A. H. MASON.

Hay-Elevator.

No. 214,434. Patented April 15, 1879.

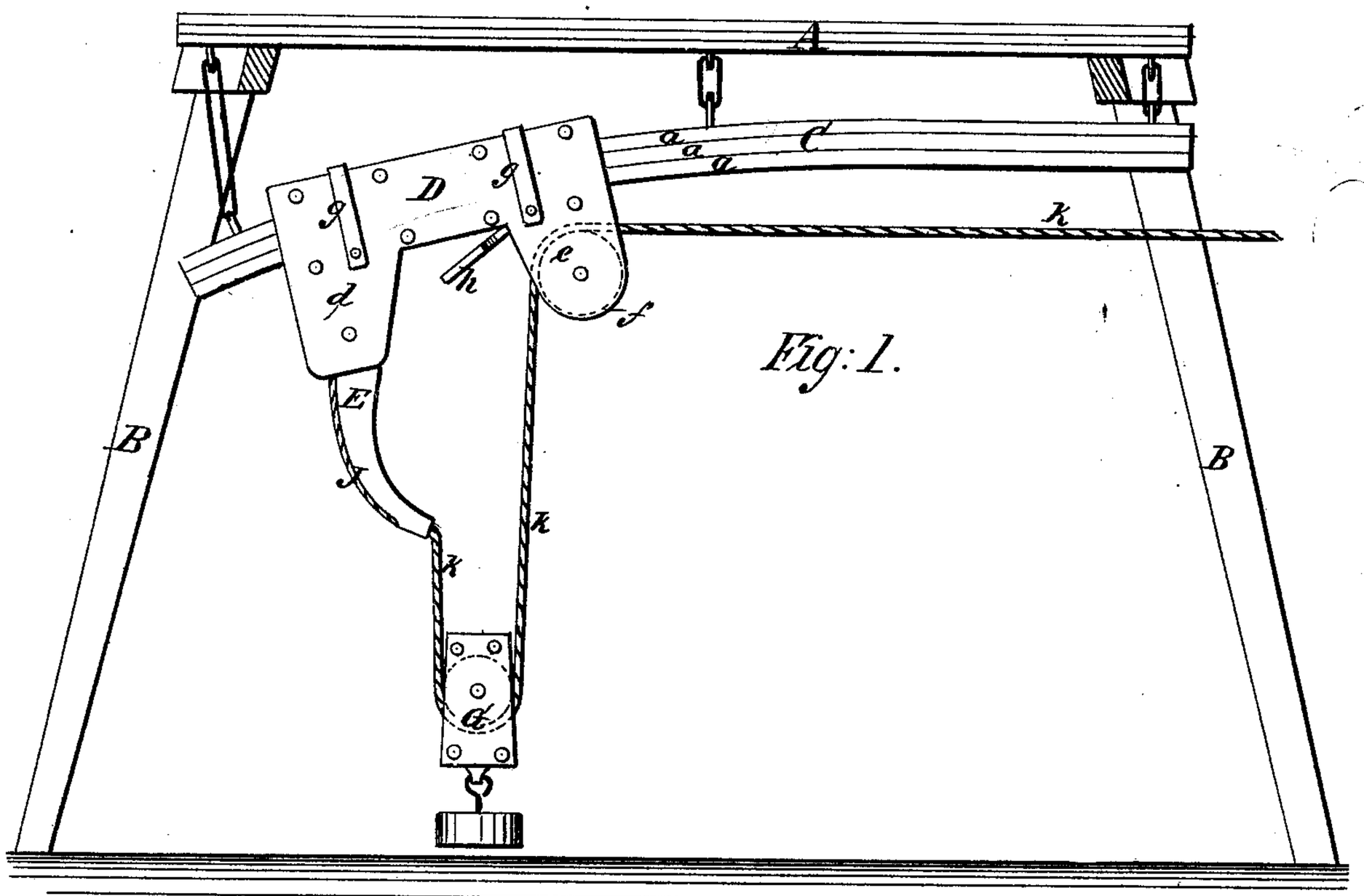



Fig: 1.

Fig: 2.

