(No Model.)

D. DOCKSTADER.

HAY ELEVATOR.

No. 248,149. Patented Oct. 11, 1881.

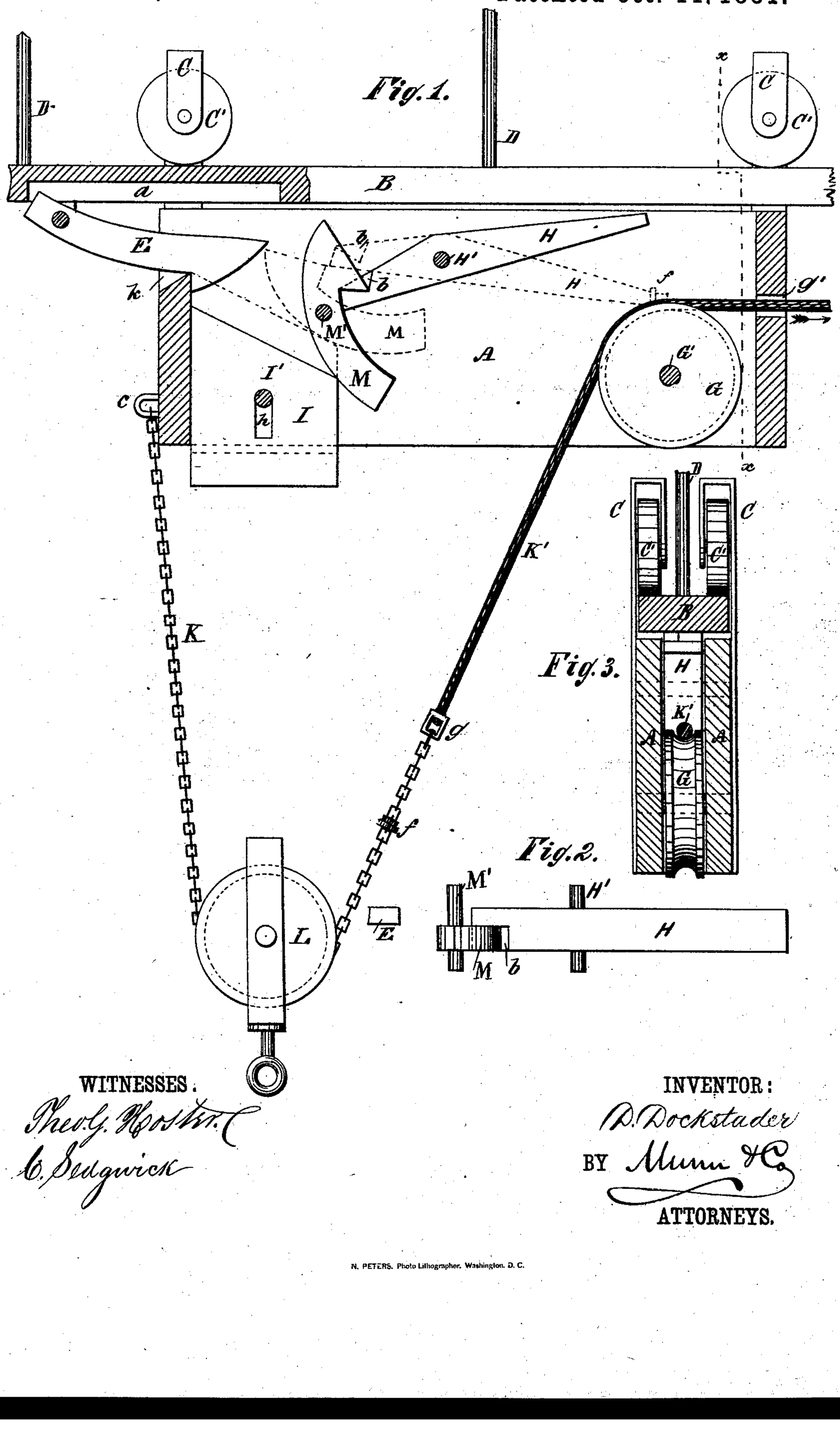

Fig. 1.

Fig. 3.

Fig. 2.

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DANIEL DOCKSTADER, OF FONDA, NEW YORK.

HAY-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 248,149, dated October 11, 1881.

Application filed July 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, DANIEL DOCKSTADER, of Fonda, in the county of Montgomery and State of New York, have invented a new and Improved Hay-Elevator, of which the following is a specification.

