(No Model.)

A. J. BURBANK.

HAY CARRIER.

No. 300,208. Patented June 10, 1884.

Fig. 1.

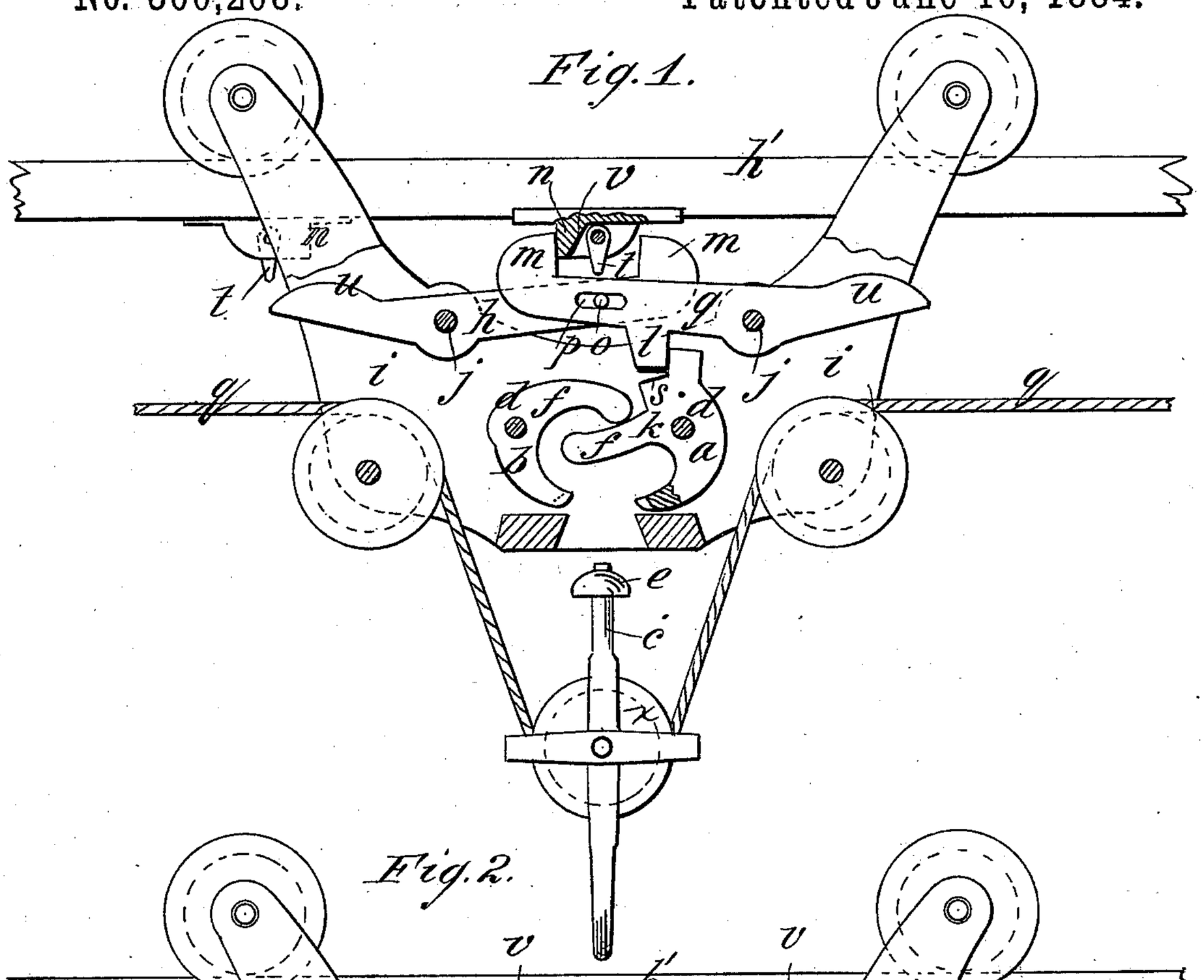
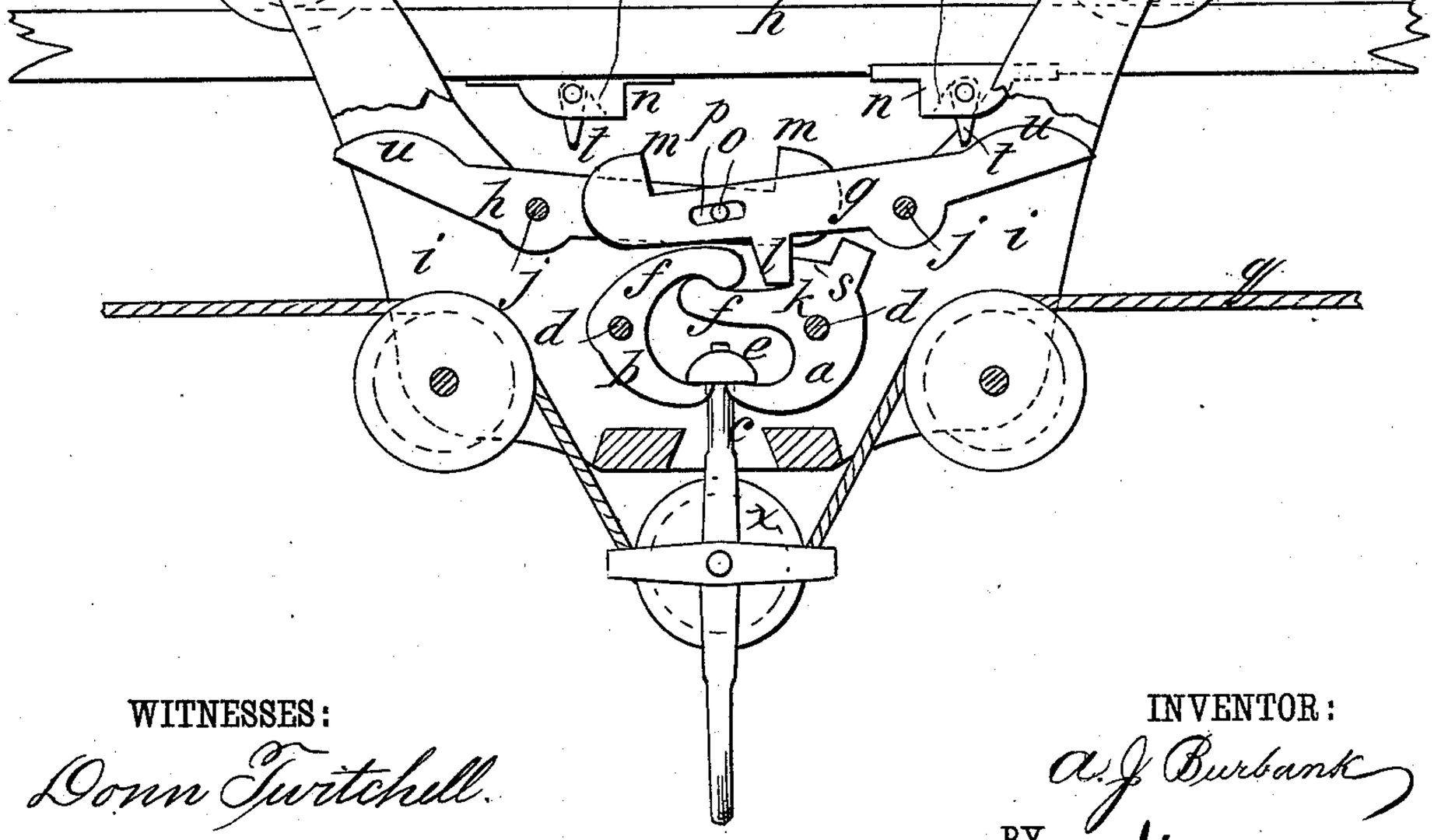


