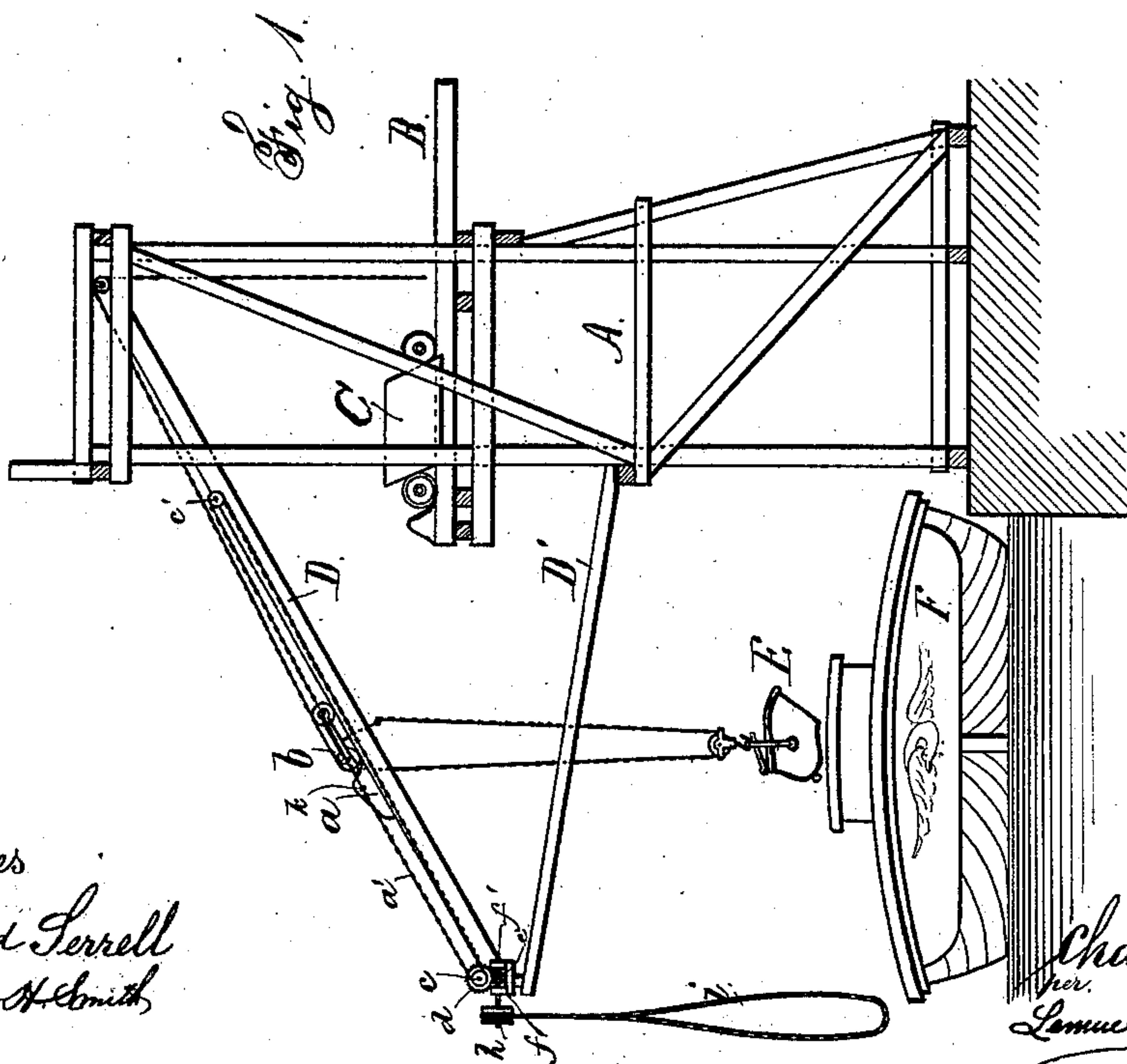