The object of this invention is to furnish an improved elevator and carrier; and to this end the invention consists of an improved swinging dog and a catch operating in combination with the sliding block of the elevator, all of which will be hereinafter set forth.

In the accompanying drawings, Figure 1 is a sectional side elevation of the elevator in position. Fig. 2 represents a plan of the improved catch and dog. Fig. 3 is a vertical end section on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the elevator-frame, suspended from a track, B, by means of straps and wheels C C′, respectively, the straps C being secured on opposite sides of the frame A and extended upward, and having their ends turned over at right angles, and having pivoted in them the wheels C′, that rest upon the track B. Said track B is designed to be suspended from the rafters of a building by suitable rods, D.

In the under face of the track B is a longitudinal socket, *a*, in which is pivoted a catch, E, lying lengthwise with said socket *a*, whose purpose will be hereinafter set forth.

Within the carrier-frame A is a sheave, G, that is set on a transverse shaft, G′, and revolves in a vertical plane; and placed higher up in frame A, and a short distance to the left, as shown in Fig. 1, is the dog H, pivoted on a transverse rod, H′, in such a position that the point of said dog H shall reach to the periphery of said sheave G, and serve to stop the elevating-chain K at the proper point, as will be hereinafter described. Said dog H is provided with a triangular socket, *b*, in one side of the end farthest from the sheave G, for the engagement therein of the catch M, as will be described.

The catch M is curved, and has a pointed and hooked head, as shown, and is pivoted on a transverse rod, M′, in rear and a little below the dog H, with its concave edge and hook toward the said dog H, and with its head uppermost.

The elevating-chain K has one end made fast to a staple, *c*, fixed in the rear end of the frame A, while its other end is attached by a swivel, *g*, to a rope, K′, which is passed over the sheave G and out of an orifice, *g′*, in the front end of the frame A. This chain K is used instead of a rope, because of its superior durability under contact with the block L and dog H.

A sliding block, I, provided with a vertical slot, *h*, extending through it, is suspended in frame A on a transverse rod, I′, that passes through the frame A from side to side thereof, so that the enlarged head of said block I hangs below said frame A.

On the bight of the chain K is a pulley-block and hook, L, and on said chain K is rigidly secured a ring, *f*, of leather, metal, or other material, against which the point of the dog H is to engage. When the parts are in place, as shown in Fig. 1, the elevator is in position for loading, the hooked end of the catch E being entered in the orifice *k*, made in the rear end of the frame A, and thereby holding said frame A fixed. When the hay-fork, (not shown,) which is designed to be connected with the block and hook L, is loaded, the chain K and rope K′ are drawn in the direction of the arrow, Fig. 1, and the block L thereby drawn upward in contact with the sliding block I, and forces said block I up against the convex edge of the catch M, thereby moving said catch M, so as to disengage it from the socket *b* of the dog H, and permit the latter to fall with its point upon the periphery of the sheave G. At about the same time the block I is also brought in contact with the catch E, thereby raising the latter, so that it can pass out of the orifice *k*. Thus the elevator A is free to move, and the load suspended from the block and hook L is held at suitable elevation, the chain K being prevented from being drawn back by the engagement of the point of the dog H upon said chain K just in rear of the stop or ring *f*, which latter by this time has arrived at the top of the sheave G. By means of the rope and chain K′ K the elevator A is then moved to the desired place for depositing the load. When the load is removed, said elevator A may be moved back again for another load, and the hooked end of the catch E, entering the orifice *k*, passes to one side of the catch M and over the short end of the dog H, and, pressing said short end down,

thereby disengages the point of said dog H from the stop or ring *f*, and thus permits the block and hook L to descend for another load. At the same moment the block I, being released from the upward pressure of the block L, falls by its own gravity back to its primary position, and thereby leaves the catch M free to engage its hook in the socket *b* of the dog H, and thereby hold the latter in the position shown in full lines, Fig. 1. The catch E, on being disengaged from the dog H by a slight forward movement of the elevator A, immediately falls and engages its hook on the inner side of the orifice *k*, thereby holding the said elevator A in a fixed position until another load is elevated.

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

1. In a hay-elevator, the combination, with the carrier-frame A and the pulley-block L, of the dog H, provided with socket *b*, the catch M, and the sliding block I, substantially as and for the purpose set forth.

2. In a hay-elevator, the combination, with the track B, provided with the catch E, and the pulley-block L, of the carrier-frame A, provided with the dog H, the catch M, and the sliding block I, substantially as and for the purpose set forth.

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Witnesses:
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