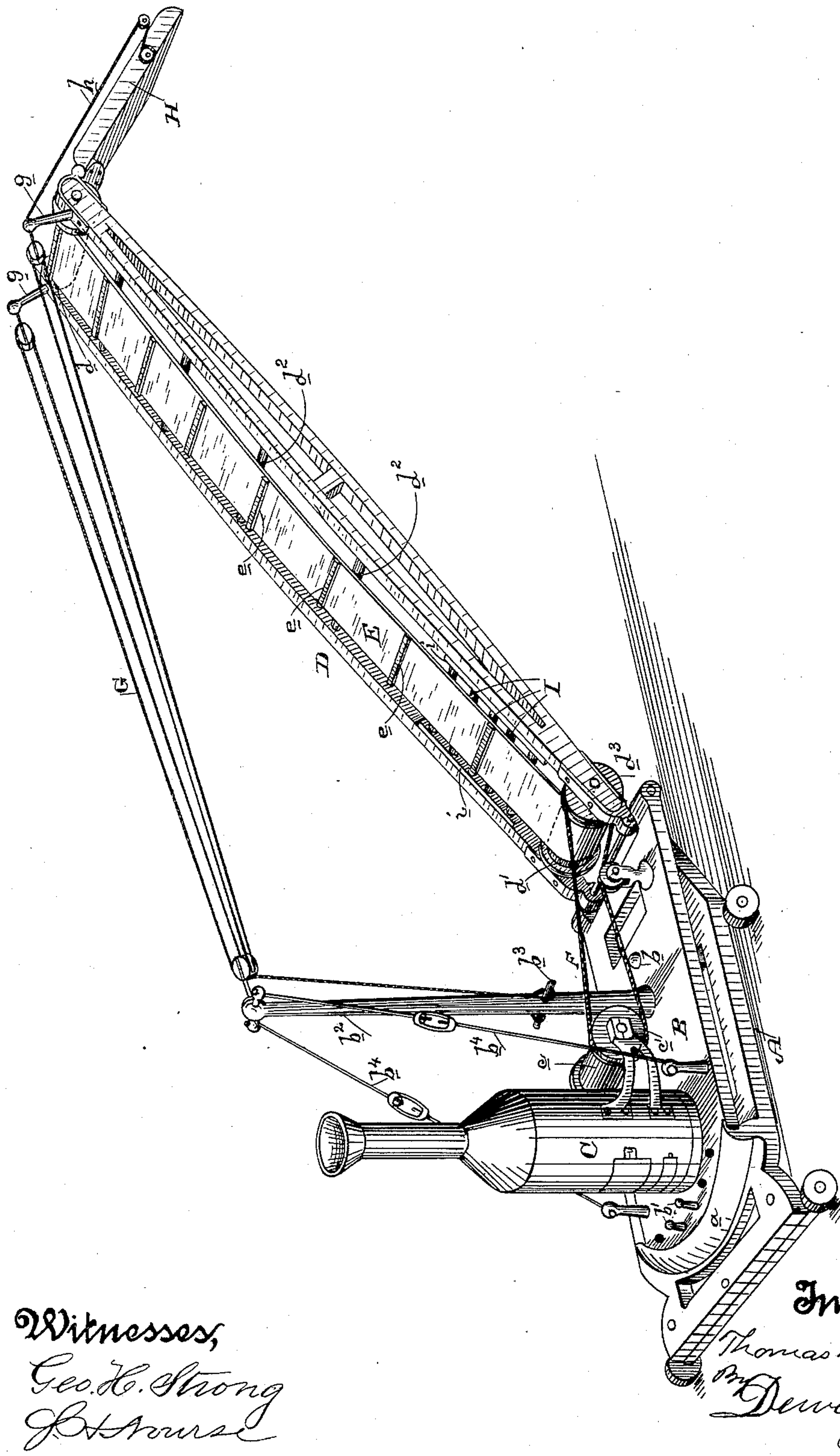


(No Model.)

T. McCONNELL.
LOADING ELEVATOR.

No. 432,637.

Patented July 22, 1890.



Witnesses,
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UNITED STATES PATENT OFFICE.

THOMAS McCONNELL, OF SAN FRANCISCO, CALIFORNIA.

LOADING-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 432,637, dated July 22, 1890.

Application filed April 4, 1890. Serial No. 346,610. (No model.)

