

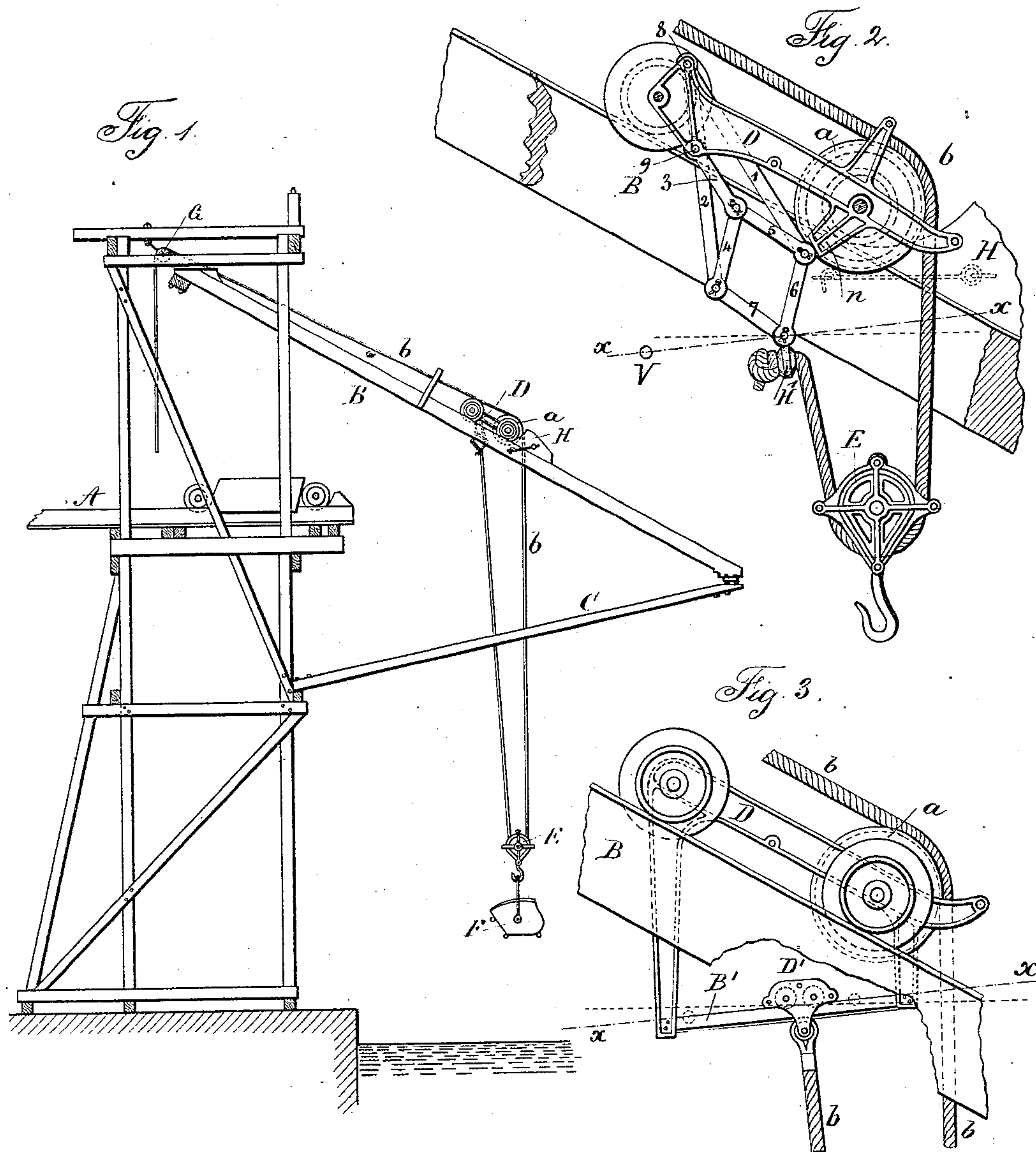
(No Model.)

C. W. HUNT.

CARRIER OR SHEAVE TRUCK FOR HOISTING MACHINERY.

No. 282,640.

Patented Aug. 7, 1883.



Witnesses
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UNITED STATES PATENT OFFICE.

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CARRIER OR SHEAVE-TRUCK FOR HOISTING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 282,640, dated August 7, 1883.

Application filed June 9, 1883. (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 Carriers or Sheave-Trucks for Hoisting Machinery; and the following is declared to be a full, clear, and exact description of the same.

In the hoisting of coal from barges to cars, or
10 in lowering and transferring coal from cars to vessels for consumption or transportation, as well as in transferring other commodities by means of hoisting machinery, the rope employed is very liable to become twisted above
15 the pulley-block, because of the proximity of the upper ends, and so cause inconvenience, trouble, and delay.

The object of my invention is to prevent the aforesaid twisting and to provide a spreading
20 device operating automatically by the weight of the material being handled, so that the higher ends of the rope will be spread when the weight is down and proportionately drawn together as the weight ascends.

