

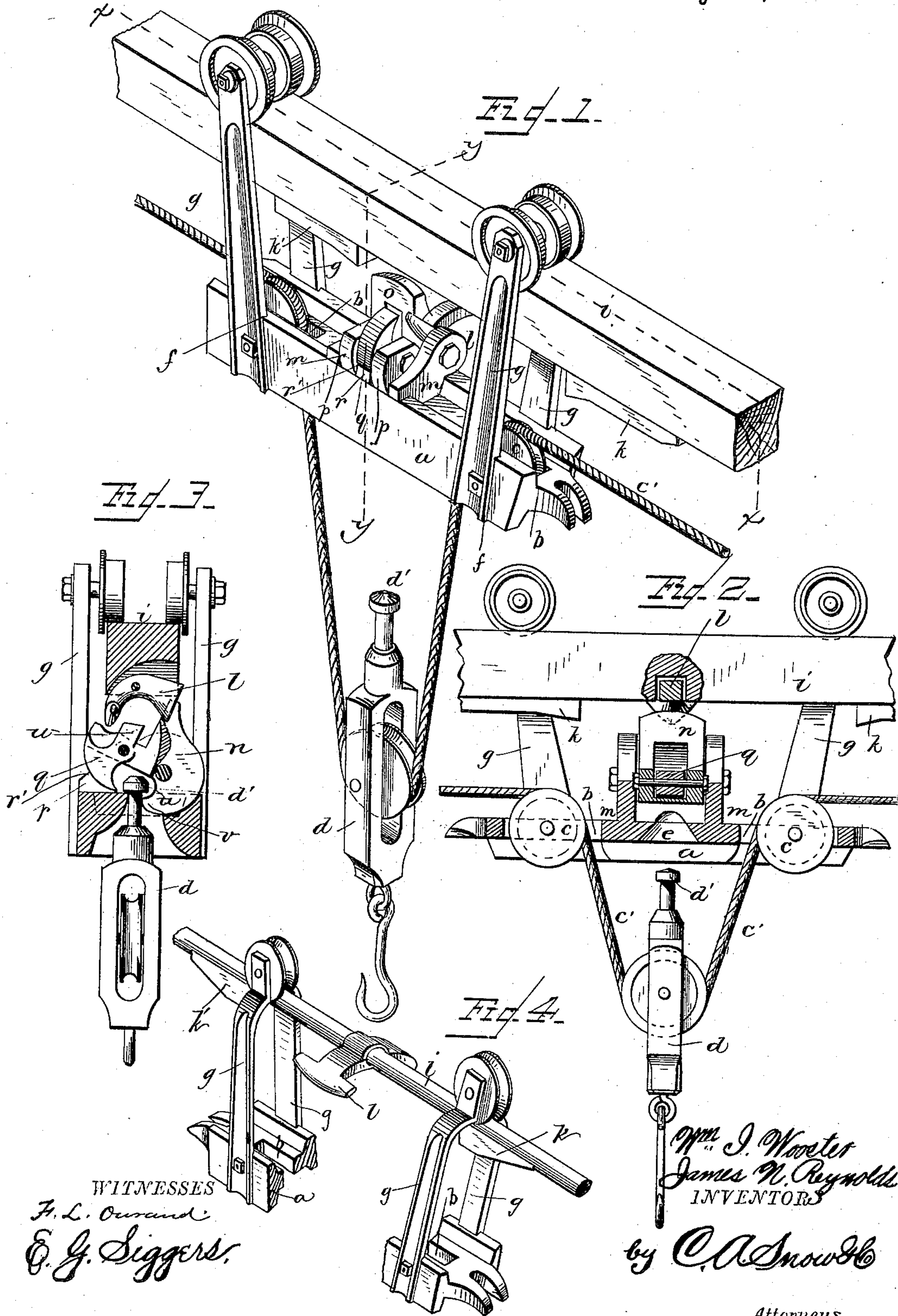
(No Model.)

2 Sheets—Sheet 1.

W. I. WOOSTER & J. N. REYNOLDS.
HAY CARRIER.

No. 298,809.

Patented May 20, 1884.



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E. J. Siggers.

