

No. 886,763.

PATENTED MAY 5, 1908.

W. J. CHANCE.
ELEVATED CARRIER.
APPLICATION FILED JULY 15, 1907.

2 SHEETS—SHEET 1.

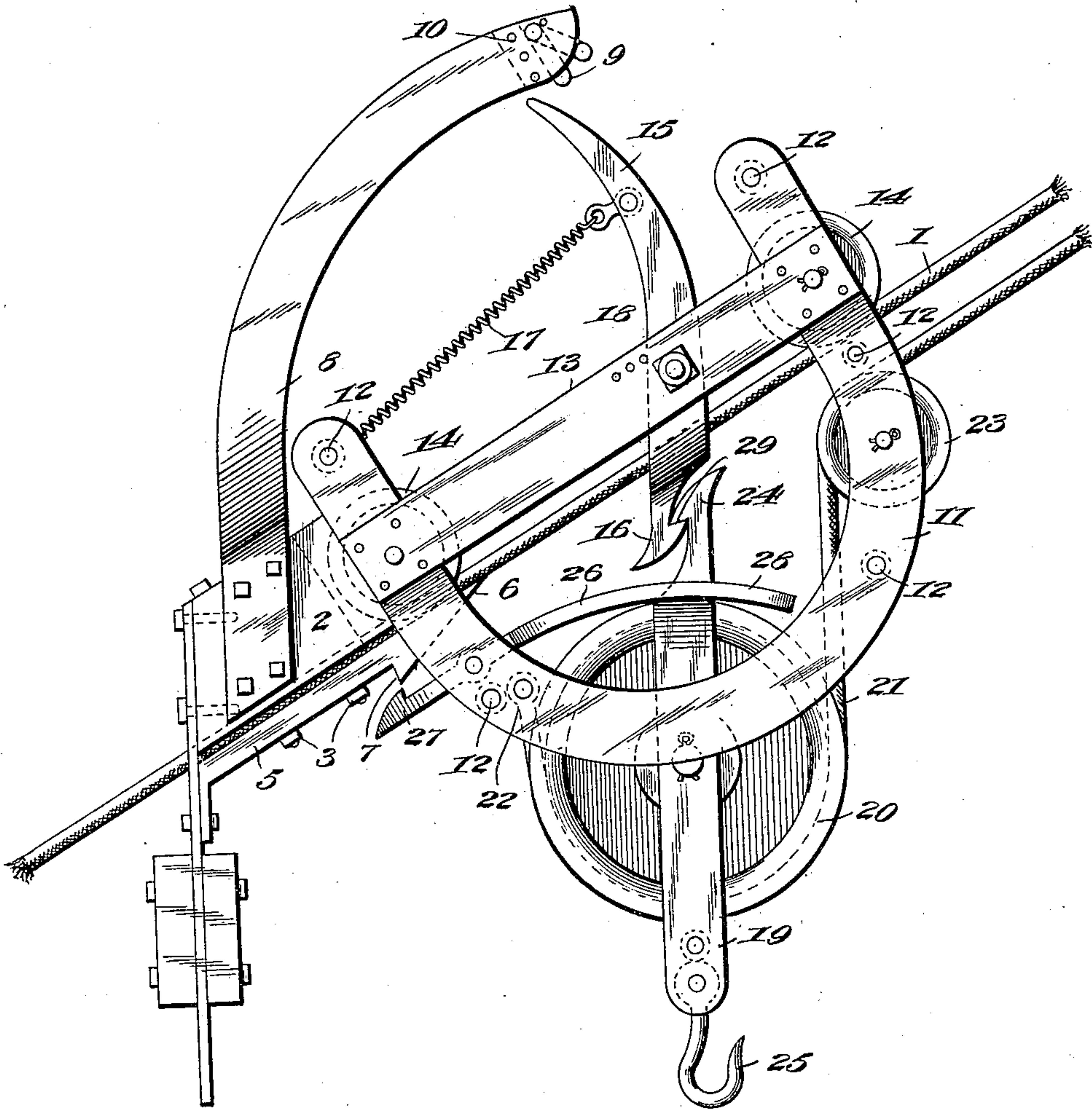


Fig. 1.

