

W. H. HAYNES.
Mechanism for Unloading Hay.

No. 168,330.

Patented Oct. 5, 1875.

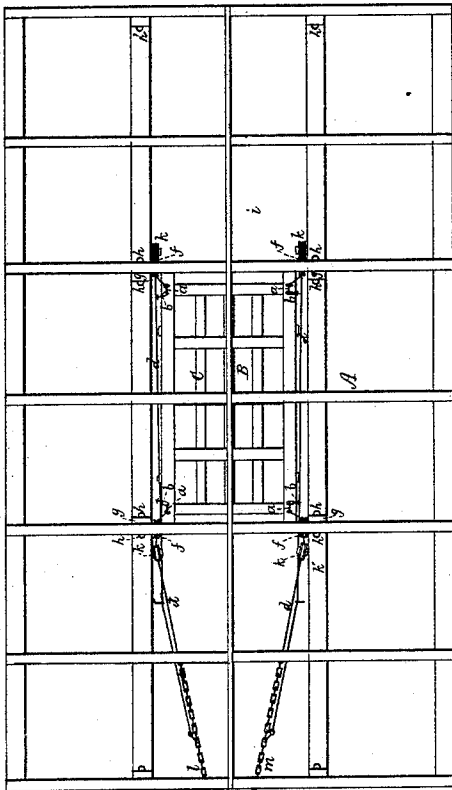


Fig. 1.

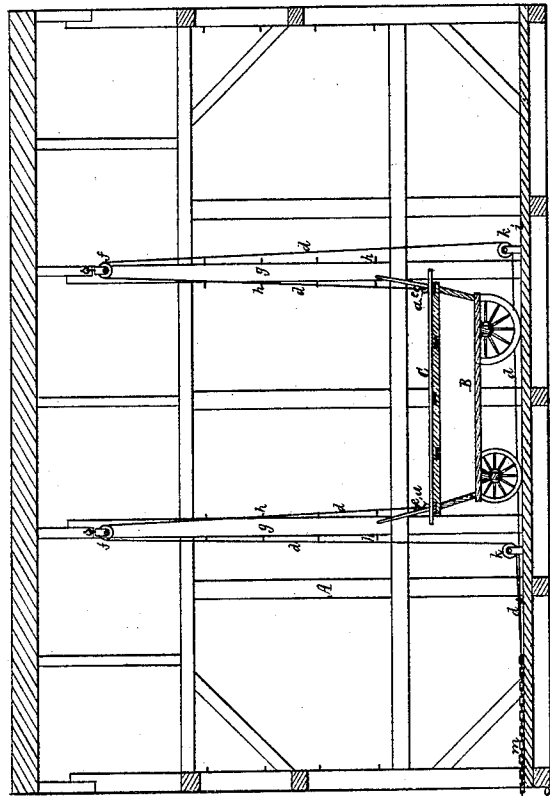
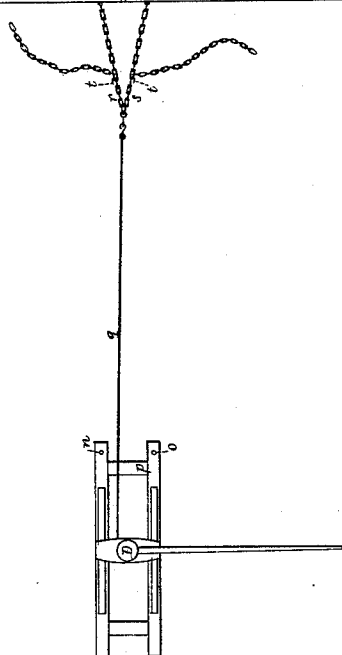


Fig. 3.



Witnesses
S. W. Piper
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by his attorney
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Fig. 2

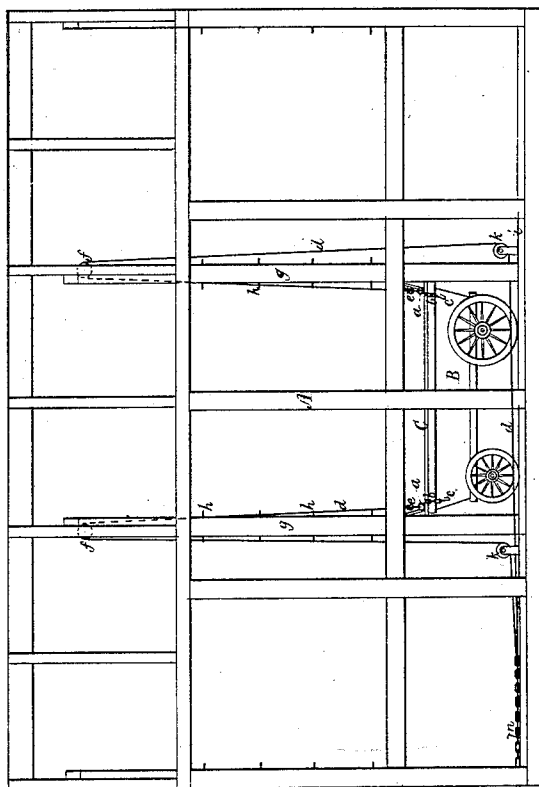
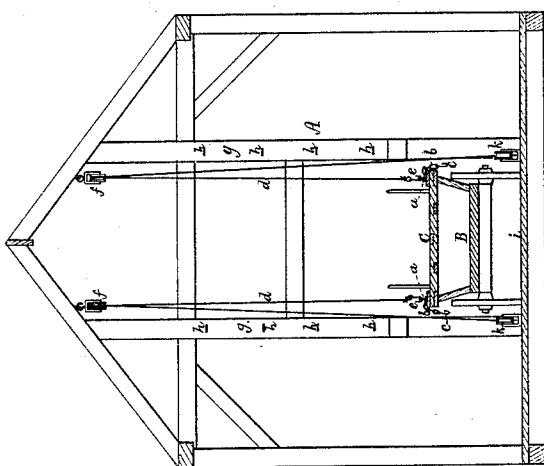


