

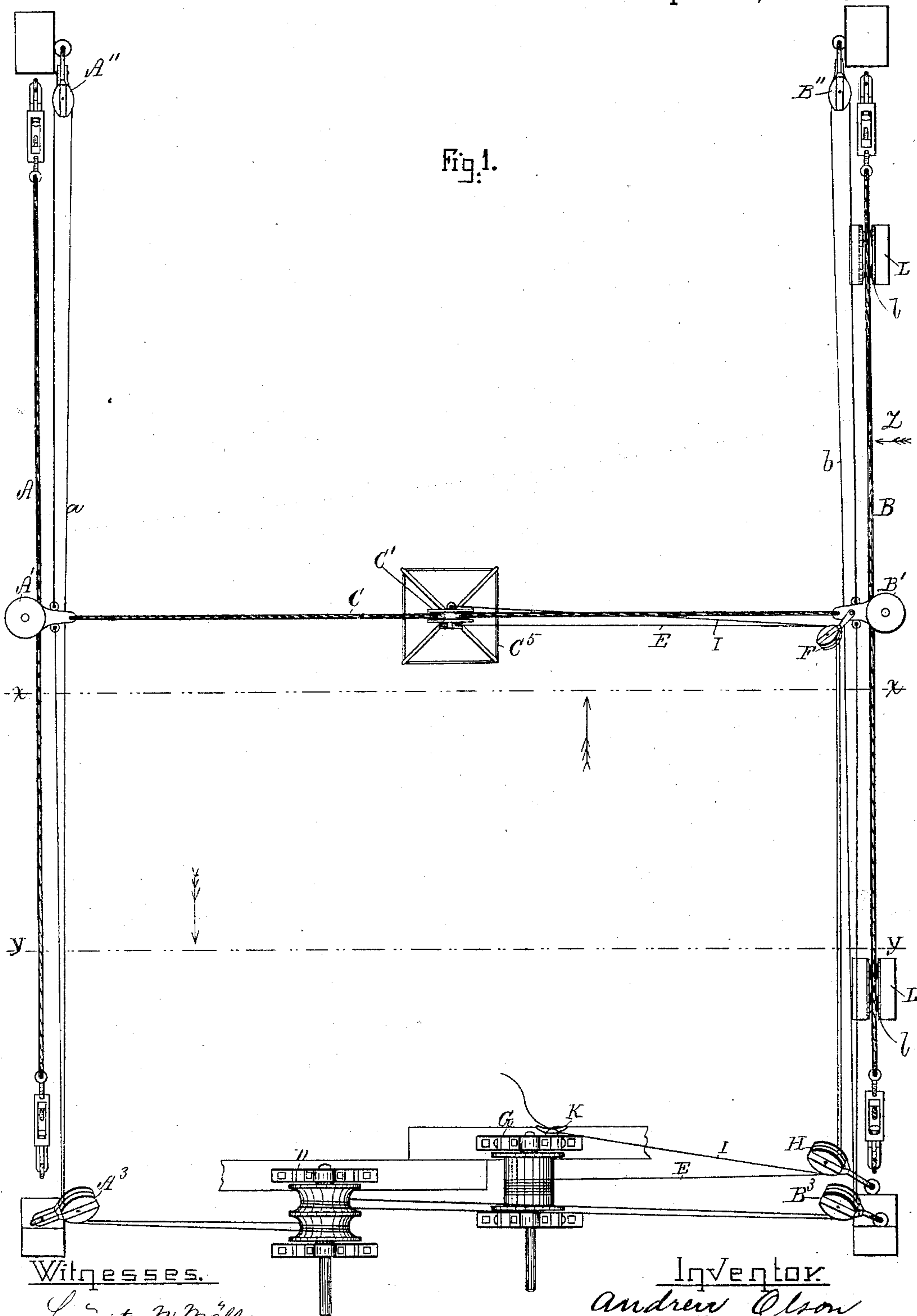
(No Model.)

3 Sheets—Sheet 1.

A. OLSON.
HOISTING DEVICE.

No. 482,648.

Patented Sept. 13, 1892.



Witnesses.

