L. T. PYOTT.

HOISTING APPARATUS.

No. 171,855. Patented Jan. 4, 1876.

FIG. 1.

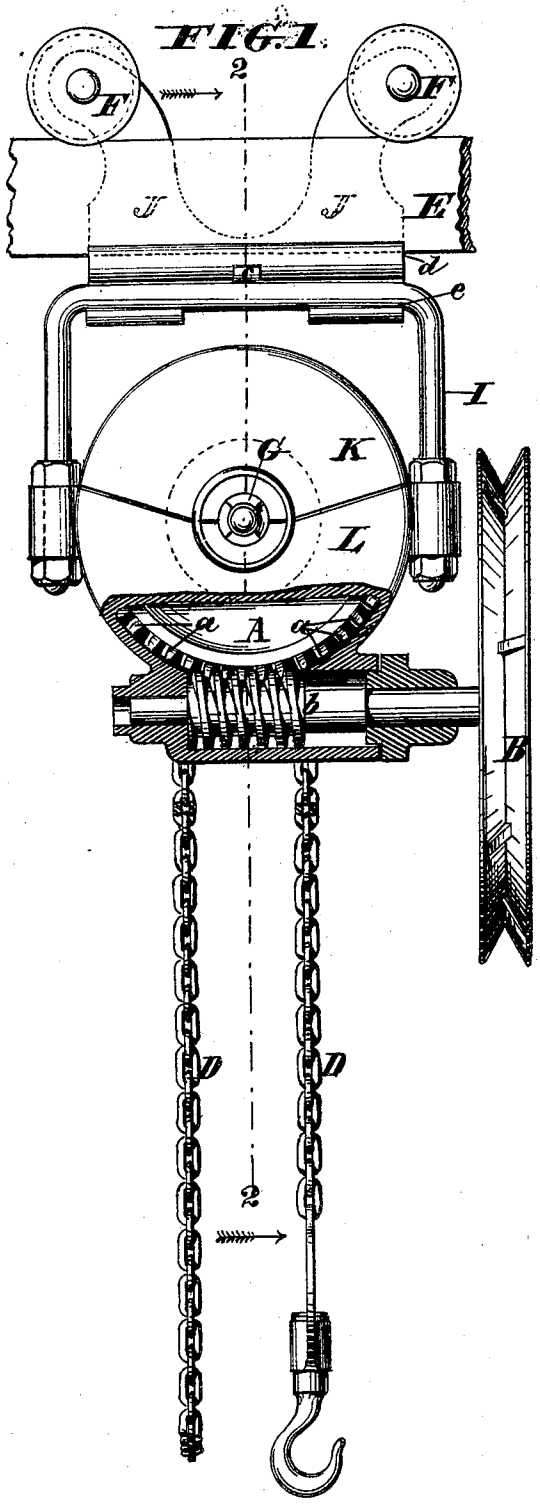
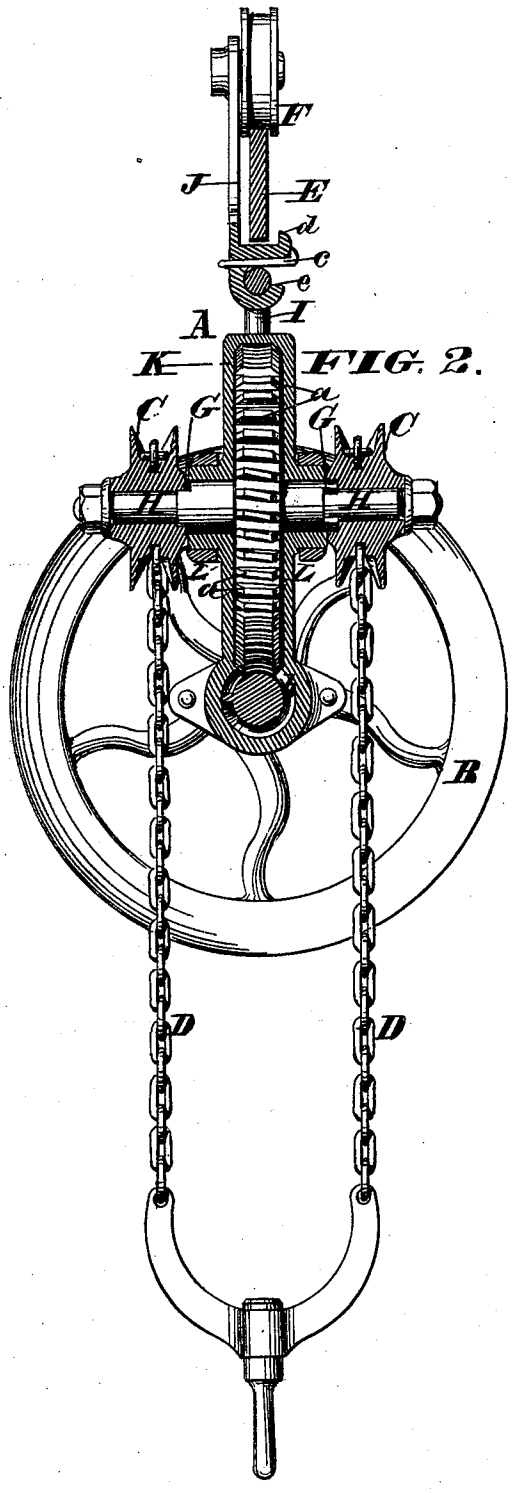


