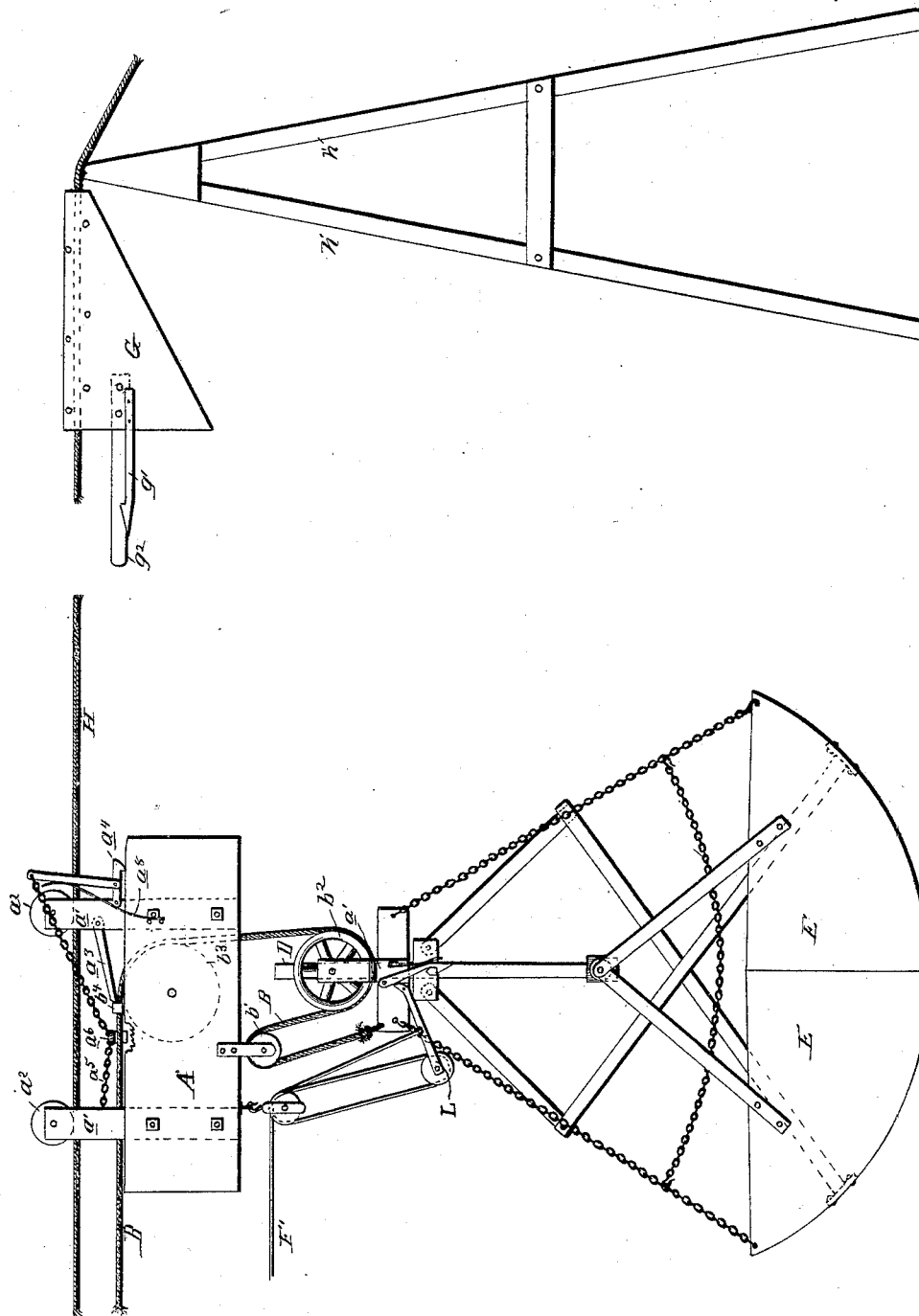


C. LARDNER.
ELEVATED CARRIER.

Patented Feb. 25, 1890.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES LARDNER, OF TOPEKA, KANSAS.

ELEVATED CARRIER.

SPECIFICATION forming part of Letters Patent No. 422,231, dated February 25, 1890.