Lauritz W. Möller.
Alice A. Perkins.

Inventor.

Andrew Olson
by Alban Andrien atty.

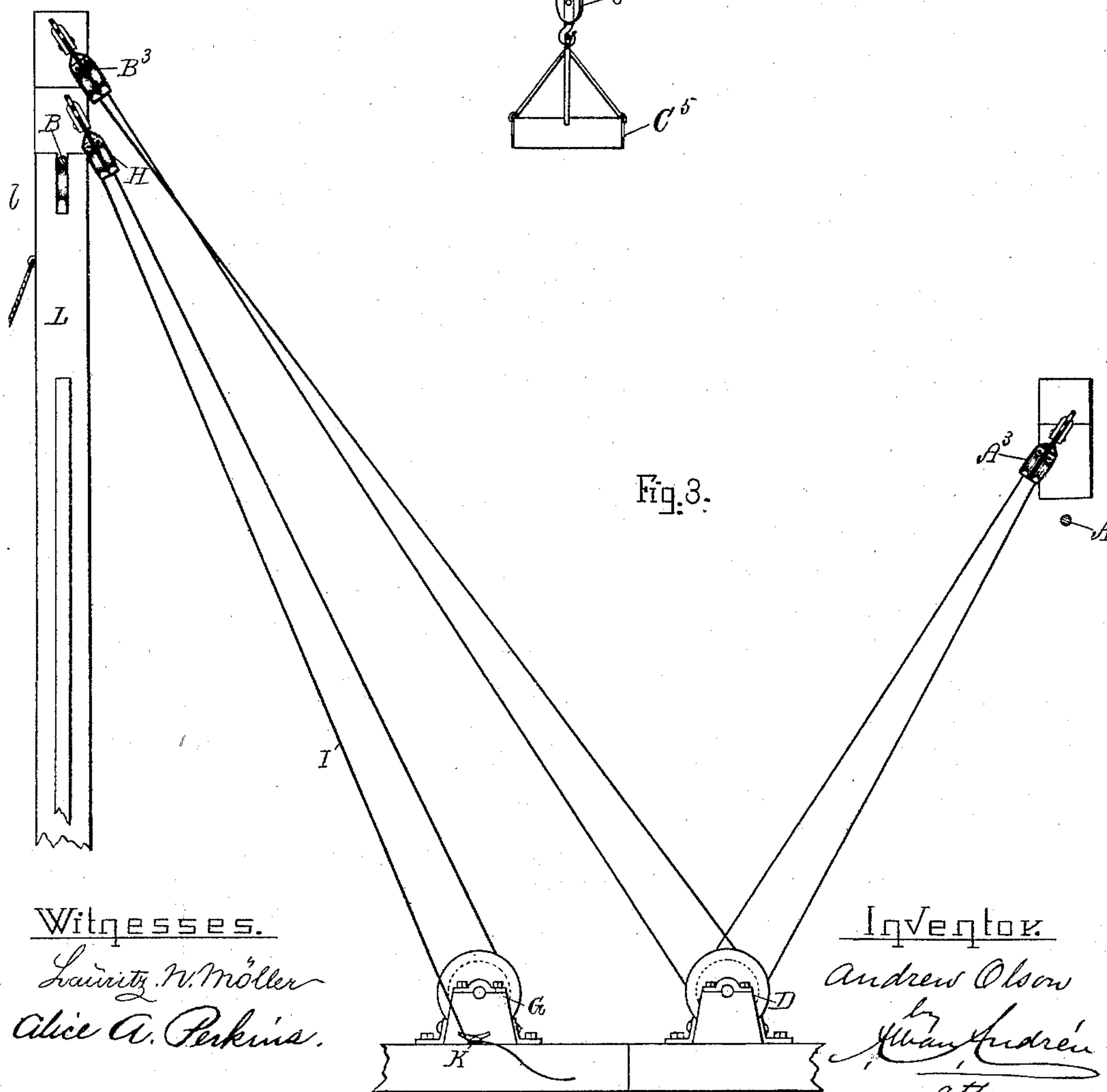
