(No Model.)

L. ROSENFELD.

HOISTING AND CONVEYING APPARATUS.

No. 533,669. Patented Feb. 5, 1895.

Fig. 1.

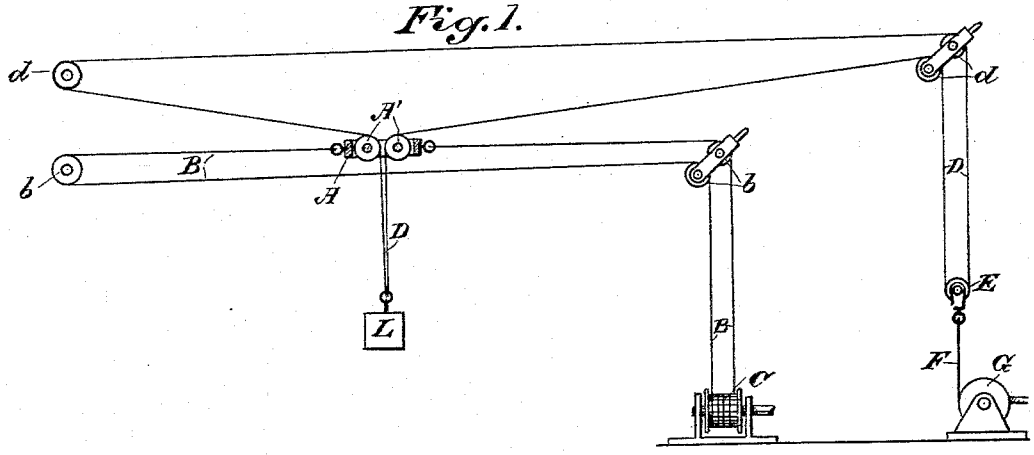


Fig. 2.

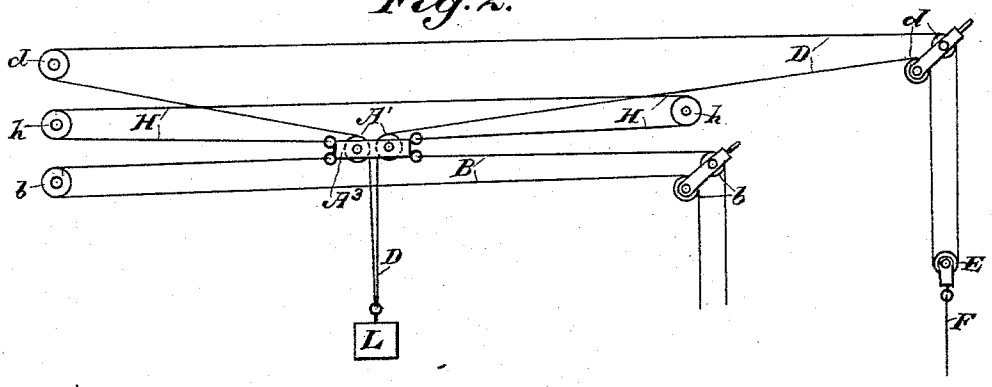
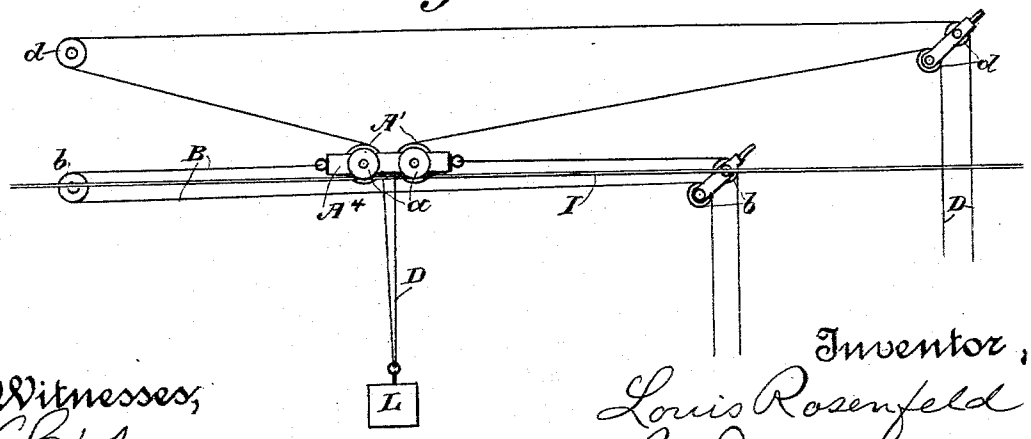


Fig. 3.



