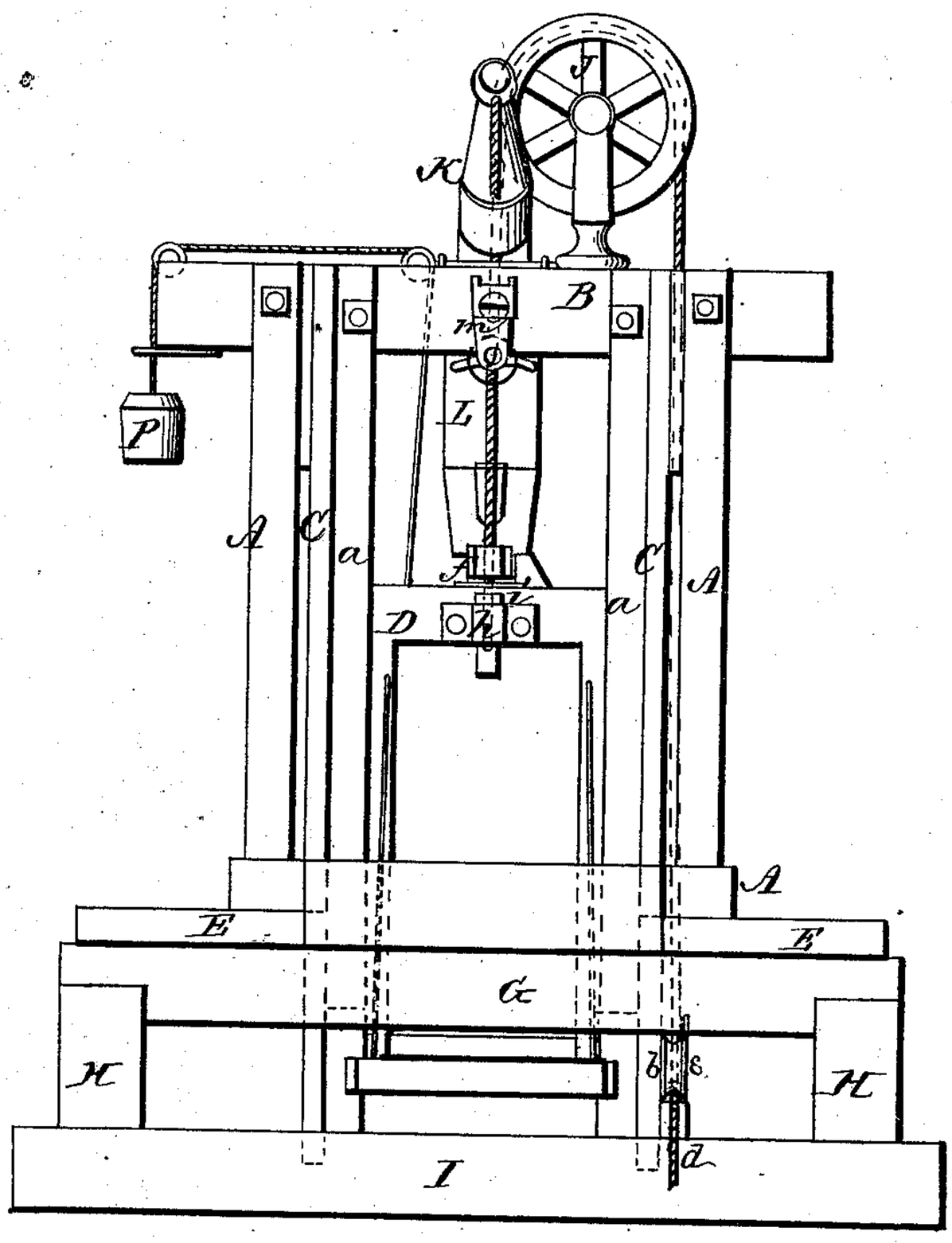
2 Sheets--Sheet 1.

J. B. SWEETLAND.

Elevator.

No. 160,850. Patented March 16, 1875.

Fig. 1.



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2 Sheets--Sheet 2.

J. B. SWEETLAND.

Elevator.

No. 160,850. Patented March 16, 1875.

Fig. 3.