Fig. 2.



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HAY-CARRIER.

SPECIFICATION forming part of Letters Patent No. 300,208, dated June 10, 1884.

Application filed April 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, ABNER J. BURBANK, of Harvard, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Hay-Carriers, of which the following is a full, clear, and exact description.

My invention consists of a duplicate contrivance of catch-hooks for holding up the hay-fork by the head of the shaft of the hay-fork pulley to better advantage than a single catch will, together with an improved arrangement of the locking and tripping levers and the catch and trip blocks, as hereinafter fully described, and specifically set forth in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional elevation of my improved hay-carrier with the shaft of the hay-fork pulley detached from the hooks, and Fig. 2 is a similar view with said shaft engaged by the hooks.

I now propose to employ two pivoted catch-hooks, *a b*, for the better holding of the hay-fork pulley-shaft *c* than a single pivoted hook and a stationary jaw are capable of, and I arrange said hooks opposite to each other on pivots *d*, so as to swing toward and from each other to close and open alike to the opposite sides of the shaft *c*, and engage alike under the opposite sides of its head *e*, whereby the thrusting of the pulley-shaft for shifting the head to one side of the line in which it rises and falls for passing the stationary jaw used with a single hook to hold one side of the head, and the shocks and jars consequent to the blows of the head on the said jaw are avoided, the hooks take better and more secure hold of the head, and there is less friction in the working of the parts. The hook *a* has the arm *f* extending over the shaft of the fork-pulley *x*, to be raised by said shaft for catching and securing it when raised up with its load for being carried away, also for overbalancing the point of the hook and holding it open for allowing the head *e* of the shaft *c* to pass above it for being caught. The hook *b* has a similar arm, *f*, for the same purposes; but it is adjusted so as to overlap the arm of hook *a*, to be raised by the pulley-shaft.

For a better arrangement of the catching and tripping levers *g* and *h* than as heretofore employed, for locking the carrier *i* in the position for hoisting the hay, for tripping it for carrying away the load, and for tripping the fork for descending to get its load, I now propose to arrange said levers directly over the hooks, as shown, on the pivots *j*, by locating the notch *k* of hook *a*, by which the hooks *a b* are locked, together with the shaft *c*, on the upper side of the hook *a*, and locating the stud *l* of lever *g*, that engages said notch *k*, to lock said hooks on the under side of said lever, about midway between the pivot *j* of said lever and the hook *m* of the upper side that catches on the stop-catch *n*, by which the carrier is held in the hoisting position. This enables the lever *h* for the other side of the carrier to be located in the same relative position on that side, so that the two levers *g* and *h* may be connected by the pin *o* and slot *p* directly in the center of the carrier, making a more symmetrical, compact, and efficient arrangement than heretofore made.

It will be seen that the carrier *i* is hooked onto one or the other of the catch-stops *n* of the beam *h'*, on which the carrier runs when the fork is being raised, according as the fork is raised by pulling to the right or left on the rope *q*, said rope being stopped by a knot or other means at the other side of the carrier, to prevent it from running through the carrier, and also being arranged suitably for use in pulling the carrier back to the hoisting-place after discharging its load, as hay elevators and carriers are usually worked; and when the carrier is so hooked the stud *l* of lever *g* rests on the shoulder *s* of hook *a* above notch *k*, and locks the hook *m* with the catch *n*, while the catch-hooks *a b* are open for the reception of the shaft *c*. When the head *e* of the shaft *c* ascends between the points of the hooks *a b*, said head lifts arms *f*, closing the points of the hooks on the shaft under the head *e*, and swinging shoulder *s* of hook *a* from under stud *l*, which falls into notch *k* and locks hooks *a b*, to hold up the load for carrying it away, and the hook *m* at the same time escapes from the catch *n*, to allow the carrier to go.

For lifting stud *l* out of notch *k* for tripping the hooks *a b* to let the fork fall again after returning to the hoisting-place, I now propose to employ the pivoted tripping-dogs *t*, suspend-

ed in the catch-blocks *n* suitably to swing clear of the ends *u* of the levers and allow them to pass by without effect when the carrier is running out to the place of delivery, but so as to be stopped by the shoulders *v* when the carrier runs back, by which they will depress ends *u*, and thus lift stud *l* out of notch *k* and throw up hooks *m*, at the same time releasing the fork-shaft and lodging stud *l* on the shoulder *s*.

The levers *g h* and their catch-studs *n* and trip-dogs *t* are arranged in different planes, so that the catch and dog for one lever do not interfere with the other lever.

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

1. In a hay-carrier having hooks *a b* to hold the shaft of the fork-sheave, and levers *g h* to lock and trip the hooks and the carrier, the hook *a*, having the locking-notch *k* and shoulder *s* located on its top, and the levers *g h* located above the hooks and connected together over the fork-shaft, with the locking-stud *l* of lever *g* about midway between the pivot *j* and the hook *m* of said lever, substantially as described.

2. The combination of the catch-studs *n* and pivoted trip-dogs *t* with the carrier *i*, provided with the pivoted levers *g h*, connected at O, and having the hooks *m* on their adjacent ends, and their outer ends, *u*, adjusted to engage said trip-dogs, the said lever *g* being further provided with a stud, *l*, for holding in open or closed position the pivoted hooks *a b*, substantially as set forth.

ABNER J. BURBANK.

Witnesses:
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