

(No Model.)

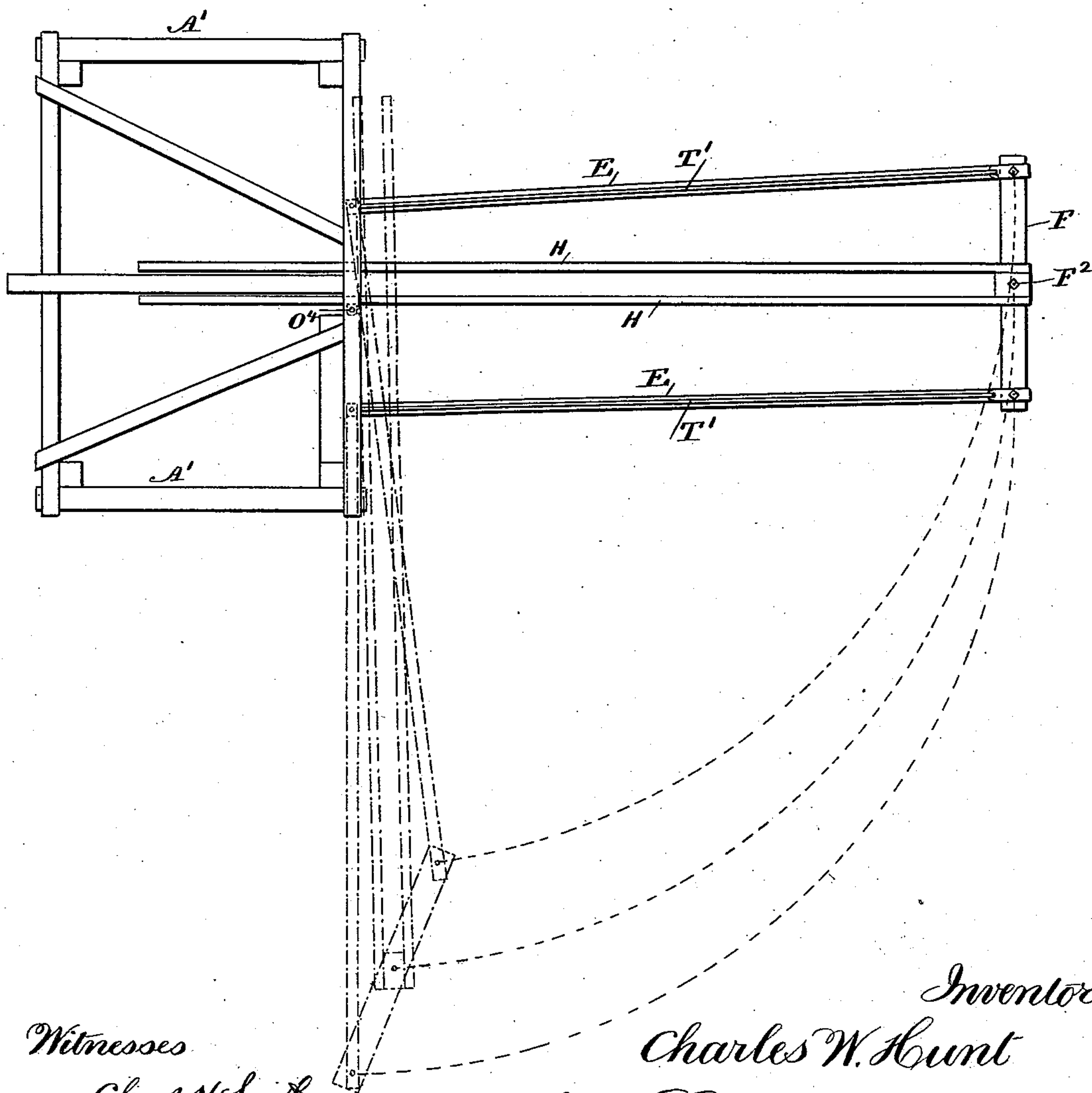
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C. W. HUNT.
HOISTING APPARATUS.

No. 351,445.

Patented Oct. 26, 1886.

Fig. 1.