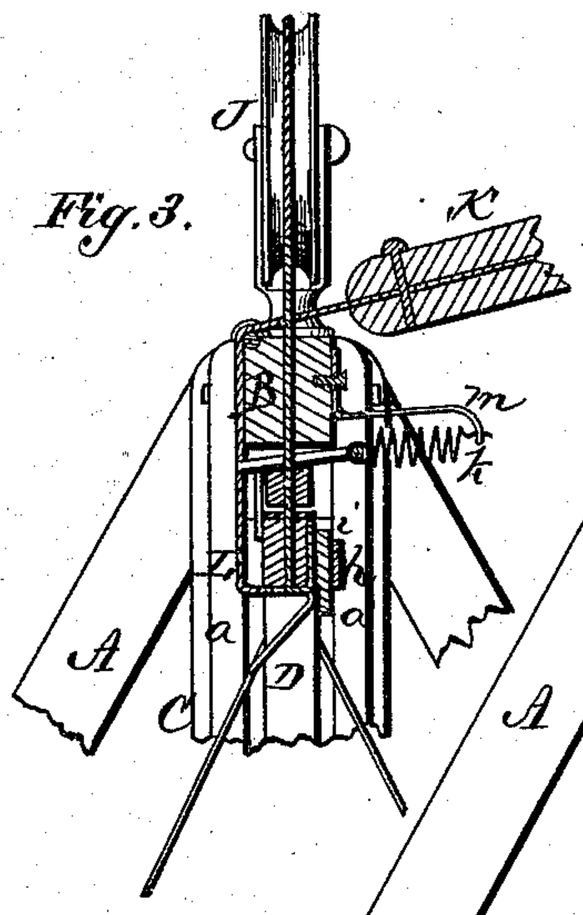
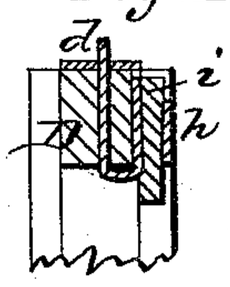


Fig. 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

JEROME B. SWEETLAND, OF PONTIAC, MICHIGAN.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **160,850**, dated March 16, 1875; application filed August 28, 1874.

To all whom it may concern:

Be it known that I, JEROME B. SWEETLAND, of Pontiac, in the county of Oakland and in the State of Michigan, have invented certain new and useful Improvements in Elevators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of an elevator for brick, mortar, and other building material, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is an end elevation of my elevator. Fig. 2 is a longitudinal vertical section of the same. Figs. 3 and 4 are sections of detached parts thereof.

In the construction of the head-gear or wood-work of my elevator I erect two or more trestles, A A, with a beam, B, across from one to the other, and a plank, C, of any suitable dimensions, set on the inside of each trestle, and firmly bolted or nailed thereto at top and bottom. On the inner face of each plank C are fastened two parallel strips, *a a*, a suitable distance apart, and a bolt is passed sidewise through said strips and through the beam B. By this arrangement vertical grooves or ways are formed for a carriage or sash, D, to run in, and at the same time it braces the trestles firmly, so as to need no other bracing, and thus making it self-supporting.

In order to set up my elevator I lay down two planks, E E, one on each side of the opening, and secure them to the joists G G, which are supported by the walls H H of the building. The planks C′, that form the lower part of the guides, are then set up, their lower ends being let into the floor I below, or secured in any other suitable way, and their upper ends, after plumbing, are fastened to the planks E E. It is then ready for the head-gear or the machine proper, which, after setting so that its guides are straight with those below, is fastened to the same planks E E. As the head-gear is raised from one story to another I put down new planks each time or on each additional story, leaving the ones already put down to hold the guides already put up, and to splice the next piece onto. At or near the lower end of one of the planks C′, on the outer side, is attached a pulley or sheave, *b*, around which the hoisting-rope *d* passes. This pulley is provided on the outside with a shield, *e*, to prevent the rope from slipping off. By attaching the pulley to the plank C′ I have it perfectly solid, with no expense except the pulley itself, and the bolt or other fastening that holds it. The hoisting-rope *d* passes up through a hole in the beam B, over a stand-pulley, J, on top thereof, and down through another hole in the center of the beam. It is fastened to the carriage D by passing it through the top or draw-bar of the carriage, and then running it through a casting, *h*, on the side thereof, and secured therein by a wedge, *i*, driven from the top into said casting. By this means, as the rope becomes worn or broken, it can be quickly detached from the carriage by extracting the wedge, and the rope repaired or a new one replaced without delay. On the draw-rope *d*, above the carriage, is slipped a rubber bumper, *f*, to prevent or take off the concussion of the carriage, which would otherwise strike the beam. This bumper may be placed in any other suitable position on the carriage or beam to effect the same object. On top of the beam B is hinged a trip-lever, K, from one end of which projects a hook, L, to catch and hold the carriage when elevated. The hook L is, by a spring, *k*, connected with a spring bar or arm, *m*, attached to the beam B, to draw the hook into place. When the carriage arrives at the top with a wheelbarrow, it is designed for a man to walk right through the carriage from either way. Now, the hook L locks the carriage so it is perfectly safe, and when the man has unloaded his barrow and returned with it, he runs it onto the carriage and reaches up and trips the lock, and the carriage at once descends. When a single carriage is used, as shown in the drawing, I use a counterbalancing-weight, P, to prevent the carriage from running down too fast. This also makes the load just that much lighter to elevate.

This elevator may be worked by hand, horse, steam, or other power, as is most convenient.

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

1. The combination of the trestles A A, cross-beam B, vertical planks C C, strips *a a*, and bed-planks E E, supported upon the joists G G, with the vertical guides C′ C′, arranged between the floors of a building, so that the frame may be moved from floor to floor, and the carriage may be elevated and guided through the floors, substantially as set forth.

2. The combination, with the beam B, of the hook L hinged thereto, the arm *m*, spring *k*, and trip-lever K, for securing and releasing the carriage D at will, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of August, 1874.

JEROME B. SWEETLAND.

Witnesses:

JUNIUS TEN EYCK,

M. F. LE ROY.