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Attorney

Witnesses

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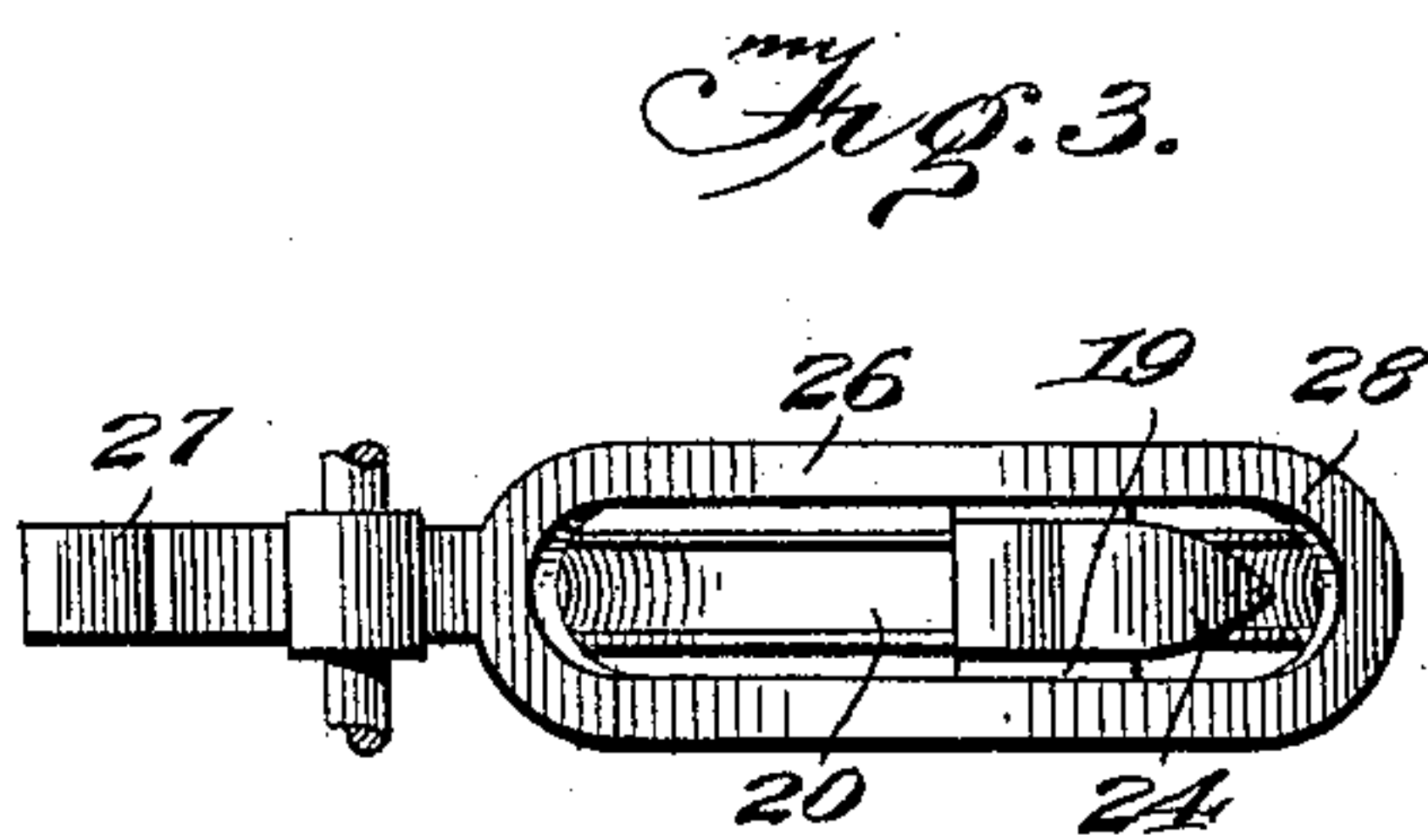
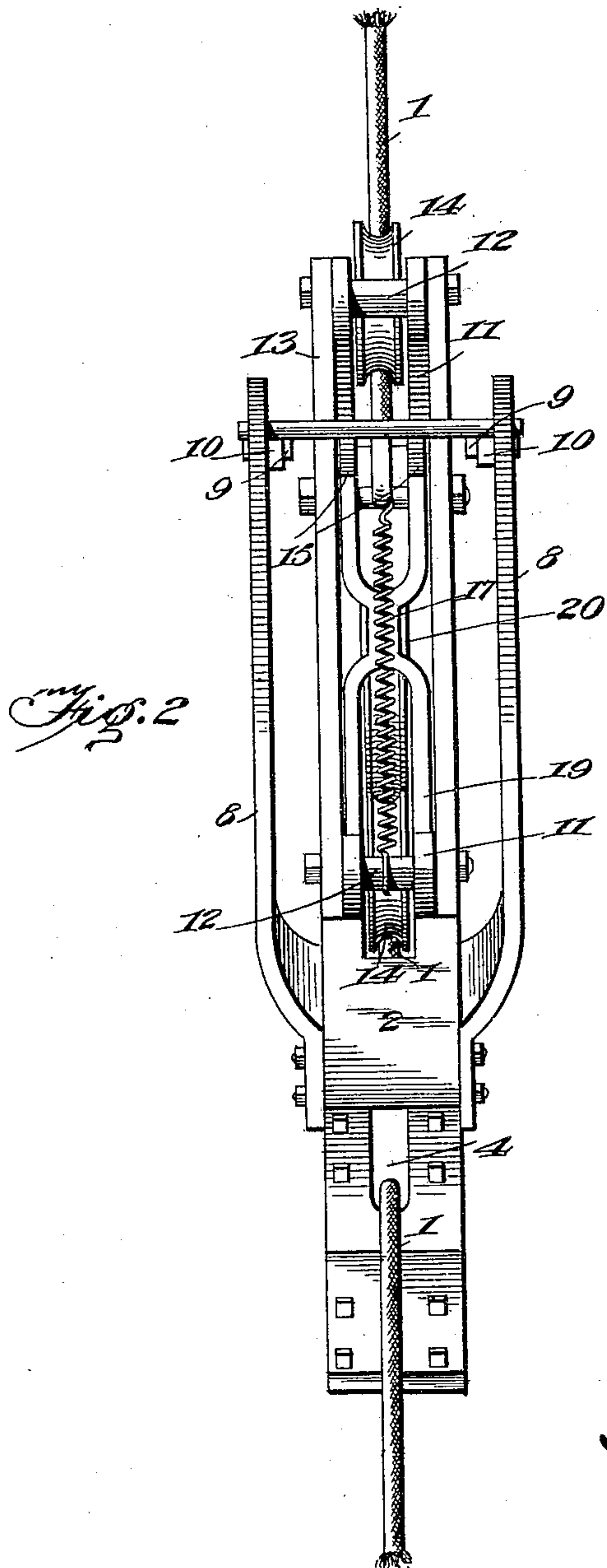
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Witnesses
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ELEVATED CARRIER.