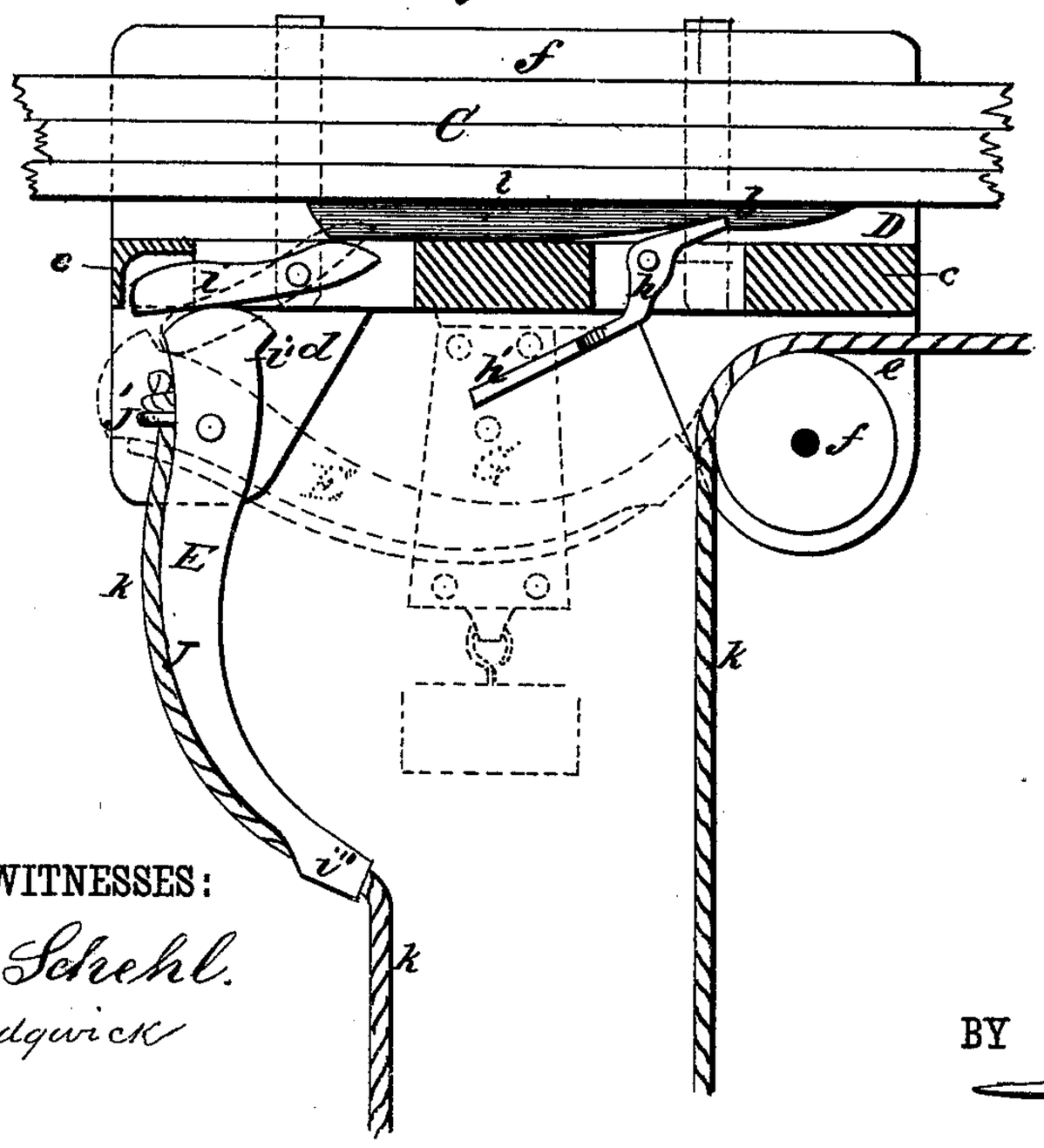
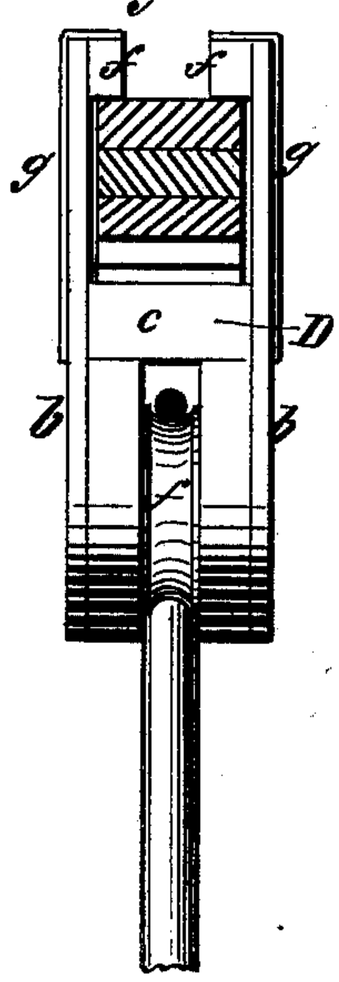



Fig: 3.




WITNESSES:

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ALBERT H. MASON, OF NILES, OHIO.

## IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **214,434**, dated April 15, 1879; application filed October 4, 1878.

*To all whom it may concern:*

Be it known that I, ALBERT H. MASON, of Niles, in the county of Trumbull and State of Ohio, have invented a new and Improved Hay-Elevator, of which the following is a specification.

This invention relates to improvements in the construction and arrangement of that class of hay-elevators that are suspended from the top of the barn, and are so arranged that they lift the hay from the wagon and transport it to the proper place in the mow for distribution.