Wm. I. Wooster
James N. Reynolds
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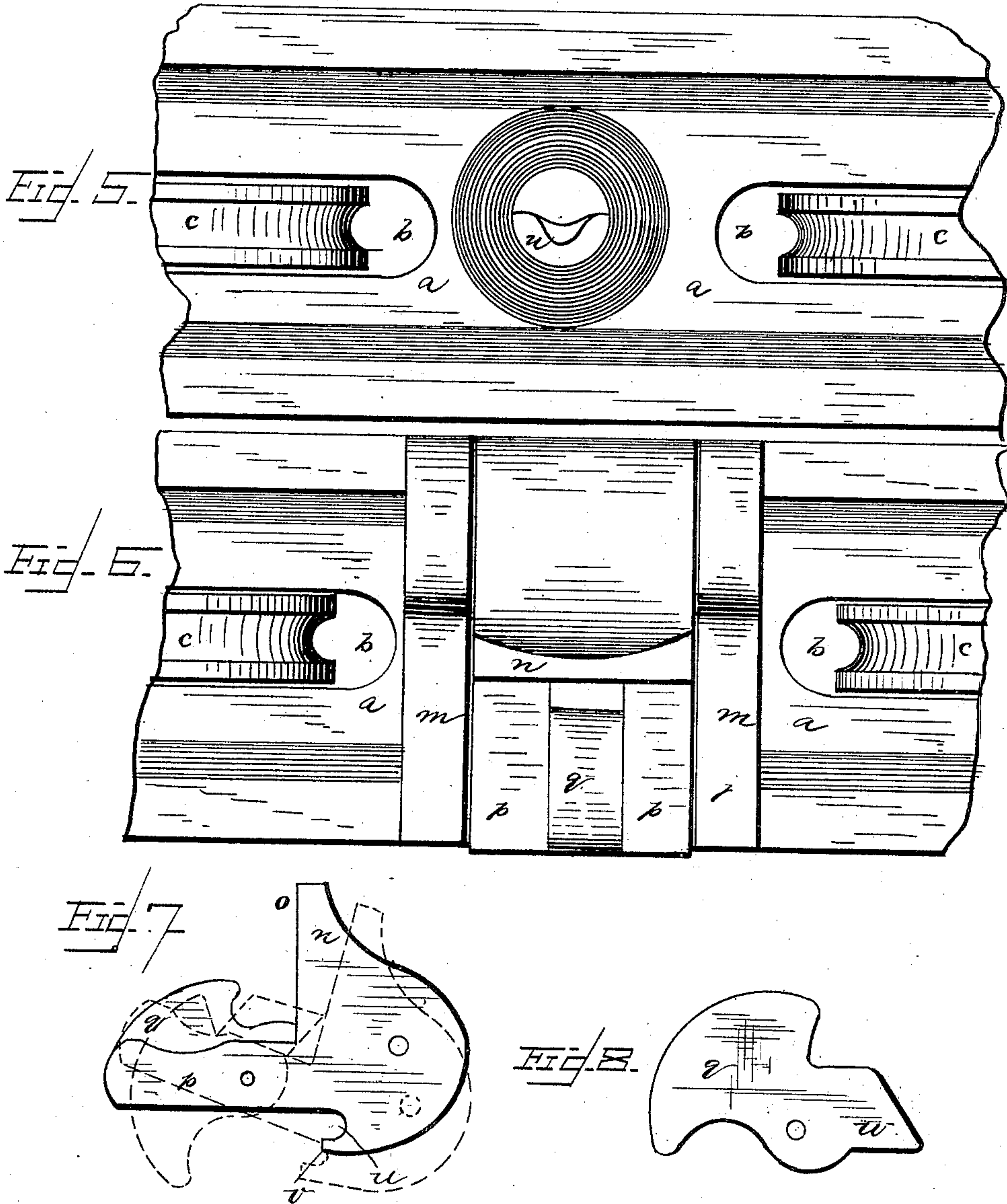
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UNITED STATES PATENT OFFICE.

WILLIAM I. WOOSTER AND JAMES NATHANIEL REYNOLDS, OF HARVARD,
ILLINOIS.

HAY-CARRIER.

SPECIFICATION forming part of Letters Patent No. 298,809, dated May 20, 1884.

Application filed March 6, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM I. WOOSTER and JAMES N. REYNOLDS, citizens of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented a new and useful Hay-Carrier, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to hay-carriers; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Figure 1 is a view in perspective of a hay-carrier embodying the improvements of our invention. Fig. 2 is a vertical longitudinal sectional view on the line *x x*, Fig. 1. Fig. 3 is a cross-sectional view on the line *y y*, Fig. 1. Fig. 4 is a perspective view of a modification of the hay-carrier. Fig. 5 is a detail view of the hinged block and dog set to hold the stem of the pulley-block. Fig. 6 is a detail view showing these parts tripped. Fig. 7 is a detail view of the drop-block *n* and the dog *q*. Fig. 8 is a detail view of the dog *q*, and Fig. 9 is a sectional detail view of the modified trip.

Referring by letter to the accompanying drawings, *a* designates the main casting or base, which is provided near each end on its middleline with longitudinal slots *b b*, in which the pulleys *c c* revolve. Over these pulleys passes the rope *c'*, which operates the block *d*. Between these slots *b b* is a hole, *e*, which is countersunk around its lower end to guide the headed stem of the pulley-block *d* to its seat when the load of hay is to be suspended and carried to place in the barn. The ends of the bottom of the casting *a* are bifurcated, as shown, and countersinks are made in their under faces, near their inner ends, for the knots on the rope *c'*, so that this rope may be shifted and the carrier run to either end of the barn—*i. e.*, both ways in the barn. The vertical sides of the casting are provided with inclined dove-tailed grooves *f f* in their outer faces near each end, for the reception of the lower ends of the hanger-arms *g*, (four in number,) each of which is provided with a flanged track-wheel, which travels on a rectangular track, *i*, provided with stops *k k'* and a trip, *l*; but four track-

