

J. SCOTT.
HOISTING MACHINE.

No. 112,855.

Patented Mar. 21, 1871.

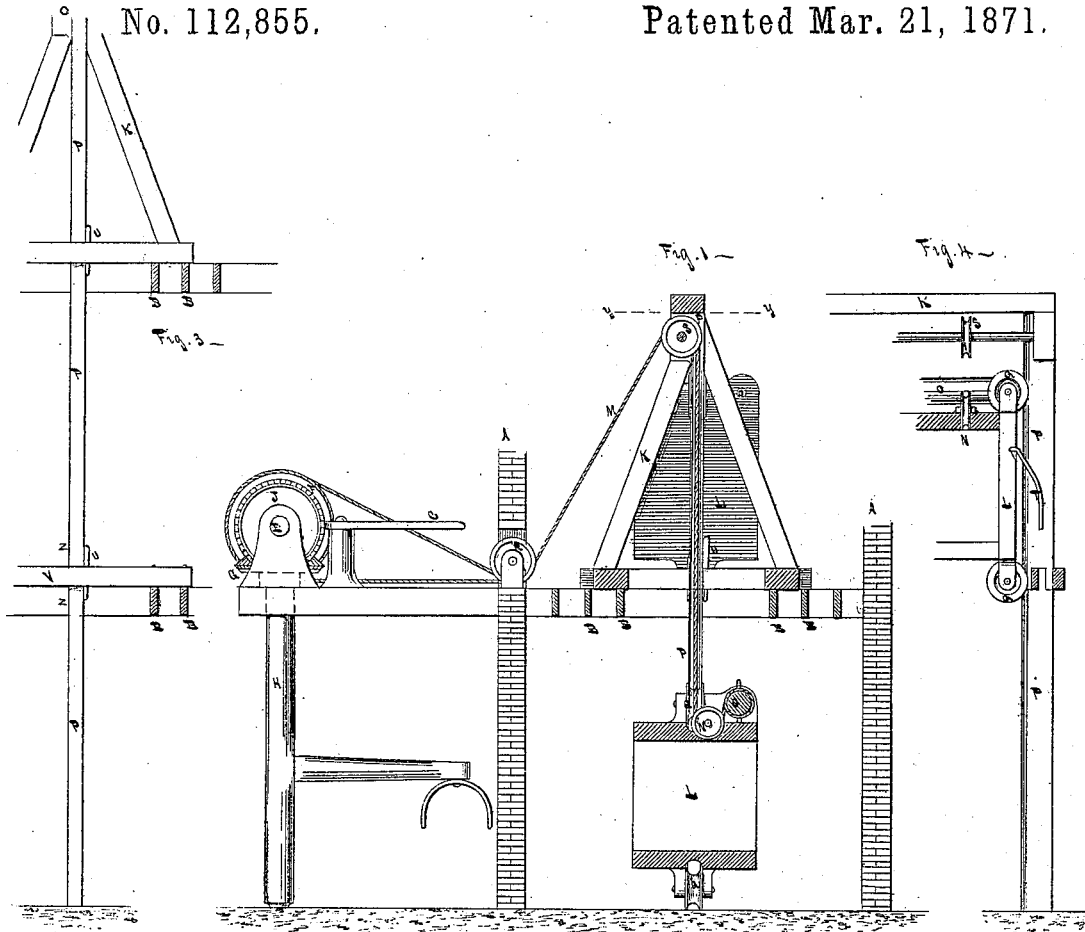
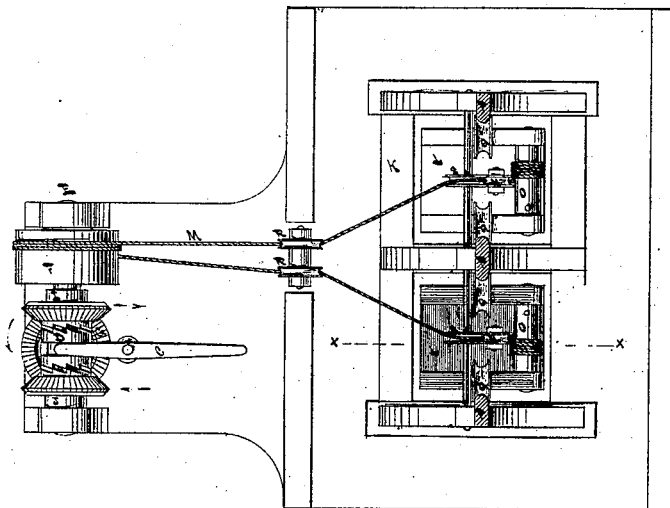


Fig. 2 -



WITNESSES:

Jaynes & Thierney
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INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN SCOTT, OF PONTIAC, MICHIGAN.