Fig. 4



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UNITED STATES PATENT OFFICE.

WARREN H. HAYNES, OF NORTH SUDBURY, MASSACHUSETTS.

IMPROVEMENT IN MECHANISMS FOR UNLOADING HAY.

Specification forming part of Letters Patent No. **168,330**, dated October 5, 1875; application filed September 9, 1875.

To all whom it may concern:

Be it known that I, WARREN H. HAYNES, of North Sudbury, of the county of Middlesex and State of Massachusetts, have invented a new and useful Mechanism for Unloading Hay into a Barn; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a longitudinal section, and Fig. 4 a transverse section, of the frame of a barn with my hay-unloader and its cart arranged therein.

In such drawings, the said frame is shown at A, and the hay-cart at B. With such cart there is used a platform, C, which, while resting directly upon the cart-body, and the latter is in the field, is to have the hay piled or stacked upon it, after which the cart, laden with the hay, is to be drawn from the field into the barn and upon the floor thereof. At its four corners the platform C is provided with eyebolts *a a a a*, to each of which there is fixed a chain, *b*, furnished at its free end with a hook, *c*. Four hoisting-ropes, *d d d d*, supplied with hooks *e e e e* to hook into the eyes of the said eyebolts, lead upward to and through four blocks or pulleys, *f f f f*, suspended from the rafters of the frame A near vertical posts *g g g g*, arranged in manner represented, and making part of the said frame. Each of the said posts is provided with a series of hooks or staples, *h h*, &c., disposed in it as shown.

Furthermore, directly below the several pulleys *f f f f* there are fixed in standards erected in the barn-floor *i* four leading sheaves or pulleys, *k k k k*, around which the four ropes are passed, in manner as represented. A pair of said ropes on one side of the cart is secured to one of two chains, *l m*, the opposite pair of ropes being fixed to the other chain. These chains are hitched on studs *n o*, extending up from the frame *p* of a capstan, D, arranged as represented. To the barrel *u* of the capstan there is fixed a rope, *q*, terminating in two chains or branch ropes, *r s*, provided at their free ends with hooks *t t*.

With the above-described mechanism a load of hay may be raised to any desirable elevation in the barn and dumped toward either side or end thereof. To accomplish the raising of a load from the cart and the discharging of said load upon the spot or place for its reception, a person should proceed as follows—that is to say, he should hook the raising-ropes into the eyebolts of the platform, and also should hook the chains *r s* into the chains *l m*, after which he should revolve the capstan D, whereby all the raising-ropes will be simultaneously pulled upon. Having raised the platform to the required elevation, he is next to raise it at one side or one end only, so as to cause it to discharge or dump its load. This he can do by hitching the chains *l m* upon the studs *n o*, and next unlocking one of the chains *r s* from its chain *l* or *m*, and again turning the capstan, so as to draw only upon the ropes that may be necessary to effect the tipping of the platform or raising it up into a vertical position. The chains *b b* of that side or end of the platform which is not to be raised may first be hooked into staples of the posts.

With mechanism as above described applied to a barn and a hay-cart, a load from the latter may be raised to any desirable elevation within the building, and subsequently be cast off or dumped, all being accomplished in a very short period of time, and with little labor in comparison to what would be required to effect such by pitchforks in the hands of one or more persons.

Instead of the branch chains *r s* to the capstan-rope I sometimes apply a pulley to it, and connect together the chains *l m* of the raising-ropes *d*, so as to make one chain thereof to go through said pulley.

By hooking the leading-ropes on one side of the platform to hooks in the posts the included side of the platform, when drawn up to the hooks, will stop, the other side continuing to be drawn up so as to tip the platform.

I claim as my invention as follows, viz:

1. The combination of the leading-chains *l m* and the branch chains *r s*, provided with

hooks *t t*, as described, with the capstan D, its studs *n o*, rope *q*, and the four leading-ropes *d d d d*, and their guide-pulleys *f k*, applied to the barn-frame A, and for use with a platform, C, all as represented.

2. The barn-frame A, provided with the four posts *g* and a series of hooks or staples,

h, arranged in each, as and for operation with a platform, its hooked chains, and elevating mechanism as explained.

WARREN H. HAYNES.

Witnesses:

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S. N. PIPER.