Witnesses

Chas. H. Smith
W. L. Serrell

Inventor

Charles W. Hunt
per Lemuel W. Serrell

att'y

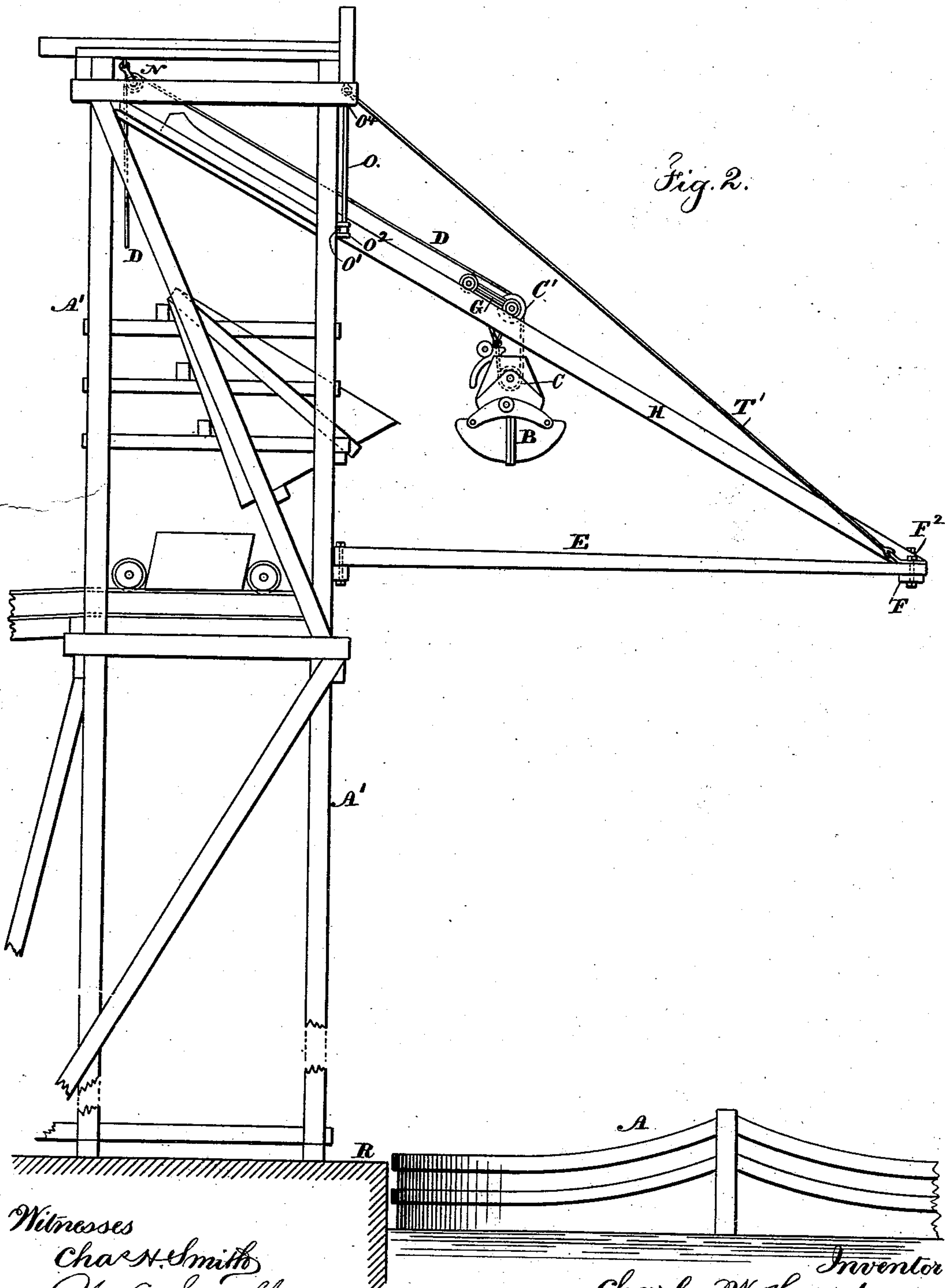
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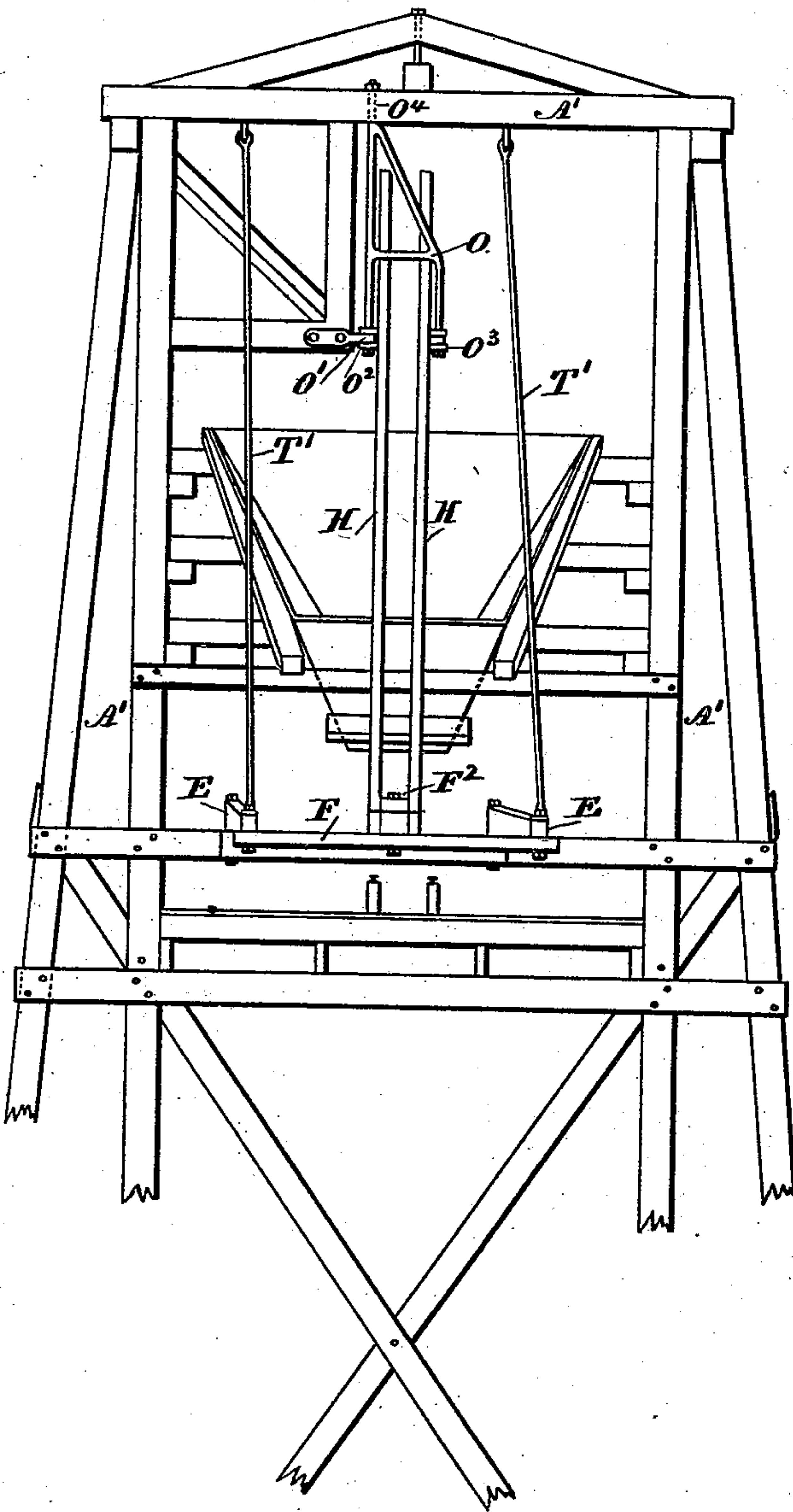
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Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES W. HUNT, OF WEST NEW BRIGHTON, ASSIGNOR TO THE C. W. HUNT COMPANY, OF NEW YORK, N. Y.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 351,445, dated October 26, 1886.