IMPROVEMENT IN HOISTING-MACHINES.

Specification forming part of Letters Patent No. **112,855**, dated March 21, 1871.

To all whom it may concern:

Be it known that I, JOHN SCOTT, of Pontiac, in the county of Oakland and State of Michigan, have invented a new and useful Improvement in Hoisting-Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a side elevation of my device, partly in section, on the line *x x* in Fig. 2. Fig. 2 is a plan of the same, partly in section, on the line *y y* in Fig. 1. Fig. 3 is a side elevation, showing adjustment of said device for the conveyance of materials to and from an upper story of a building. Fig. 4 is part of an elevation and section, *z z*, in Fig. 3.

Like letters refer to like parts in each figure.

The nature of this invention relates to the construction of a simple, but very effective, machine, by means of which bricks, mortar, and other material required by builders may be readily and economically conveyed to them, and by means of which they, themselves, with their laborers, may be raised to, and lowered from, their work with safety.

The invention consists in the combination of a reversing gear and drum, driven by any convenient power, with a rope, or its equivalent, so connected with blocks or sheaves as to lead said rope to and from said drum to a pair of platforms, chairs, or boxes attached to said rope, and so combined with rollers and guides as to enable said platforms to move in opposite directions relatively to each other, so that, while one of said platforms shall be compelled to ascend to the upper stories of a building with material, the other platform will descend to the lower story to receive a fresh load.

In the accompanying drawing, A are walls, partly erected of a building; and B are joists in the same. C is the reversing-lever employed to shift the clutch D, which is fettered as usual, and revolves with the shaft E and drum F. G is a bevel-wheel secured to the driving-shaft H, and meshes into the wheels I J, which fit loosely on the shaft E. K is a frame provided with guides and sheaves, and of sufficient strength to carry safely the load to be elevated or lowered on the platforms L, which are attached to the rope M, which runs on the sheave N and rollers O, the length of said rope being regulated by the latter, while

its position relative to the center of gravity of the platforms is maintained by the former. P are guides forming vertical tracks for the rollers Q in each platform, and thus steady and direct the course of said platforms.

In adjusting the device for operation, said rope is coiled at the middle of its length around said drum a sufficient number of times to attain proper adhesion, and is thence passed under the sheaves R and over the sheaves S, after which it is attached to said chairs, as hereinbefore described.

The working length of said rope should be such as to allow one of said chairs to rest on the ground below while its mate is at the landing above.

Suppose the upper platform to be empty, and the lower one loaded and ready to be hoisted, the latch S being drawn from its notch in the edge of the platform, and the wheels G, I, and J turning constantly in the direction of the arrows in Fig. 2, it will suffice to shift the clutch into either of the wheels I J, or out of both, to reverse the course of said rope, or to stop it altogether. Thus, by shifting the clutch into the wheel I, the empty platform will descend, and the loaded one ascend, until it reaches its landing, which is indicated by the latch T dropping into its notch and securing its platform, when the clutch is thrown out of gear by the operator, and the platforms rest until ready for another trip; then the clutch is thrown into engagement with the wheel J, and the course of the platforms is reversed.

To reach another story higher, the frame is raised to the next floor, and there fastened to the joists, as before, additional sections of guides being inserted into the breach left open by the ascension of said frame, and tightened by wedges U to braces V and base of said frame, as shown in Fig. 3, after which the rope is adjusted, and the device is again ready for operation.

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

The combination of the driving and reversing gear C D E G H I J, drum F, rope M, sheaves R S N, rollers O Q, guides P, platforms or chairs L, frame K, and latches T, when arranged substantially as and for the purposes set forth.

JOHN SCOTT.

Witnesses:

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H. F. EBERTS.