It consists, first, of an elevator-block running on a curved track suspended from the top of the barn, said elevator-block carrying a lever pivoted at one end and provided with a rope running over a pulley in the front of the car, the arrangement being such that when the fork is loaded the lever is drawn up to a horizontal position, and the pulley-block strikes the latch holding the elevator-block in place, releases it, and the load is then drawn forward, and a dog falling behind the lever holds it in a horizontal position until it reaches the place in the haymow where it is to be deposited; secondly, it consists of the manner of securing the car while being loaded and the arrangement for tripping the latch.

In the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of my improvement. Fig. 2 is a vertical and longitudinal section of the elevator-block; and Fig. 3 is a vertical and transverse section of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is a beam, which is designed to represent the ridge-pole of a barn; and in order to illustrate the working of the invention it is supported by the trestles B B, one at either end. Suspended from the beam A is a bent track, C, the lower end of which is suspended just over the place where the wagon is placed to be unloaded. This curve in the track only extends part of the length of the track, and that part clear of the haymow, while the part of it immediately over the haymow is straight. The track C is made by nailing together a number of boards, *a a a*, laid side by side. By this means a track of great strength is made at little expense, and requiring but little skill to make it. The bend can be given to it easily by first nailing the end of the straight portions together, and then so much of it as is designed to be straight, and leaving the remainder unfastened until the proper bend is given, when the boards are bolted together and the end squared off, or allowance may be made for the bending in measuring off the boards. The bend enables the elevator-block to be drawn back to its position easily, as when in good order it will run down by its own gravity. D represents the elevator-block. It is formed of the two plates *b b*, placed parallel, with the dividing-piece *c* between, and secured by bolts passed transversely through. At the ends are the projecting portions *d e*, in the former of which is pivoted the curved lever E, and in the latter the pulley F, there being an open space between the two parts *d e*. To the upper inside faces of the plates *b b* are fixed the cleats *f f*, secured by bolts, and, as additional security and to distribute the strain, I place on each side of the block two clamps, *g g*, bolted at the lower ends through the side plates *b b*, and dividing-piece *c*, and bent over at the top so as to clamp the cleats. Thus the weight is distributed between the cleats and the dividing-piece *c*, making the block much stronger than it would otherwise be; and as the cleats wear rapidly, these are so arranged, being merely bolted and clamped in place, that they can be readily taken out and new ones substituted when worn. This block is placed upon the track C with the cleats supported on the upper surface thereof, and sliding thereon in the usual manner of elevator-blocks. To the dividing-piece *c* is pivoted, at the pulley end of the elevator-block, the catch or pawl *h*, with a weighted projecting lever, *h'*, hanging down in the space between the two portions *d e*. At the opposite end is pivoted a dog, *i*, which engages the notch *i'* in the curved lever and holds it in a horizontal position, from which it falls as soon as the dog is released. The curved lever E has at its free end a socket, *i''*, and in its convex surface or back a groove, J, and at the rear end of the groove a staple, J'. A rope, *k*, is passed over the pulley *f*, thence through the socket *i''* in the groove J, and thence

through the staple J′, where it is secured by a knot tied in its end, or in any other suitable manner. The rope *k* also carries between the lever and pulley the freely-moving pulley-block G, which carries the fork. On the bent portion of the track underneath, at a point where it will readily engage the pawl *h* when the elevator-block reaches its lowest point, is fixed a metal catch, *l*, to engage the pawl and thus hold the block while the fork is being loaded.

The operation of my improvement is as follows: When the wagon is in position to be unloaded the elevator-block is drawn down the track until it occupies the position shown in Fig. 1. In reaching this point the curved lever, which was held in a horizontal position by the dog *i*, as indicated by the dotted lines in Fig. 2, when on the straight part of the track over the haymow, is released by the dog *i* striking the extension of the catch *l* and knocking it out, and it falls into a pendent position, and at the same time the pawl *h* falls into the catch *l* and holds the elevator-block, so that it cannot move until the proper time. The rope is then paid out and the fork is lowered, loaded, and is then drawn up. When it reaches about to a horizontal position the upper part of the pulley-block G is drawn against the extended portion *h′* of the pawl, knocking the pawl out of the catch, and thus allows the elevator-block with its load to be drawn forward, and when the dog *i* passes beyond the extension of the catch *l* it drops into the notch *i′*, and holds the lever E so that it maintains a horizontal position until the proper place in the mow is reached, when the fork is dumped of its load, when the operation is repeated.

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

1. As an improvement in hay-elevators, the elevator-block provided with the curved lever E, pawl *h*, dog *i*, and rope *k*, carrying pulley-block G, the latter operating by means of the rope to unfasten the catch *h* to release the elevator-block, in combination with the bent track C, provided with the catch *l*, substantially as hereinbefore described.

2. As an improvement in hay-elevators, the track C for carrying the elevator-block, constructed of boards nailed together and provided with the proper bend, substantially as described.

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Witnesses:
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S. S. HALETON.