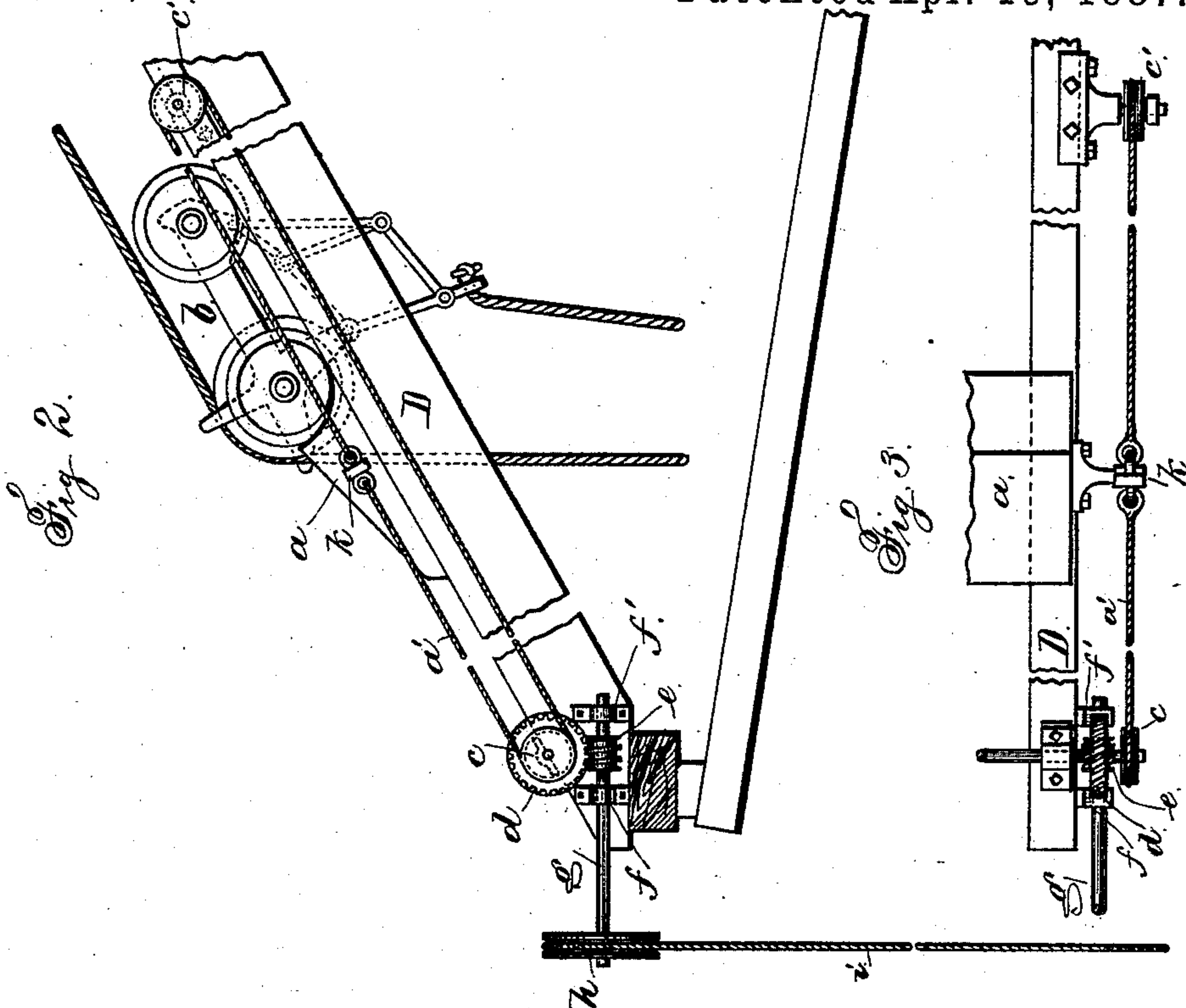