FIG. 2.



WITNESSES

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LOUIS T. PYOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND MATHIAS PENNYPACKER, OF SAME PLACE.

IMPROVEMENT IN HOISTING APPARATUS.

Specification forming part of Letters Patent No. **171,855**, dated January 4, 1876; application filed October 16, 1875.

To all whom it may concern:

Be it known that I, LOUIS T. PYOTT, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hoisting-Machines, of which the following is a specification:

This invention relates to improvements in hoisting-machines, which may be used either as traversing-hoists when suspended by wheels running upon a rail or beam, or, by detachment therefrom, be used as lifts at any desired point.

The invention consists, first, in a central box, affording bearings for a wheel carrying winding-sheaves on its opposite sides outside the said box, over which sheaves a double winding-chain is applied; second, the direct attachment of the chain-wheels, by means of clutches and a clamp-bolt, to the main wheel, by means of which I dispense with the use of shaft and keys.

The use of a double chain in the construction of heavy lifts obviates the necessity of the use of the large chains that are now required when it is desired to obtain strength of section. It also presents a double amount of wearing-surface on the chain and face of sheaves, and equalizes the load on the two bearings, thereby reducing friction, preventing unequal or indirect wear and strains, and greatly increasing the durability and strength of the apparatus.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved hoist. Fig. 2 is a section thereof on the line 2 2, Fig. 1.

A is the worm-wheel, having its bearings in a central box, L. B is the driving-wheel, having on the inner end of its axle a worm or screw, *b*, which, meshing into teeth *a* on the wheel A, rotates the same on being revolved. C C are the chain-wheels or sheaves, which are placed in direct attachment with the worm-wheel A, on either side of the central box L, by means of clutches G and bolt H, thus dispensing with the use of either shaft or keys. D D is the double chain, to one end of which is secured, by any suitable means, a hook, to which articles to be hoisted are attached. The other end of the chain is carried over the wheels or sheaves C, which, on being revolved by turning the wheel A to the right hand, draw the chain and load thereon up, and allow the other or free end of the chain to fall toward the ground. A reversal of the motion causes the hook end of the chain to descend, as will be well understood. E represents a rail, from which the hoist may be suspended. F represents grooved wheels, which, when the apparatus is to be used as a traversing-hoist, enables the same to traverse from one point to another of the rail. I represents a yoke, which is firmly secured at its ends, by nuts, to projections on the box L of wheel A. K represents an inclosing-cover. A hanger, J, has at one end suitable grooved wheels F, which, fitting the top of the rail, enables the apparatus to traverse from one end to the other. A groove, *d*, formed near the other end of the hanger, receives the lower side of the rail. Below this groove is a second groove, *e*, of hook shape, upon which the yoke I is hung. A wedge, *c*, is inserted between the lower portion of the upper groove and the top of the hanger I, for the purpose of holding them firmly together and preventing shaking.

What I claim as new, and desire to secure by Letters Patent, is—

1. A hoisting apparatus constructed, as described, with a central box for the main wheel, and with sheaves projecting on both sides of said central box, and receiving a double chain, for the purposes explained.

2. The double sheaves C, worm-wheel A, and clamp-bolts H, geared together by the aid of clutch-connections, substantially as herein set forth.

LOUIS T. PYOTT.

Witnesses:
ROSS VANSCIVER,
JONATHAN ELLIOTT.