wheels are unnecessary, as two may be used having grooved peripheries, and a round track consisting of a rod or cable, having the stops *k k'* and the trip *l*, as shown, without departing from the character of our invention. The straight hanger-arms and the curved hanger-arms cannot be both used at the same time, and the track must be changed to suit the differently-constructed track wheels. These tracks and hangers are, however, used interchangeably, as will readily be seen. The stop-blocks *k k'* are stationary, and are arranged on the under face of the track in either case. The pivoted trip *l* is weighted, so that it gravitates to its normal position, and is ready at all times to trip the dog, hereinafter described, as it reaches the trip. From the upper face of the casting *a*, between the hanger-arms, are two transverse lug-arms, *m m*, which form bearings for the hinged and shouldered drop-block *n o*, *n* being the hinged drop-block and *o* its shoulder, which engages the stops *k* and *k'* at the proper time, as hereinafter explained. This hinged drop-block *n* is provided in front of its shoulder *o* with arms *p p*, between which is pivoted a hooked shouldered dog, *q*.

Midway between the smaller ends of the lug-arms *m m* is provided, on the upper face of the casting *a*, a short rib, *r*, having a point, *r'*, on its upper face, formed by curving its face downwardly on both sides of the point *r'*, so that the hook-point of the pivoted dog *q* may rest on the curve outside of the point *r'* when the dog is unset or in its normal position, and the outer curve of the point of the dog *q* may rest on the curve on the inner side of the point *r'* when the dog is set up. The dog *q* is automatically set up by drawing the head of the stem *d* up through the countersunk hole *e*. The under face of the drop-block *n* is provided near its pivotal line with a nearly oval-shaped recess, *u*, the rear and deeper portion of which extends back of the forwardly-curved hook-points *v*, so that the head *d'* of the stem of the pulley-block that supports the hay-fork may engage hook-points *v* on their inner edges, and its remaining portion the upper face of the casting around the hole *e*. When the carrier is moved up to the trip *l*, the curved upper end of the shoulder *o* will strike

the weighted end of the trip *l* and raise it, thereby causing its other end to be pressed down against the shoulder *w* of the dog *g*, to raise the dog from its seat inside of the point *r'*, which will release the head *d'* of the stem *d*, and the pulley-block will drop by gravity to permit the fork to be loaded. While the loaded fork is being raised to engage the carrier and set the dog to hold the head *d'* in its seat, the shoulder *o* of the drop-block *n* engages either one or the other of the stop-blocks *k* or *k'*, accordingly as the draft is at one end or the other of the carrier. When the dog has been set, the carrier may be drawn along the track away from the trip without interfering with the stop-block; but when the dog has been tripped the shoulder *o* will engage the stop and prevent further movement of the carriage until the dog has been again set. The curved hangers and the two grooved wheels are used only in connection with the rod or cable track. In all other respects the parts are the same.

The device is cheap, simple, and efficient for the purposes for which it is intended, may be used either way—that is, to unload from the wagon to either end of the barn—is easily operated, and is not liable to get out of order at any time. The hanger-arms are secured to the casting in the dovetails by the same bolts that form the shafts for the pulleys in the casting.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a hay-carrier, the combination, with the main casting, of the lug-arms and the hinged drop-block provided with the vertical shoulder, and the arms, in which is arranged the pivoted curved and shouldered dog, adapted to be operated by a pivoted weighted trip in the under face of the track, substantially as specified.

2. In a hay-carrier, the combination, with the base-casting suspended from the track by hangers having flanged track-wheels, of the drop-block and pivoted shouldered, curved

dog arranged transversely of the casting over a countersunk hole, and a trip-lever operated by a shoulder on the drop-block, substantially as specified.

3. In a hay-carrier, the combination, with the casting provided with the countersunk middle hole and pulleys at its sides, and provided with the hinged drop-block having the vertical shoulder, and the pivoted curved, hooked, and shouldered dog, of the track provided with the rigid stop-blocks on its under face, and the pivoted weighted trip between them, substantially as specified.

4. In a hay-carrier, the combination, with the casting having dovetail grooves in its vertical faces, of the hanger-arms secured within said dovetail grooves by the bolts that form the axes for the pulleys in the casting, substantially as specified.

5. In a hay-carrier, the combination, with the main casting having dovetail grooves in its vertical faces, of the detachable hanger-arms, whereby the carrier may be changed from a four-wheel track to a rod or cable track, substantially as specified.

6. In a hay-carrier, the combination, with the main casting having the under countersunk middle hole and the pulleys near each end, of the cross lug-arms and the intermediate point-rest for the pivoted dog, of the drop-block having the nearly oval-shaped recess in its under face between and back of the hook-arms, the vertical shoulder at its rear, the pivoted curved and shouldered dog between the forward portion of the arms, the pulley-block having the headed stem, and the stop-blocks and pivoted trip on the under face of the carrier-track, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

WILLIAM I. WOOSTER.

JAMES NATHANIEL REYNOLDS.

Witnesses:

G. BRAINARD,

E. RECTOR.