(No Model.)

C. W. HUNT.
HOISTING MACHINERY.

No. 361,418.

Patented Apr. 19, 1887.



Witnesses
Harold Serrell
Chas. H. Smith

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UNITED STATES PATENT OFFICE.

CHARLES W. HUNT, OF WEST NEW BRIGHTON, NEW YORK.

HOISTING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 361,418, dated April 19, 1887.

Application filed January 17, 1887. Serial No. 224,535. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HUNT, of West New Brighton, in the county of Richmond and State of New York, have invented
5 a new and useful Improvement in Hoisting Machinery, and the following is declared to be a description of the same.

In hoisting machinery such as heretofore employed by me, and described and shown in
10 Letters Patent Nos. 170,442 and 282,640, an elevator-frame and swinging boom and a traveling sheave truck for the bucket were employed, and also a chock-block to limit the downward travel of the sheave-truck, and this
15 chock-block was placed in position by an attendant going out upon the boom and moved by hand, as required; but a party at the place of loading or discharging could not control the place of descent of the bucket.

20 The object of my present invention is to shift the chock-block upon the boom from the deck of the boat or other place of discharge or loading of merchandise, and thereby control the place of descent of the bucket. I employ a
25 rope or chain connected to the chock-block, and said rope or chain passes around pulleys or wheels at the upper and lower ends of the inclined boom. The shaft of the lower wheel has upon it a worm-wheel, which engages a
30 worm-pinion upon a horizontal shaft in bearings upon the inclined boom. At the outer end of this horizontal shaft is a pulley or wheel, around which is an endless rope or chain depending to the vessel or place of discharge or
35 loading of merchandise, where an attendant can operate said rope or chain, and by the mechanism named shift the chock-block upon the inclined boom and regulate the place of descent of the bucket.

40 In the drawings, Figure 1 is an elevation of a hoisting mechanism to which my improvement is connected. Fig. 2 is an elevation of my improved mechanism in larger size, and Fig. 3 is a partial plan of the same.

45 A represents the elevator frame-work; B, the track; C, the car; D D', the inclined tracks or ways and booms; E, the coal-bucket, and F the boat. These parts are well known, and have been described in patents heretofore
50 granted to me, and they do not require further description.

The inclined tracks or ways D may be at any angle of inclination desired, or they may be horizontal.

The chock-block *a* is employed to stop the
55 sheave-truck *b* directly over the place where the bucket E with its load is to be raised or lowered, and said chock-block has heretofore been placed in position by an attendant and adjusted upon the booms as required from
60 time to time.

I employ the wheels *c c'*, mounted in bearings upon the booms or inclined ways D. Upon the shaft of the wheels *c* is a worm-wheel, *d*, and at right angles to the shaft of the wheels
65 *c* is a horizontal shaft, *g*, secured in bearings *f f'* upon the side of the inclined ways D at the lower end, and upon said shaft *g* is the worm *e*, meshing with the worm-wheel *d*, and upon the outer end of said shaft *g* is the pul-
70 ley or wheel *h*, carrying the endless rope or chain *i*, which reaches down to the deck of the boat F.

Upon the side of the chock-block *a* there is a fastening device—such as the arm or eye *k*—
75 and connected therewith and passing around the wheels *c c'* is the chain-rope *a'*.

The shaft of the wheel *c*, by preference, extends across the boom and receives a wheel on the other end, so that two endless chains may
80 be used one at each side of the chock-block and connected to the same, a second wheel, *c*, (not shown) being used.

The adjustment of the chock-block *a*, and the consequent regulation of the place of descent
85 of the bucket E where desired, is accomplished by an attendant upon the boat F drawing on the endless chain or rope *i*, and by the wheel *h*, shaft *g*, worm *e*, and worm-wheel *d*, moving the wheel *c c'*, and chain or rope *a'*, and so
90 drawing the chock-block up or down the inclined ways D, and these parts also serve to keep the chock-block in place.

My improved apparatus is specially useful
95 where two narrow boats lie side by side along side a wharf, as the chock-block can easily be moved to deliver to or from the second boat without disturbing the one nearest the wharf.

I claim as my invention—

1. In a hoisting apparatus, the combination, 100
with the inclined ways D, and the chock-block *a*, of the wheels *c c'*, chain or rope *a'*, worm-

wheel *d*, worm *e*, shaft *g*, wheel *h*, and endless rope or chain *i*, substantially as specified.

2. In a hoisting apparatus, the combination, with the inclined ways *D* and chock-block *a*,
5 of a rope or chain connected to the chock-block, and wheels around which said chain or rope passes, and mechanism, substantially as specified, for moving the wheels and chains to ad-

just the chock-blocks upon the inclined ways, substantially as set forth. to

Signed by me this 6th day of January, A.
D. 1887.

CHARLES W. HUNT.

Witnesses:

HAROLD SERRELL,

WILLIAM G. MOTT.