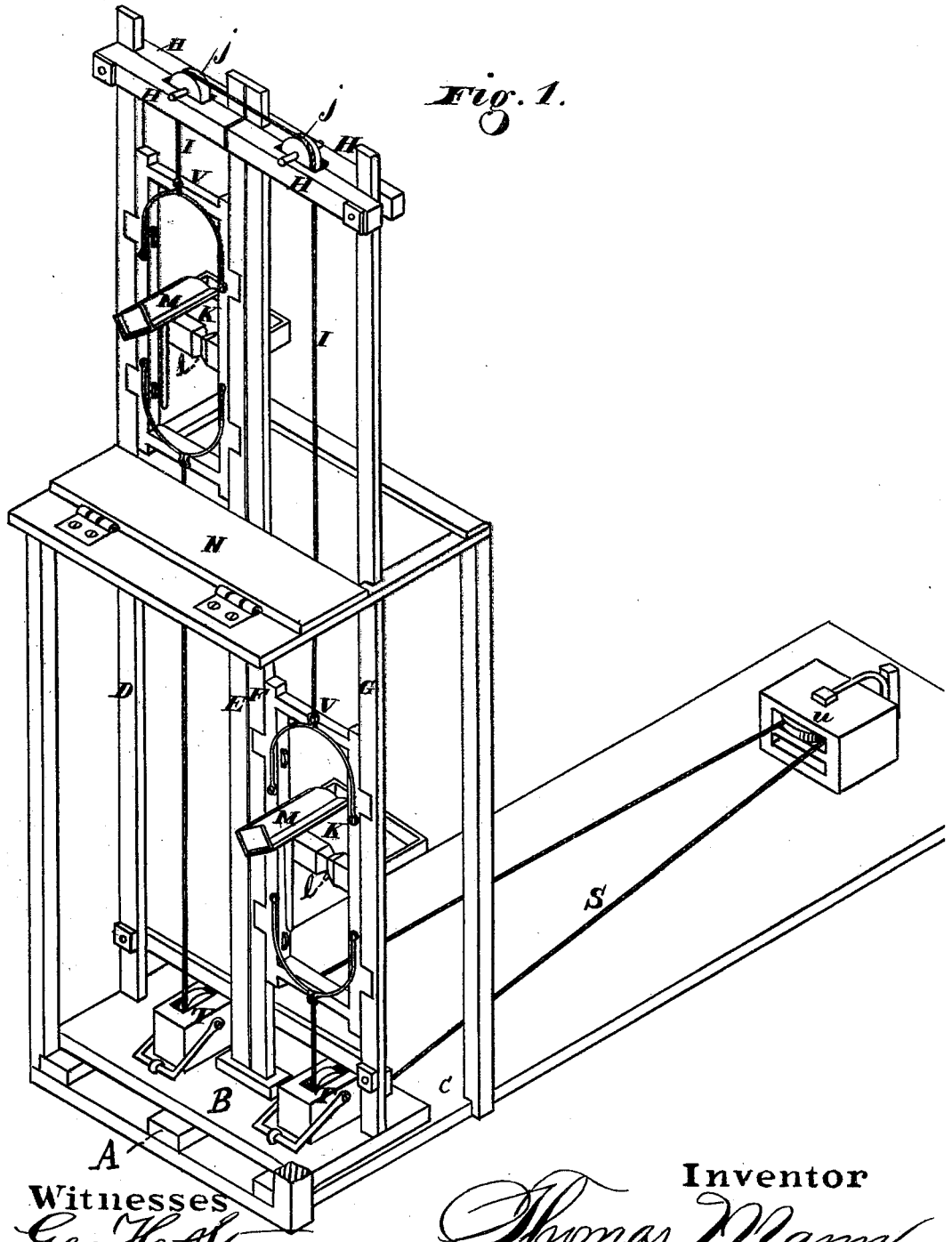
T. MANN.

BRICK AND MORTAR ELEVATORS.

No. 181,085. Patented Aug. 15, 1876.

Fig. 1.