Application filed August 4, 1886. Serial No. 209,938. (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 an Improvement in Hoisting Apparatus, of which the following is a specification.

My present invention is an improvement upon that set forth in Letters Patent No. 170,442, granted to me November 30, 1875. In
10 that patent an inclined track is made use of, up which is drawn a truck and the bucket that is suspended therefrom, and the coal or other material is discharged from the bucket into a car.

15 My present invention does not relate to the track itself, nor to the hoisting devices; but it relates to an improvement in the means made use of for supporting the boom so that the same may be swung around parallel with the
20 pier or wharf line to be out of the way, or swung out at right angles into the position for use; and by my improvements I am able to make use of wire ropes or stays that suspend the
25 outer end of the boom, and these stays swing clear of each other and of the boom when the latter is out of use, and the said stays do not require to be disconnected.

In the drawings, Figure 1 is a plan view of my improved hoisting apparatus, showing
30 the parts in position for use in full lines, and in dotted lines as turned aside out of the way. Fig. 2 is an elevation sidewise of the apparatus as in use, and Fig. 3 is a front elevation of the apparatus. In Figs. 1 and 3 the bucket,
35 truck, and hoist-rope are omitted for greater clearness.

At R, I have represented the edge of the pier or wharf, and at A a boat is represented from which the cargo is to be unloaded. Upon
40 the wharf or pier is a suitable frame-work, A', for supporting the parts of the hoisting apparatus.

H H represent a boom, formed of two inclined tracks, upon which is the truck G, having a pulley, C', over which passes the hoisting-rope D.

B is the bucket for the coal, ore, or other material. C is the pulley above the same, around which the rope D passes, and N is a pulley
50 upon the frame A', over which the rope passes and descends to the hoisting apparatus.

The metal bracket O is connected at O² O³ to the tracks H, and at O' and O⁴ the same is supported in bearings upon the frame-work A' in a similar manner to that shown in the
55 aforesaid patent, so that the boom can swing upon the bearings O' O⁴ and occupy a position at right angles to the pier, or it can be swung around parallel with such pier, as shown by dotted lines in Fig. 1.

At the outer end of the boom the tracks H
60 are united together by a block, and to this block the cross-bar F is pivoted at F², and there are braces E pivoted at their outer ends to the ends of the cross-bar F, and at their inner ends
65 to the frame A'. In my aforesaid patent the pivots at the inner ends of the braces E were so placed in relation to the vertical axis or hinge upon which the boom swung that the
70 cross-piece F was turned into a position parallel to the boom when the latter was swung aside out of use.

According to my present improvements the pivots or hinges that unite the braces E to the frame A' are placed a less distance apart than
75 the pivots that connect the braces E to the cross-bar F in the manner indicated in Fig. 1, so that the cross-bar F will assume a slightly-diagonal position to the boom when the latter is swung aside and out of use. The object of
80 this improvement is to allow for the introduction of the wire ropes or stays T', that are fixtures and do not require to be unfastened when the boom is swung around. These stays
85 T' T' occupy inclined positions; but they are in vertical planes passing through the braces E, and the upper ends of such stays are connected to the frame A' by eyes or other suitable
90 attachments, and at their lower and outer ends to the pivot-bolts, that connect the braces E to the cross-bar F.

It will now be understood that when the boom is at right angles to the wharf and in position for use the outer end of said boom is very firmly sustained by the braces E and by the
95 stays or wire ropes T', and when the boom is swung aside and out of use the stays T' are not injured, because the cross-piece F occupies a position that is sufficiently diagonal to the boom to allow one of the stays T' to be at one
100 side of the outer bar, H, of the boom, and in consequence of the pivots upon which the

parts swing being in the vertical planes the boom can be swung with freedom in either direction, and there is nothing to interfere with the action of the hoisting apparatus or the movement of the truck upon the inclined boom.

I claim as my invention—

1. The combination, with the swinging boom and the cross-piece pivoted at the ends thereof, of the braces E and stays T', connected at their outer ends to the cross-piece and at their inner ends to the frame-work A', the respective stays and braces being in the same vertical plane, substantially as set forth.

2. The combination, with the boom, of the

pivoted cross-piece and braces pivoted to the same, the pivots of the braces at the cross-piece being farther apart than the pivots at the other end of the braces, for causing the cross-piece to assume a slightly diagonal position, substantially as and for the purposes specified.

Signed by me this 19th day of June, A. D. 1886.

CHAS. W. HUNT.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.