Application filed January 16, 1889. Serial No. 296,472. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LARDNER, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Elevated Carriers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to elevated carriers, and has for its object to simplify and cheapen this class of devices and increase their efficiency.

The improvement consists in the novel and peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawing, in which is a side view of a carrier embodying my invention and showing its application.

The cable H, extending from on shore, where it is suitably supported to and far enough beyond the deposit to secure anchorage, is supported at either or both ends on inverted-V trees or trestles $h h'$, and has sufficient incline from them to propel the carrier from shore, where the dump-pile is, to the bar, where sand is to be removed from, it being pulled back up the incline loaded by means of the cable or fall-rope B.

In the drawing the carrier is shown as it appears when loaded and carried along the cable H, the load being dumped, and the carrier is loosened from its shore-moorings and descends by its own weight along the inclined cable, being supported by the pulleys $a^2 a^2$, fixed in the upright bearings $a' a'$, the fall-rope B and jerk-line F' being paid out freely until the carrier A arrives above the deposit where the carrier is to be loaded, or at the point where the end or stop block G is fixed to the cable. As the block A comes to this point the projecting dog g' passes under the dog a^4 , their two notches overlapping, and, being held in that position by the spring a^3 , act as a firm lock to hold the device securely at that point against the tendency to be drawn

shoreward, which would occur as soon as the power for loading was applied. The other straight bar or dog g^2 has meantime passed along on the block A and under the dog a^3 , lifting it free from the stop-button b^4 . The scoops E E, being released, descend by their own weight until they reach the deposit. The cable B has one end fixed to a corner of the carrier A, and, passing over the pulleys $b' b^2 b^3$, extends between the double upright bearing a' , and thence on to shore.

The results of a continued tension on cable B are as follows: The button or ball b^4 , fixed solid on the cable B, passes freely over the pulleys until it reaches the button a^6 , which has a hole through it large enough for the cable to pass freely back and forth, but will not allow the passage of the button b^4 ; hence when the button b^4 reaches the button a^6 it carries button a^6 with it in the direction of shore; but this button a^6 has attached to it the chain a^5 , which also is attached to the upright bar of the dog a^4 , and the movement of the button a^6 opens the locked position of the two dogs a^4 and g' , freeing the carrier from the stop-block G, and as the tension or pull on the cable B is toward shore, of course the carrier A, with the scoops, at once start shoreward. The weight of the load would tend to move the carrier A faster than the taking in of the cable, and hence drop the scoops; but this has been provided against by means of the dog a^3 and the button b^4 . This button b^4 , having before served the purpose of unloading the scoops from the stop-block so the carrier could be pulled ashore, now, by reason of the weight of the loaded dredge, starts to reverse its direction round the pulleys, which would carry the block A forward, but allow the dredge to descend. The dog a^3 is on guard, however, and the efforts of the button b^4 to pass over the pulley b^3 is promptly stopped, and the carrier with its load remains suspended at the position indicated in the drawing. The shelves or pulleys a^2 , passing freely along the cable H, as the cable B is drawn toward shore, the carrier A, with its loaded scoops, is carried along to the dumping place, where the operator unloads, as before described.

The carrier can be locked at any point along the line of the cable by fixing the end block

G at the point where it is desired to use the dredge.

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

1. The hereinbefore-described carrying apparatus, comprising the following elements in combination: the cable, the stop-block G, having the dog g' and the releasing-arm g^2 ,
10 the carrier A, mounted on the cable, the catch a^4 , the chain a^5 , having the stop a^6 , the pawl a^3 , the scoops, and the elevating and hauling rope B, having a stop b^4 , which is adapted to engage with stop a^6 to release catch a^4 , and
15 be engaged by pawl a^3 to support the scoops, substantially as set forth.

2. The combination, with the cable, the car-

rier mounted on the cable, and the stop-block having the dog g' and the releasing-arm g^2 , of the catch a^4 , the chain a^5 , having the stop a^6 , 20 the pawl a^3 , and the rope B, having the stop b^4 , substantially as and for the purpose described.

3. The combination, with the cable and the carrier mounted on the cable, of the stop-block having the dog g' , the catch a^4 , the 25 chain a^5 , having the stop a^6 , and the rope B, having the stop b^4 , substantially as described.

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

CHARLES LARDNER.

Witnesses:

J. W. MILLER,
JOHN H. DAVIES.