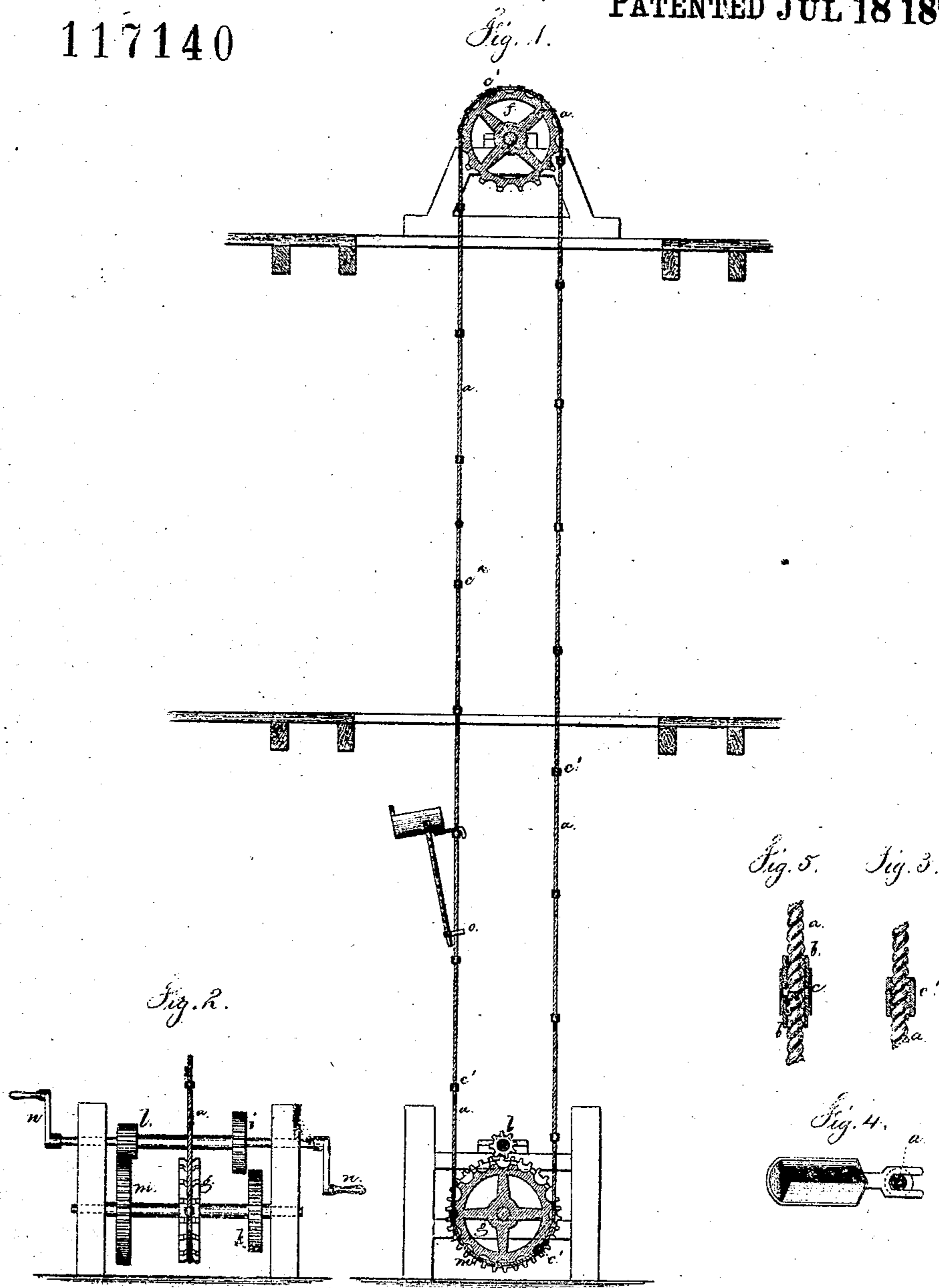


Leonard Atwood Elevator for Hoods.

PATENTED JUL 18 1871

117140



Witnesses

Chas. H. Smith
Geo. J. Walker

Leonard Atwood
Lemuel W. Perrell

att'y.