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THOMAS MANN, OF PORTLAND, OREGON.

IMPROVEMENT IN BRICK AND MORTAR ELEVATORS.

Specification forming part of Letters Patent No. **181,085**, dated August 15, 1876; application filed July 13, 1876.

To all whom it may concern:

Be it known that I, THOMAS MANN, of Portland, Multnomah county, State of Oregon, have invented Improvements in Brick and Mortar Hoisting Machines; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to certain improvements upon the machine for hoisting brick and mortar to the different floors of buildings in the course of construction for which Letters Patent No. 86,932 were issued to me on the 16th day of February, 1869.

My invention consists in the construction of an adjustable frame, as hereinafter more specifically described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of my elevator.

Let A B C represent a base-frame, which I use when the machine is set up outside of a building; but when it is set up inside of a building, the joists of the first floor will serve the purpose of this frame. D E and F G are the upright guide-posts, between which the cages or carrying-frames V V are guided when they are being hoisted or lowered.

The cross-timber H, which connects the upper ends of these uprights, can be made in one single length when the uprights are arranged in the same plane; but as it is sometimes necessary to place the two pairs of posts at an angle, or any variable distance to each other, I make the cross-piece in two lengths, each of which is long enough to connect one pair of uprights, so that the posts can be adjusted to suit the arrangement of the joists of the first floor and the spaces between them.

The cross-timber H is comprised of two parallel pieces, one of which is placed on each side of the uprights, and is secured by bolts passing through both the pieces and uprights.

The rope I, which connects the upper end of the two cages or carrying-frames, passes over pulleys *j j* in the cross-pieces above the frame.

Heretofore these pulleys have been arranged directly between the two uprights of each pair, so that the middle uprights had to be cut off flush with the upper side of the cross-timber, in order to let the rope pass across from one pulley to the other. This occasioned a waste of lumber or scantlings used for uprights, as it seldom occurred that the same length of uprights would answer for two buildings. To obviate this difficulty I mortise the cross-piece H for the reception of the pulleys on one side of the uprights, so that the rope can pass over the pulleys and across on one side of the uprights, thus allowing any desired length of scantling to project above the cross-timber. I can then use the same uprights or scantlings on any number of buildings without waste, as I can splice them without interfering with the rope I; and in order to accommodate the pull upon the frames to the shifted position of the pulleys, I attach the rope I to one side of the top piece of the frames.

The shafts which support the pulleys *j j* simply rest in seats formed in the cross-timbers, so that they can be lifted out when it is desired to change the position of the cross-piece. The cages or carrying-frames I construct in the ordinary manner, only I supply each with a table or shallow box, K, which extends across from one side to the other of the frame at any convenient point.

In one side of each box I cut a V-shaped notch, *l*, both in its upper edge and side, so that the bottom of the hod M can rest in the notch in its edge, while its handle fits in the notch in the side, thus holding the hod in a steady and firm seat.

The boxes K are wide enough to receive the open end of the hod, so that any mortar or bricks which may fall from the hod during its ascent will be caught in the box, and thus be prevented from falling upon those below.

N is a hinged trap or platform, which is raised when the cage is being hoisted with its load, so as to let the hod pass; but when the hod has passed, this platform is lowered, so that the workman or hod-carrier can stand upon it when removing the hod from the cage.

S is the draw-rope, one end of which is attached to the lower rail of each frame, while each end passes down through a pulley-block, T, below, while the middle of the rope passes around a main pulley, U, which is located at

a suitable distance from the machine. Horse-power is usually applied to raise and lower the frames.

The improvements above described are the result of several years' experience with my original machine, and they render the machine complete and easily adapted to any class of work.

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

In combination with two pairs of parallel upright guiding-posts, D E and F G, each of which serves to guide a sliding frame or carriage, V, and both of which carriages are suspended by the same rope, the upper cross-timber H, made in two parts, so that the frames can be adjusted to any desired angle to each other, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

THOMAS MANN. [L. S.]

Witnesses:

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CHAS. G. PAGE.