To all whom it may concern:

Be it known that I, THOMAS McCONNELL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Loading-Elevators; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of elevating apparatus which is used for the transportation of goods from one level to another, and especially for use in loading ships.

My invention consists in the novel constructions, arrangements, and combinations, hereinafter fully described, and specifically pointed out in the claims.

The object of my invention is to provide a simple and effective elevator of this class which is adapted to be self-supporting and adjustable to any suitable inclination, thereby specially adapting it for the loading of ships.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a perspective view of my device.

A is a wheeled frame or truck, to which is pivoted at *b* a swinging platform or turn-table B, which carries the donkey-engine C, of which *c* may represent the winding-drum. This turn-table or platform has its rear end fitted in a grooved guide *a* on the wheeled frame, and it is fixed in any position to which it may be turned by means of a pin or pins *b'* dropped down through holes in its rear end and entering corresponding holes in the frame below. Hinged to the forward end of this turn-table is the elevator-frame D. This carries in its upper end a guide-drum *d* and in its lower end a driving-drum *d'*, while throughout its length on its upper surface it carries a series of supporting-rollers *d''*.

E is an endless elevator-belt provided with suitable cross bars or slats *e*. This belt is mounted in the elevator-frame with its ends passing over the drums *d* and *d'* and supported in its course by the rollers *d''*.

Travel is imparted to the elevator-belt by means of a belt F, which extends from a pulley *c'* on the winding-drum *c* of the engine to a pulley *d''* on the lower or driving drum *d'*.

The elevator-frame D may be raised or lowered to any inclination, turning about the

hinge at its lower end, and it is held to its inclination by the block and tackle, (represented by G,) one end of which is connected with stanchions *g* on the upper end of the elevator-frame and the other end is connected with a rigid stanchion *b''* on the turn-table. The fall of the tackle extends down to a cross-cleat *b'''* on the stanchion, whereby it is held. The stanchion itself is held rigid by the guys *b''''*, as shown.

Hinged to the upper end of the elevator-frame D is the discharge chute or spout H, the inclination of which is adjusted by the ropes *h*.

In the lower portion of the elevator-frame D, just below the elevator-belt, near its lower end, are rollers I, set close together, the purpose of which is to avoid wear and injury to the belt by the constant throwing of the goods upon it at this end. These resisting-rollers are mounted at their ends in plates of metal *i* on the inner surface of the sides of the frame D, so that they will not wear out readily. At this point, where the goods are thrown upon the belt, there is a constant and decided wear, and it becomes necessary to overcome this by the use of the closely-set rollers.

The operation of the elevator is as follows: It will be observed that it is self-supporting, and therein it differs from those elevators for loading ships, the upper ends of which are adapted to be fitted upon and secured to the ship's rail. Elevators of this class are defective in that the ship is always in motion, and is closer or nearer to the wharf at different times, and is continually moving to and from it, so that the elevator itself is on the move and it is difficult to load it. There is also the disadvantage in these elevators of getting loose and falling into the water. In my elevator these disadvantages are obviated by carrying the whole device positively by the wheeled frame A, so that it is wholly independent of the ship and stands alone. It may be set to an inclination to accommodate the height of the ship or the position of the discharge, and may be there held firmly and rigidly. It may also be turned to any angle to suit the circumstances of each case by turning the platform or turn-table B on the wheeled frame.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A loading-elevator consisting of a wheeled frame having the fixed curved guide α at one end, a platform pivotally mounted on said frame and having its forward end adjustably held in said guide, a power device carried by said platform, a frame hinged to the rear of the platform having a traveling belt mounted on rollers therein, a block and tackle for adjusting and holding said hinged frame, and a connection from the power device to one of the belt-rollers, whereby the belt is operated, substantially as herein described.

2. A loading-elevator consisting of the wheeled frame A, the pivoted platform or turn-table B on said frame, and the pins at the rear thereof for holding said platform or turn-table in the position to which it is ad-

justed, the engine and power mechanism on said platform and the stanchion thereon, the frame D, hinged to the forward end of the platform or turn-table and having the drums and supporting-rollers, the block and tackle connecting the upper end of the frame with the stanchion of the turn-table, whereby the frame may be held at and adjusted to various inclinations, the endless traveling elevator-belt mounted upon the drums and rollers of the frame, and the hinged spout at the upper end of the frame, substantially as herein described.

In witness whereof I have hereunto set my hand.

THOMAS McCONNELL.

Witnesses:

S. H. NOURSE,
H. C. LEE.