No. 886,763.

Specification of Letters Patent.

Patented May 5, 1908.

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To all whom it may concern:

Be it known that I, WILLIAM JEFFERSON CHANCE, a citizen of the Dominion of Canada, residing at Dawson, in the Yukon Territory and Dominion of Canada, have invented certain new and useful Improvements in Elevated Carriers, of which the following is a specification.

My invention relates to improvements in elevated carriers, and has for its object, the provision of a combined hoist and carrier which will be automatic in its operation and which may be used for a great variety of purposes.

Another object of my invention is the provision of an automatic hoisting conveyer consisting of but few and simple parts which will be thoroughly effective in operation and practical in every particular.

With the above and other objects in view, my invention consists essentially of a trackway, a carrier adapted to travel thereon, hoisting mechanism, clutch mechanism for supporting the hoist mechanism in the carrier, and automatically operated clutch mechanism for securing the carrier stationary on the trackway.

The invention also consists of a conveyer system embodying certain other novel features of construction, combination and arrangement of parts substantially as disclosed herein and as illustrated in the accompanying drawings, in which:

Figure 1, is a side elevation of my invention with the parts in their normal or load-supporting position. Fig. 2, is a top plan view of the same. Fig. 3, is a detail view of the latch lever and the end of the supporting hook of the hoisting mechanism.

In the drawings: the numeral 1, designates the cable or trackway which according to the circumstances of the case may be placed at an incline as shown or may be in the shape of a level track. A stop block 2, is clamped upon the cable at the desired point of loading or unloading either by means of bolts 3, or other suitable fastenings, the said stop block or abutment having a depending weighted portion, which acts as a counter-balance to retain the block in the proper upright position. The upper or abutment face of the block is centrally recessed as at 4, for a purpose to be described, and to the lower forward side of the block is attached or formed integral therewith, the latch member 5, which is in the form of a downwardly sloping

way 6, terminating in a shoulder or hook portion 7. Rising from each side of the stop block are the forwardly directed supporting arms 8, and between the upper ends of these arms is pivoted the trip member 9, which is in the form of a swinging bar as shown, the bar being free to swing forward but limited as to its backward movement by the abutments or stops 10.

The carrier frame consists substantially of a pair of looped substantially U-shaped bars or members 11, which are united in spaced relation by spreader bolts 12. The open ends of the U-shaped members of the frame are connected by the cross brace or supporting bars 13, this construction forming a light, rigid and strong frame. Carrier wheels 14, are journaled in the ends of the frame which support the frame upon the cable or track. A trip lever 15, is journaled between the cross bars of the carrier frame, the lever being forked as shown in the detail view so as to permit the passage of the supporting cable therethrough, and this lever is further provided with a unitary hook portion 16, depending below the supporting cable to form a support for the hoisting mechanism of the carrier. A tension spring 17, connected between the upper forked ends of the trip lever and the rear end of the frame, serves to hold the lever normally in upright position, an abutment 18, being provided to limit the movement of the lever when acted upon by the spring.

