

*W. M. Lloyd Hoisting App<sup>s</sup>*

116607

*Fig. 1.*

PATENTED JUL 4 1871

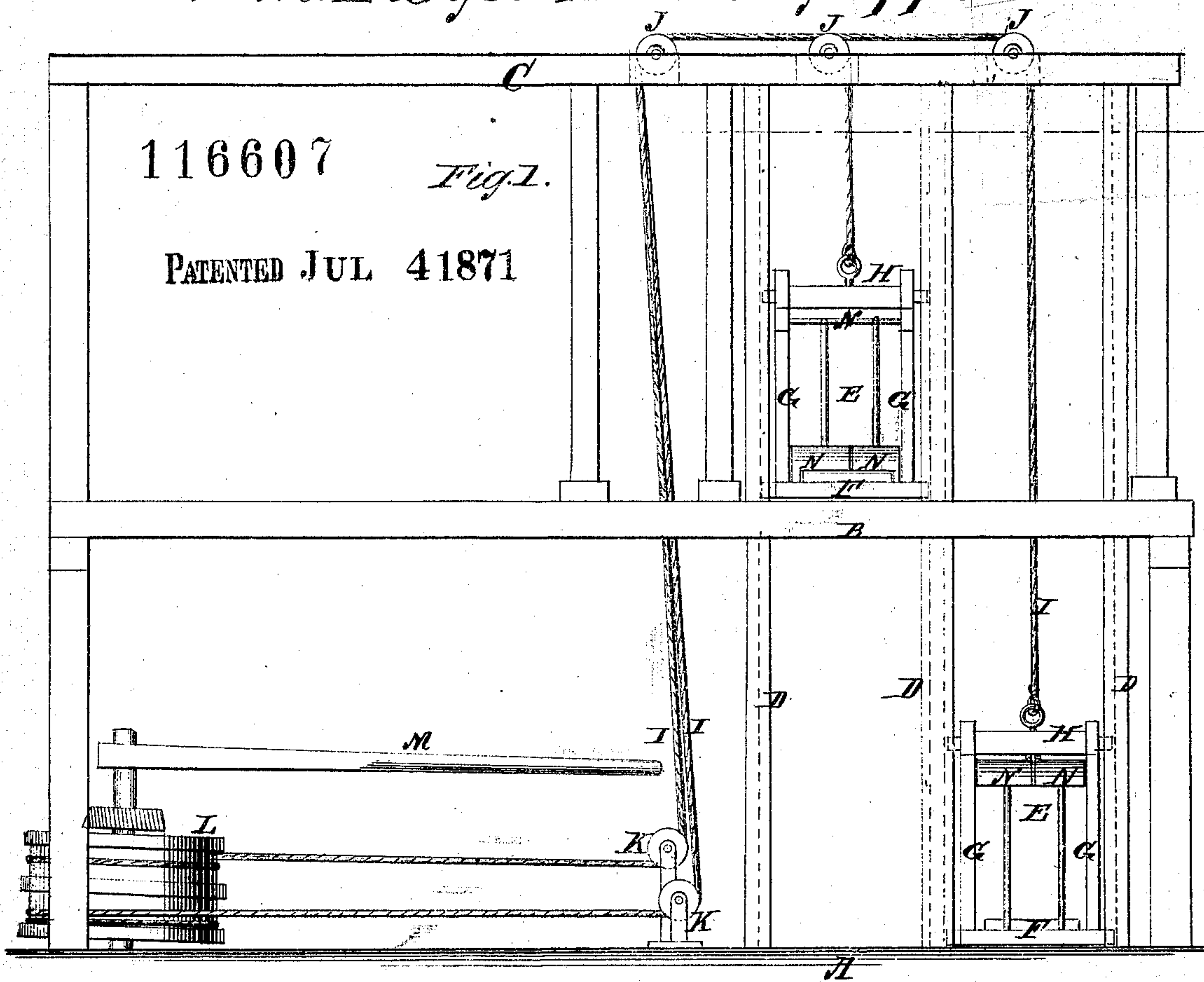
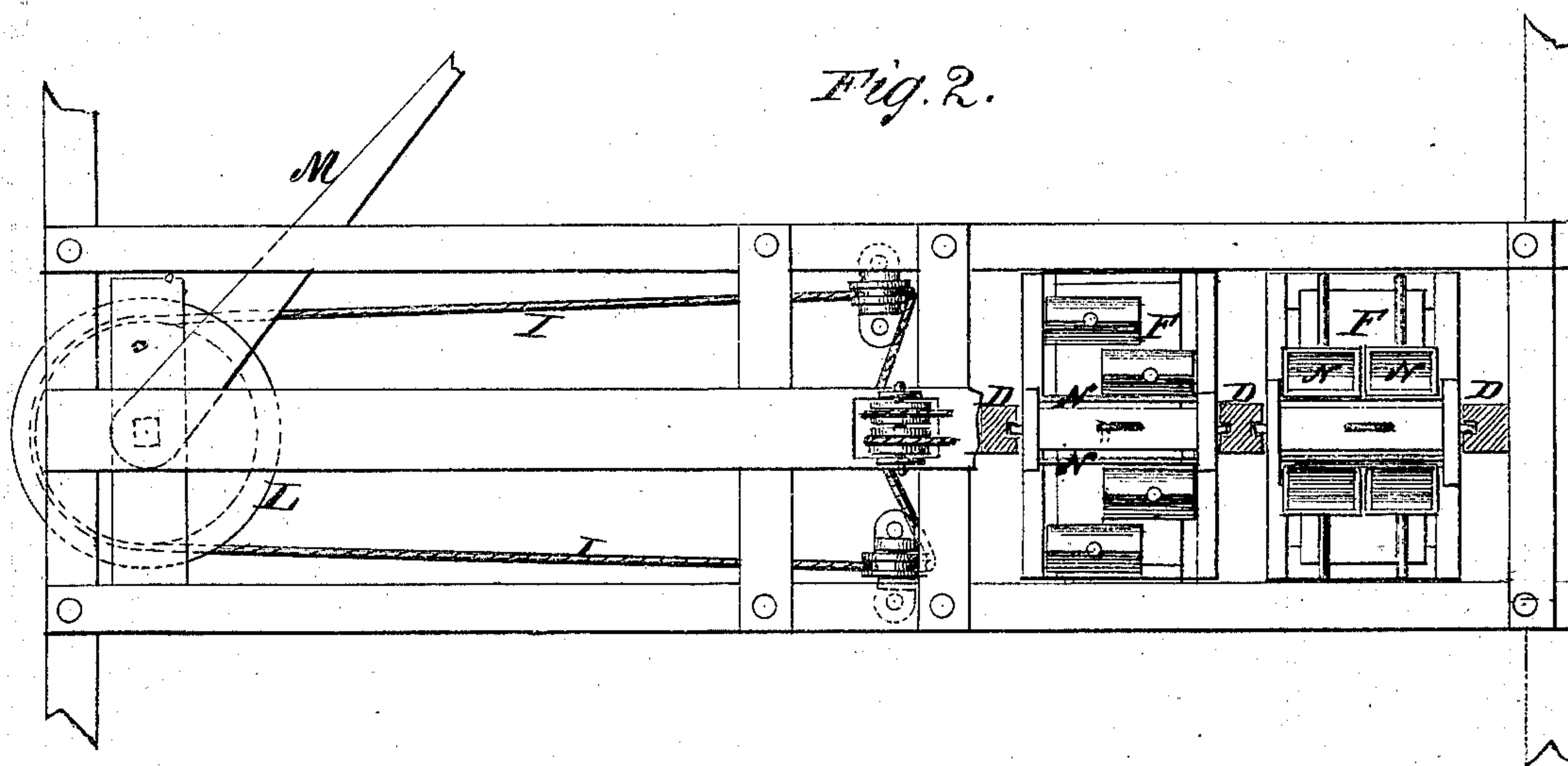