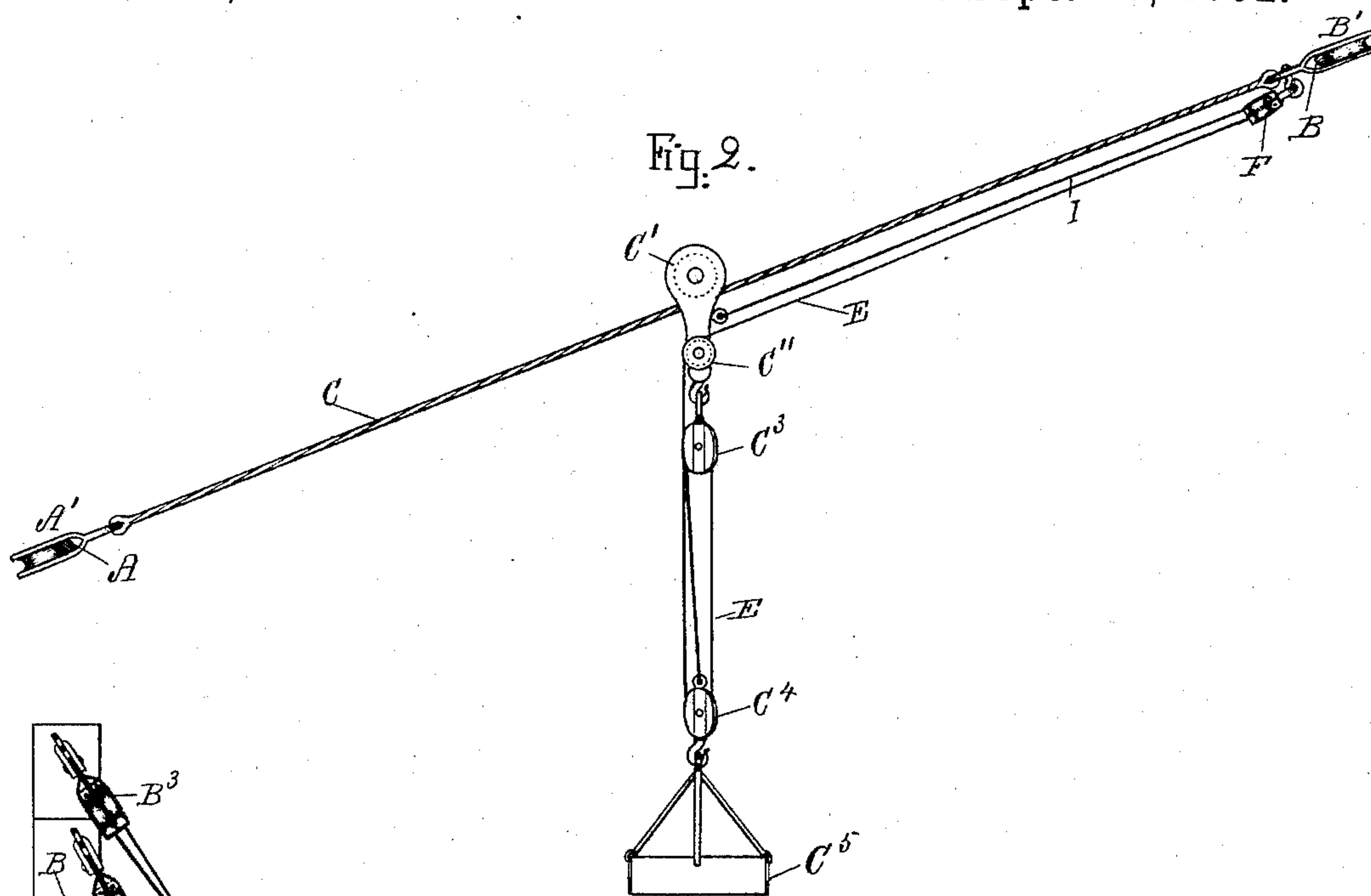
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Alice A. Perkins.