The hoisting mechanism of the carrier consists of a sheave frame 19, in which is journaled the hoisting sheave 20, the fall rope or hoist 21, being anchored to the frame at 22, passing downward under the hoisting sheave and then up over the supporting sheave 23, which is journaled in the front end of the frame. The upper end of the sheave casing, frame or strap terminates in a hook 24, adapted to engage and interlock with the depending supporting hook on the trip lever, and the bucket or conveyer carrying the load is supported on the hook 25, depending from the lower end of the sheave frame.

In order to hold the carrier stationary while the load is being delivered or hoisted, a latch lever 26, is pivoted in the rear portion of the carrier frame, the forward end of said lever being provided with a clutch member or hook 27, to interlock with the stationary clutch member or hook carried by the stop

block. The rear or inner end of this latch lever is in the form of an open loop 28, through which the hook on the upper end of the sheave frame is adapted to pass, the shoulder 29, formed at the base of said hook engaging the looped end of the latch lever and serving to support the latch lever normally out of engagement with the stationary clutch on the stop block, as shown in Fig. 1.

10 The operation of the device is as follows: As the carrier descends on the supporting cable or track to the point where the load is to be delivered, the upper end of the trip lever is first contacted by the swinging trip lever supported from the bumper or stop block. This contact forces the upper end of the trip lever forward thereby releasing the supporting hook on said lever from engagement with the complementary hook on the sheave frame. By slacking the fall rope, the sheave frame is allowed to descend and deliver its load. As the sheave frame descends, the looped end of the latch lever is unsupported, the looped end of the lever thereby falls of its own weight, causing the latch to interlock with the stationary clutch on the stop block, and the carrier is thus locked stationary until the sheave frame is again hoisted to place. In passing upward on the cable, the trip lever simply raises the pivoted trip member and is not affected thereby. The rear end of the carrier frame is adapted to abut against the stop block as shown in Fig. 1, the stop block being centrally recessed as described to receive the rear carrier wheel and prevent injury to the same.

From the foregoing description taken in connection with the drawings, the operation and advantages of my improved carrier system will be readily understood and appreciated, and it will be evident that I have provided such a device which is practical and satisfactory in every particular.

I claim:

45 1. A carrier comprising a frame, an upstanding trip lever pivoted therein having a depending hook portion to provide a support, a looped latch lever pivoted in the frame, a sheave frame having an upwardly extending hook to pass through the looped latch lever and engage the supporting hook of the depending supporting trip lever, and means for releasing the trip lever from engagement with the sheave frame.

55 2. The combination with a carrier frame, of an upstanding trip lever pivoted therein having a depending supporting hook portion, a looped latch lever pivoted in the frame, a sheave frame having an upwardly extending

hook to pass through the looped latch lever 60 and engage the supporting hook on the trip lever, an abutment having a hook to be engaged by the latch lever, a support rising from the abutment and adapted to overhang the carrier, and a trip member pivoted in the overhanging support to contact the trip lever. 65

3. A U-shaped carrier frame and cross bars extending across the open ends of the frame, an upstanding trip lever pivoted between said cross bars, a spring tending to normally hold the trip lever in upright position, an abutment, a looped latch lever pivoted in the frame adapted to engage the abutment, a sheave frame adapted to interlock with the lower portion of the trip lever, a support rising from the abutment, and a trip member carried by said support to engage the trip lever. 70 75

4. A carrier comprising looped side members secured together in spaced relation, cross bars across the open ends of the side members, a supporting trip lever pivoted between the cross bars, a spring to hold the trip lever normally upright, a latch pivoted between the side members, and a sheave frame adapted to be supported by the trip lever and to engage the latch. 80 85

5. A carrier comprising looped side members secured together in spaced relation, cross bars across the open ends of the side members, a supporting trip lever pivoted between the cross bars and a spring to normally hold the trip lever upright, a latch pivoted between the side members, a sheave frame adapted to be supported by the trip lever, supporting wheels journaled in the frame, a pulley journaled in the frame, and a fall rope passed over said pulley and supporting the sheave frame. 90 95

6. A carrier comprising a frame and supporting wheels journaled therein, a trip lever pivoted in the frame having a depending supporting hook portion, a latch lever pivoted in the frame, an abutment carrying a latch member to be engaged by the latch, a sheave frame having an upstanding hook to engage the depending supporting hook on the trip lever, the sheave frame adapted to engage the latch and release it from engagement with the abutment latch member, and means for releasing the trip lever from engagement with the sheave frame. 100 105 110

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

WILLIAM JEFFERSON CHANCE.

Witnesses:

ETTA DE PENCIER,
FRED G. CRISP.