My invention consists in the combination,
25 with a carrier or sheave-truck and the hoisting-rope, of a self-acting spreader, to which the end of the hoisting-rope is connected, the same serving to spread the two hanging portions of the rope at the upper end a sufficient
30 distance to prevent said parts of the rope twisting together.

In the drawings, Figure 1 is a side elevation of a coal or ore hoist employed by me and upon
35 which my automatic spreader is applied. Fig. 2 is a side elevation of my improved sheave-truck and spreader and its ways in larger size, and Fig. 3 is a side elevation of a modification of my sheave-truck and spreader.

40 The coal or ore hoist is to be placed in any desired locality, and it may be provided with the track A for cars, and the inclined track B is supported by a frame-work of timbers, C.

My improved sheave-truck D is adapted
45 to travel on the track B. The carrier or sheave-truck D consists of a frame or castings secured together and mounted upon four flanged wheels which travel upon the ways or inclined tracks B. In connection with this
50 sheave-truck a sheave, *a*, is mounted, over which the hoisting-rope *b* travels in raising and lowering the pulley-block E and bucket F.

The hoisting-rope passes over a pulley, G, at the upper end of the inclined track, to an engine or other source of power, and in raising
55 or lowering the pulley-block E and bucket F the rope first draws the bucket up until the frame of the pulley-block stops against the eye, and then the rope draws the truck up the incline to the place of delivery. The reverse
60 movement takes place when the truck is allowed to run down, and when the truck arrives at the block H its motion is arrested, and the bucket is lowered vertically as the hoisting-rope is slackened. This mode of operation is
65 the same as has heretofore been employed; but it has been usual to attach the end of the hoisting-rope directly to the truck, and hence there is liability for the vertical portions of the rope to twist together. I prevent this by the use of
70 a self-acting spreader which intervenes between the end of the hoisting-rope and the truck, so that the said spreader widens the distance between the end of the rope and the pulley over which the other portion of such
75 rope passes. The device which I prefer consists of the jointed links shown in Fig. 2, which are so placed that the point of attachment of the rope moves in a straight line. The links
80 1 and 2 are pivoted at the bolt 8 and hang from the same. To the lower ends the links 6 and 7 are pivoted. These are united at their lower ends and to the eye, to which the end of the hoisting-rope is attached. The link 3 is pivoted
85 at the upper end by the bolt 9, and its lower end is hinged to the two links 4 and 5, which are hinged at the junction of the links 1 and 6 and 2 and 7, respectively. The link 3, being shorter than the links 1 and 2, describes an arc of a circle of less radius, and in
90 so doing spreads or draws together the links 4 5 6 7, and the attaching-eye H', instead of swinging in the arc of a circle, moves along the inclined line *xx*; hence as the pull of the rope *b* draws the hoisting-pulley up toward
95 the truck the spreader-links will swing at their lower end toward the hoisting-sheave *a*; but as the bucket is lowered the links will move, so that the upper end of the hoisting-rope is carried off to the position V, or nearly so. This
100 keeps the nearly vertical parts of the rope so far from each other that there is no risk of their twisting together.

I provide a projection or stop, *n*, Fig. 2,

upon the frame of the sheave-truck, to limit the motion of the link system when the bucket is raised and, with the truck, is being drawn up the inclined plane or ways B. This automatic spreader may be in the form of a sheave-truck, D', (shown in Fig. 3,) the same resting upon an inclined track, B', suspended from the sheave-truck. The track B' being at an inclination causes the truck D' to run away from the descending rope as the bucket is lowered, and in so doing the end of the rope is carried off sufficiently to prevent the two parts of said rope from twisting together.

It is obvious that a spring might be substituted for the before-named devices by attaching one end of the same to the frame of the sheave-truck or of some link-work, and the other end to the end of the rope in such a manner that the parts of the rope may separate as the bucket descends, or approach each other when the bucket and pulley-block have been drawn up.

While I prefer the system of links heretofore described, still I do not limit myself in this particular, as other equivalent devices might be used equally well, the main feature of my invention being a device for shifting the position of the eye or loop at the fast end of the rope, spreading the upper end of the rope, and

thus obviating the difficulty arising from the twisting of the rope.

I claim as my invention—

1. In combination with a carrier or sheave-truck for hoisting machinery, an automatic spreader to which the end of the hoisting-rope is attached, whereby the parts of the rope are spread as the bucket is lowered, as set forth.

2. The combination, in a hoisting-machine, of the inclined ways, hoisting-rope, bucket, and sheave-truck, and an automatic spreader composed of a system of links connected to the frame of the sheave-truck and to the end of the hoisting-rope, respectively, and operating substantially in the manner and for the purposes set forth.

3. In a hoisting-machine, the combination, with the inclined track B, supporting-timbers C, sheave-truck D, rope *b*, and a pulley-block upon said rope, of the links 1 2 4 5 6 7, bolt 8, the eye or loop H', and projection or stop *n*, substantially as and for the purposes set forth.

Signed by me this 1st day of June, A. D. 1883.

CHAS. W. HUNT.

Witnesses:

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