Inventor

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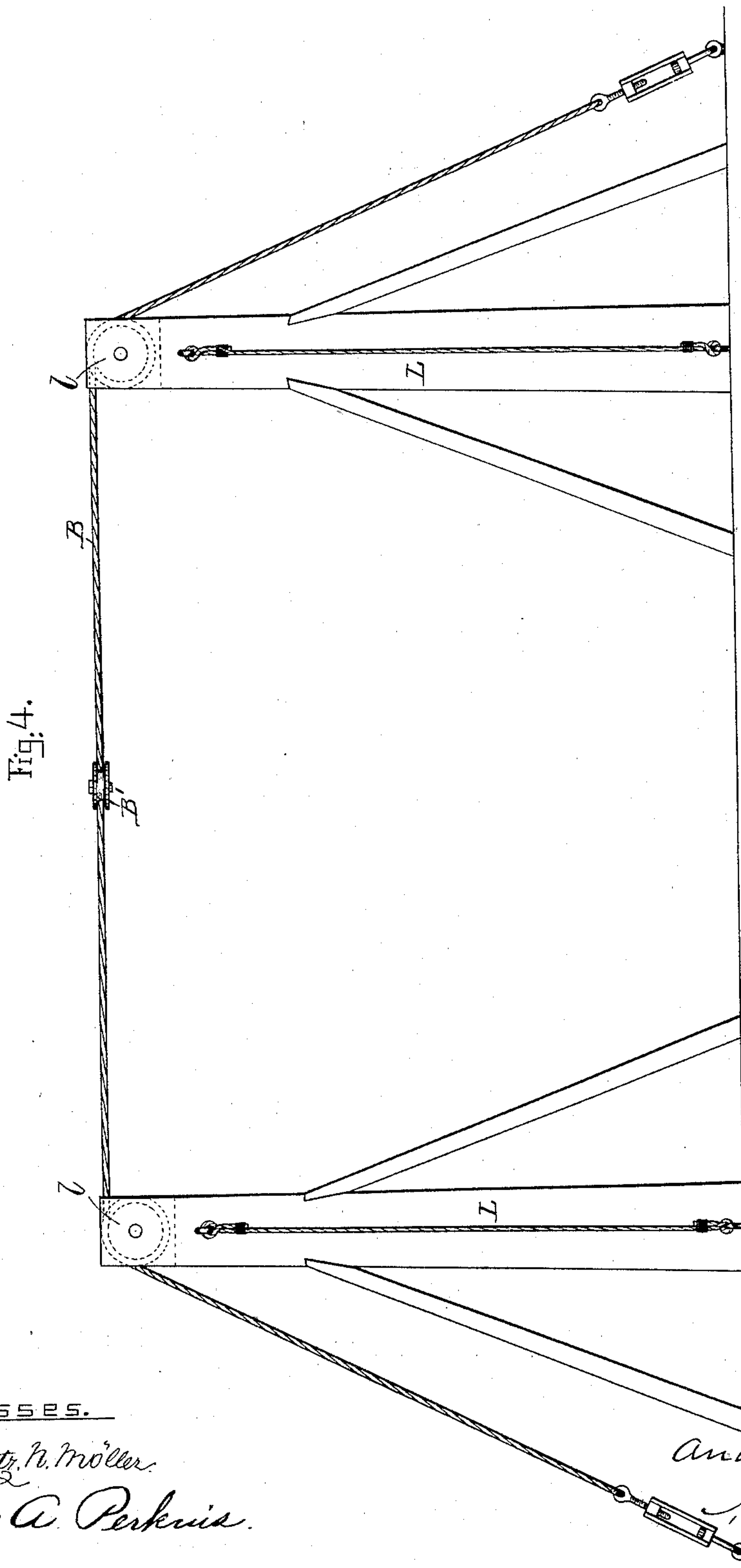
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UNITED STATES PATENT OFFICE.

ANDREW OLSON, OF QUINCY, MASSACHUSETTS.

HOISTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 482,648, dated September 13, 1892.

Application filed April 11, 1892. Serial No. 428,577. (No model.)