Fig. 2.



**Witnesses:**

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# UNITED STATES PATENT OFFICE.

WILLIAM M. LLOYD, OF NEW YORK, N. Y.

## IMPROVEMENT IN HOISTING-MACHINES.

Specification forming part of Letters Patent No. 116,607, dated July 4, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM M. LLOYD, of the city, county, and State of New York, have invented a new and useful Improvement in Hoisting Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

The object of this invention is to provide cheap and convenient means for elevating bricks and mortar in the erection of buildings, and to be employed for all purposes for which it may be adapted; and it consists in two platforms or cars, with the parts connected therewith, so constructed and arranged as to rise and fall alternately, and to balance (or nearly balance) each other, the arrangement being as hereinafter described.

In the accompanying drawing, Figure 1 represents a side elevation of the apparatus. Fig. 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

The line A is the basement or lower floor of a building. B is the second floor; and C, the third floor. D D D are standards, guides, or ways, which are extended from the lower floor upward from one floor to another as the building progresses. The ways are constructed so as to splice onto each other as they are required, and are grooved or otherwise made to guide the cars or platforms in ascending and descending. E E represent the cars or platforms upon which the load is placed for raising and lowering. F is the platform proper or bottom of the car. The car is composed of the bottom F, side pieces G or uprights, and a cross-piece, H, to the latter of which the hoisting-rope I is attached. From the cars the hoisting-ropes pass upward over pulleys J, supported on top of the floor-timbers, as seen in Fig. 1, and from thence down to the lower floor and under pulleys K K, and then extend horizontally onto the driving-drum L. One of the ropes is attached to one side and the other rope to the other side of the drum, so that when the drum is turned round or revolved, one rope will be wound up around the drum and one of the cars elevated, while the

other rope will be unwound and the other car will descend.

A horse may be attached to the lever M for revolving the drum, or the drum may be revolved by hand, or steam-power may be used, the motion of the drum being reversed as often as the cars reach their limit of ascent or descent. Any of the well-known devices for stopping and holding the cars in any desired position may be adopted.

N represents hods for containing the mortar and bricks as placed on and supported by the cars in ascending and descending.

This apparatus is well adapted for use in stores and warehouses, for raising and lowering goods and merchandise; but I design it more especially for raising building materials, thereby substituting horse-power or other motive power for the laborious and slow process now in common use for that purpose. To the builder the advantages of this mode of elevating his brick, mortar, and stone or other material used, are of the greatest importance, as, by the common method, he is compelled to double the number of his hod-carriers as his building progresses from one story to another.

This apparatus is simple and cheap, and may be constructed and kept in repair without resorting to the iron machine-shops for gear-wheels or other expensive portions of ordinary elevators.

From one to the other of the uprights G of the cars there are one or more horizontal rods, N, for supporting the hods in an upright position when loaded, there being a hook on the hods which hooks over the rod. The rods N also serve to bind the uprights together and strengthen the car.

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

The cars E, stands or guides D D D, ropes I I, pulleys J and K, and drum L, constructed and arranged to operate substantially as and for the purpose hereinafter shown and described.

The above specification of my invention signed by me this 16th day of January, 1871.

Witnesses: WILLIAM M. LLOYD.

GEO. W. MABEE,  
ALEX. F. ROBERTS.

*Wm M Lloyd*