tail 22^b of which rests upon the arm 15^b, which, as said before, projects horizontally from the barrel 15. It will be seen that in consequence of this construction relative vertical movement of the tube or sleeve 17 within the barrel 15 will cause the dog to grip or release the rope, according to whether the tube is moved up or down. In other words, when the tube 17 is raised the dog is also lifted and its tail, resting on the arm 15^b, drops, so that its head lifts from engagement with the rope, thereby releasing the latter. When the tube 17 is lowered with respect to the barrel, the tail 22^b of the dog striking the arm 15^b throws the head of the dog down to engagement with the rope, thereby catching and holding the same. To effect this up-and-down motion of the tube or sleeve 17, several different means are provided. One means consists of a yoke-frame 23, which fits in a circumferential groove 17^b at the top or head of the tube 17, and this frame has upwardly-projecting arms 23^a, provided with inwardly-extending pins 23^b, on which are rollers 23^c, which are arranged to strike and ride up the

inclines 24 of a device secured to the under side of the track, said device having also stops 25 to arrest the run of the carriage along the track. When the rollers run up the incline, the effect is to lift the tube with respect to the barrel, and thereby release the catch, so that the running-block 20 will fall.

When the tube within the barrel is lifted with respect to the barrel, it is normally engaged by a latch 26, which is pivoted to the barrel at 26^a and works through a slot 15^d in the side of the barrel and engages at its upper end under the lower end of the tube or sleeve 17. The lower end of the catch projects into a slot 16^b at the heel of the lever 16, the weight of which bearing against the latch causes the same to fall in and engage the lower end of the tube as soon as it is moved upwardly past said latch, and said latch holds the tube in raised position, and consequently the rope-catch in released position, until the latch 26 is disengaged from the lower end of the tube and said tube allowed to drop. This disengagement may be effected in either of two ways, one being automatic with the lift of the running-block to the highest point and the other being capable of operation otherwise, as when the running-block is in the lower or intermediate position. Either way the operation is effected through a plug or round block 27, which fits within the barrel 15 below the tube 17. This plug is connected to a rod 27^a, which extends vertically through the tube 17 and at the top has a cross-pin 27^b, which extends through slots 17^d in the sides of the tube 17 at the top thereof. At its lower end the plug 27 has a downwardly-extending piece 27^c, which rests upon the strike-lever or trigger 16.

As shown above, when the tube 17 is in raised position the rope-catch 22 is released and the rope is free to run, the tube 17 being held in raised position by the latch 26. If and when the rope is pulled to raise the load until the running-block 20 strikes the trigger 16, the consequent lift or upward movement of the trigger forces up the plug 27, which, striking the head of the latch 26, forces said head outwardly, and this disengages the same from the lower end of the tube 17, and since said tube sustains the weight of the load in consequence of the sheaves 18, carried thereby, the immediate effect is to drop the tube in the barrel, thereby throwing the rope-catch 22 down upon the rope and binding the same. The same drop of the tube 17 carries with it the yoke-frame 23, bringing the rollers 23^c to the low position, where they will pass under the stops 25, and thus allow the carriage by continued pull on the fall-rope to be drawn along the track. It should be explained that when the tube 17 is in raised position the rollers 23^c will not pass the stops 25, whereby the carriage is locked against movement along the track.

It is frequently unnecessary to hoist the load to the top of the building before being carried along the track, and it is therefore desirable that means be provided for disengaging the latch 26 and allowing the tube 17 to drop and the rope to be caught before the load is hoisted to the limit, and such means are provided as follows: 28 indicates a ring which extends around the upper end of the tube 17 above the top of the barrel 15 and below the cross-pin 27^b, which, as stated, is connected to the rod 27^a. This ring has upwardly-projecting arms 28^a, which slide in vertical guides 13^c, formed in the sides of the carriage. The arms project upwardly beyond the track and at their upper ends have inwardly-extending projections 28^b, which overhang the track, or rather overhang a plate 29, which is located above the track and supported by means of pivoted links 30. The links allow the plate 29 to be shifted or moved up and down, the upward movement being effected by a rope 29^a, which may pass over suitable guide-pulleys to any point convenient for the operator.

The plate 29 normally drops by its own weight to inoperative position; but the carriage being locked at the stop pull on the rope 29^a causes the plate 29 to lift or swing up and to strike and lift the projections 28^b, thereby lifting the ring 28, and with it the rod 27^a and plug 27, thereby throwing the latch 26 out of engagement with the tube 17, which in consequence of the weight of the load and a quick release of the rope 29^a causes the tube 17 to drop down below the latch 26, thereby setting the rope-catch, so that the load is held, and releasing the stop devices, so that the carriage may be pulled along the track. When the stop and incline at the end of the track is reached, the rollers 23^c ride up the incline and lift the tube and release the rope-catch, thereby allowing the rope to lower, and at the same time the latch 26, engaging under the end of the tube, holds the same in raised position, so that the carriage is locked against movement along the track until the latch is released in one or the other of the ways heretofore described.

I claim—

1. The combination with an elevated track, of a carrier thereon having a rope-catch, a stop on the track, automatic means at the stop to operate the catch, and independent means at the stop to operate the catch, adapted for manual operation, comprising a plate supported on swinging links above the track and devices connected to the catch and engageable by the plate to operate the former.

2. In an elevated carrier, in combination, a carriage, a swiveling barrel carried thereby, a member slidable to a limited extent up and down in the barrel, a sheave supported on the member, a hoisting and hauling rope

which runs over the sheave, a rope-catch on the sheave-frame actuated by the relative movement of the barrel and member to hold or release the rope, a latch mounted on the barrel and engageable with the member to hold the same in raised position, with the rope released, and means to release the latch, and allow the member to fall, to engage the rope-catch with the rope, comprising a block slidable up and down in the barrel and arranged to strike the latch, and means to raise or lower the block.

3. In an elevated carrier, in combination, a carriage, a swiveling barrel mounted therein, and having slots in its side and a laterally-projecting arm, a tube movable up and down in the barrel and having lateral arms extending through the slots, sheave-frames hung upon said arms, a fall-rope which runs over the sheaves, a rope-catch pivoted upon a sheave-frame, the head of which engages the rope and the tail of which rests upon the arm which projects from the barrel, means to raise or lower the tube with respect to the barrel, to engage or disengage the catch, a latch pivoted to the lower end of the barrel and which works through the side of the barrel to engage under the lower end of said tube

when it is raised, and means to release the latch comprising a block under the end of said tube, within the barrel, a lever pivoted at the lower end of the barrel and extending thereunder and arranged to be struck by the running-sheave to lift said block and release the latch, a rod extending upwardly through the tube, arms operatively connected to the rod and extending upwardly above the carriage, and means to pull said arms upwardly, to lift the block.

4. In an elevated carrier, the combination of the barrel and the tube movable up and down therein, the latch pivoted to the barrel and engaging under the lower end of the tube, to hold the same in raised position, a rope-catch operated by the relative movement of the barrel and tube, and means operated from either above or below the barrel and to operate the latch.

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

FREDERICK E. SACKETT.

Witnesses:

SIGNA FELTSKOG,
H. G. BATCHELOR.