To all whom it may concern:

Be it known that I, ANDREW OLSON, a citizen of the United States, and a resident of Quincy, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Hoisting Devices, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in hoisting devices, and is particularly well adapted for quarrying purposes in hoisting and moving blocks of stone, although it may to equal advantage be used for general hoisting purposes, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a plan view of the improved hoisting device. Fig. 2 represents a cross-section on the line X X, shown in Fig. 1. Fig. 3 represents a cross-section on the line Y Y, also shown in Fig. 1; and Fig. 4 represents a side elevation seen from Z in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The invention consists of a pair of stationary parallel cables A and B, the ends of which are firmly secured to the wall or top of the quarry in any suitable manner.

One of the cables (the cable B in the drawings) is located at a suitable elevation above the other cable, (the cable A,) as shown in Figs. 2 and 3, for a purpose as will hereinafter be described.

A' and B' are traveling rollers guided on the respective cables A and B, and said rollers are adapted to travel on said cables and are connected by means of an inclined transverse cable C, as shown in Figs. 1 and 2. The roller A' is connected by means of an endless rope *a* to a drum D and is guided near the ends of the cable A over suitable pulleys A'' and A³, as shown. The roller B' is likewise connected by means of an endless rope *b* to the said drum D, and is guided near the ends of the cable B over suitable pulleys B'' and B³, as shown in Fig. 1. It will thus be seen that by rotating the drum D in opposite directions the cable C will be moved forward and back relative to the stationary cables A and B. The drum D may be rotated by power

or by hand, as may be most desirable, without departing from the essence of my invention.

C' is a trolley adapted to be guided on the inclined cable C, said trolley being preferably provided with a block and tackle composed of a sheave C'' and pulleys C³ C⁴, on which the hoisting-rope E is carried over the duplex roller F (attached to the pulley B') to the hoisting-drum G by means of the guide pulley or block H, as shown in Figs. 1, 2, and 3. The drum G may be rotated by power or by hand, as may be most desirable, without departing from the essence of my invention.

For the purpose of moving the trolley C' longitudinally on the inclined cable C, I attach to it a rope I, which is guided on the blocks F and H, and may be attached in any suitable manner to a cleat K or equivalent device during the hoisting operation.

C⁵ is a box or platform suspended from the block C⁴ and adapted to contain the load that is to be hoisted or conveyed from one part of the quarry to another, as may be desired.

In practice I prefer to secure the highest cable B, as represented in Fig. 4—that is, I erect posts or frames L L, which are properly and firmly braced in any suitable or well-known manner. I prefer to provide the upper ends of such posts with rollers *ll*, over which the cable B is carried and its ends securely anchored to the ground in a firm and substantial manner, as shown in Fig. 4. It will thus be seen that any part of the quarry can be reached by moving the transverse cable C forward and back on the stationary cables A B and moving the trolley C' and the load suspended from it longitudinally on said cable C. The load is moved forward and back in the direction of the cables A and B simply by rotating the drum D to the right or left, as the case may be, and pay out or pull in the ropes E and I, according to the direction in which the cable C is being moved. After the cable C has been moved to the desired position on the stationary cables A B the load may be adjusted to any desired position on the transverse cable C and raised or lowered by slacking or taking in the ropes E and I.

The invention is very simple in construction, strong and durable, and can be put up for hoisting purposes of any kind at a less ex-

pense as compared with the ordinary hoisting devices.

Having thus fully described the nature, construction, and operation of my invention, I
5 wish to secure by Letters Patent and claim—

A hoisting apparatus consisting of a pair of longitudinal cables A and B, one of which is arranged at a higher elevation than the other, the traveling rollers A' and B', mounted, respectively, on the longitudinal cables, a transverse cable C, connected with said traveling rollers, a trolley C', mounted on the transverse cable and provided with a suspended block and tackle composed of a sheave C'', pulleys
10 C³ C⁴, and a hoisting-rope E, a rope I, con-

nected with said trolley, a pair of endless ropes *a* and *b*, connected with the traveling rollers on the longitudinal cables, a windlass D, on which said endless ropes are wound in reverse directions, and an independent hoisting-windlass G, on which the hoisting-rope is wound, substantially as described. 20

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of
April, A. D. 1892. 25

ANDREW OLSON.

Witnesses:

ALBAN ANRÉN,
M. B. BESSEY.