UNITED STATES PATENT OFFICE.

LEONARD ATWOOD, OF NEW YORK, N. Y.

IMPROVEMENT IN ELEVATORS FOR HODS.

Specification forming part of Letters Patent No. 117,140, dated July 18, 1871.

To all whom it may concern:

Be it known that I, LEONARD ATWOOD, of the city, county, and State of New York, have invented an Improvement in Elevators for Hods; and the following is declared to be a correct description thereof.

Elevators for hods have before been used in the construction of buildings to raise up the bricks and mortar to the upper floors of the building as the work progresses. For this purpose the platform-elevator is inconvenient, in consequence of the space occupied and the time required to change the parts and lengthen out the slides as new tiers of floor-beams are laid. An elevator has also been made of chains and cross-bars, composing an endless ladder. This, however, is expensive, and ordinary laborers do not understand easily the way to lengthen out the ladder and changing the position of the parts as the building progresses.

My invention is made with reference to cheapness, convenience in use, facility for adjustment, and the avoiding of risk from any parts becoming loose or disconnected. I employ an endless chain or rope running over two wheels and carrying sockets or hooks, by which the hod or other vessel is suspended, so that by revolving one of the wheels the endless rope is moved and carries up the full hods on one side and lowers the empty hods on the other side.

In the drawing, Figure 1 is a vertical section, showing my apparatus in place for use. Fig. 2 is an elevation of the gearing for giving motion to the endless rope. Fig. 3 is a section of one of the thimbles. Fig. 4 is a plan of the hod; and Fig. 5 is a section, showing the manner of uniting the lengths of rope to extend the elevator.

The rope of wire, or other material, is made in suitable lengths and united so as to form an endless rope or chain, *a*. I prefer to have the separate pieces of lengths adapted to the distances between the respective tiers of beams, so as to lengthen the same as the building progresses. In order to unite the ends of these lengths together, I introduce the end of the wire rope into a short cylinder, *b*, and secure the same, by solder or other material, firmly therein; and upon the outside of such cylinder is a screw-thread, so as to screw into the thimble *c*, as illustrated in Fig. 5. Upon the endless rope, at suitable distances apart, the thimbles *c' c'* are attached. These may be secured by casting metal into them and

around the wire rope, the interior of the thimbles having a screw-thread or being roughened. The endless rope or chain passes above the wheel *f* and below the wheel *g*, and said wheels are grooved so as to be adapted to such rope, and notches may be provided for the thimbles, as shown. These wheels *f* and *g* are supported in suitable frames, and to one of them gearing is to be applied so as to rotate the wheel and move the chain. I have shown the gearing *ik* and *lm* for communicating either a faster or slower movement from the crank or cranks *n* to the endless rope or chain. A ratchet or pawl is to be applied to prevent the rope or chain running back, and the upper wheel should be sustained by the frame sufficiently above the upper tier of beams to be convenient in taking off the hods or vessels. The hods are of any convenient size or shape, and are provided with a hook to take the thimble *c'* of the endless rope, or into the links of the chain, where flat links are used. I prefer to have the hook made double, as seen in Figs. 1 and 4, to pass on each side of the rope or chain *a* and rest upon the thimble *c'*; but a single hook might be used for a chain, or for the thimble *c'*, if the same has an eye or socket. The shank of the hod is to be steadied by a fork, *o*, that sets against the rope or chain.

This apparatus is very cheap, strong, durable, compact, and easily adapted to a building, because the wheel *f* and its frame has only to be raised to each successive tier of beams as laid, and a length or lengths of rope or chain inserted into the endless belt to lengthen the same out to the required extent.

I am aware that an endless chain passing above and below pulleys has been employed for raising boxes or receptacles for bricks, mortar, &c.; therefore I do not claim the same. Neither do I claim a double chain, with cross-bars or rungs, forming an elevator and ladder.

I claim as my invention—

The hod, provided with a hook at its upper end and a fork upon the shank or handle, in combination with an elevating rope or chain, as and for the purposes specified.

Signed by me this 20th day of January, A. D. 1871.

LEONARD ATWOOD.

Witnesses:

HAROLD SERRELL,
GEO. T. PINCKNEY.

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