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HOISTING AND CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 533,669, dated February 5, 1895.

Application filed October 3, 1894. Serial No. 524,819. (No model.)

To all whom it may concern:

Be it known that I, LOUIS ROSENFELD, a citizen of the United States, residing in the city and county of New York, State of New York, have invented an Improvement in Hoisting and Conveying Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of hoisting and conveying apparatus.

It consists essentially in a sheave-carrier, a cable directed thereby to the load and having its bight passing through a running block, to which the hoisting line is attached, and a cable or rope attached to, and adapted to effect the travel forward and back of the sheave-carrier.

The object of my apparatus is to effect the forward and back travel of the load, while being suspended at any height, without the use of latches, and to enable the load to be raised or lowered at any point.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a view of my apparatus. Figs. 2 and 3 are modifications of same.

A, in Fig. 1, is what may be termed a sheave-carrier, and consists of any suitable frame-work in which can be mounted the sheaves A′ A′.

B is the traveler-rope or cable, its ends being attached to the sheave-carrier A, and thence passing over suitable blocks or pulleys designated by *b*, down to a device C which may be a drum or a grip sheave or other mechanism by which the rope or cable B may be drawn in on one side, and paid out on the other, to effect the movement forward and back of the sheave-carrier. The pulleys or blocks *b* may be supposed to be mounted upon or carried by any suitable frame-work, as, for example, the yard of a vessel or a gaff or a boom of a derrick, and the location of the drum C and the general course of the cable or rope B may all be as the conditions of location may require. It will be seen that the cable or rope B, in this instance, has the double function of supporting the sheave-carrier, and also of causing it to travel from side to side.

L is the load. With it is connected the ends of the load-rope or cable D, which passes upwardly by and over the sheaves A′ A′ of the sheave-carrier, and said rope or cable is then guided by pulleys or blocks *d* located at the ends of the line of travel of the sheave-carrier, down to the running block E around which its bight passes, and with said block is connected the hoisting line F leading down to the drum G. By winding or unwinding the hoisting line F, the load L is raised or lowered, and by operating drum C, the sheave-carrier A is moved forward or backward according to the direction in which the drum revolves.

If the hoisting drum G be held, as by a brake, while the sheave-carrier A is being moved, the load will travel along with the sheave-carrier, at any height to which it may be hoisted, the cable or rope D, to which the load is made fast, lengthening itself on one side and shortening on the other, by passing through the running block E.

If both the drums C and G are revolved at the same time the load will be raised or lowered obliquely.

In Fig. 2, I have shown an arrangement differing from that of Fig. 1 only in the employment of a separate span or cable for supporting the sheave-carrier A^3. This span or cable is designated by H and is supported and is freely movable as an endless rope, over properly supported pulleys or blocks *h* at each end. In this case the traveler-cable or rope D is relieved of the strain of supporting or suspending the sheave-carrier, which duty is principally taken by the span H, which by its endless movement around its terminal pulleys, permits the forward and backward travel of the sheave-carrier by the action of the traveler-rope or cable B, as heretofore described.

In Fig. 3, I have shown a modification, which differs from that of Fig. 2 in the substitution for the span H of a fixed track I upon which the sheave-carrier A^4, which now takes the form of a trolley, having wheels *a*, travels.

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

1. A hoisting and conveying apparatus comprising a sheave carrier and means whereby it is caused to travel forward and backward, a load rope the ends of which are guided to the load by the sheaves of the carrier, and

whose bight passes freely through a running block, and a hoisting line connected with the running block.

2. A hoisting and conveying apparatus comprising a sheave-carrier, a load-rope, the ends of which are guided to the load by the sheaves of the carrier, and whose bight passes freely through a running block, a hoisting line connected with said running block, a traveler-rope or cable connected with and adapted to effect the forward and backward movements of the sheave-carrier, and means for supporting said sheave-carrier.

In witness whereof I have hereunto set my hand.

LOUIS ROSENFELD.

Witnesses:
S. H. NOURSE,
WM. F. BOOTH.