I. S. KRICK.

HAY-ELEVATORS AND CONVEYERS.

No. 195,615. Patented Sept. 25, 1877.

Fig. 1.

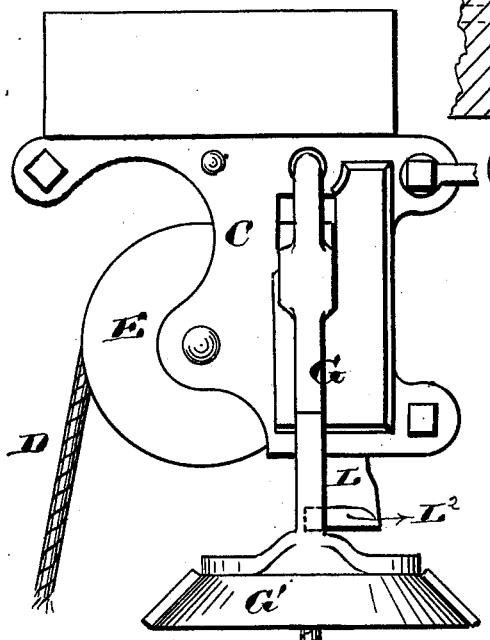

Fig. 2.

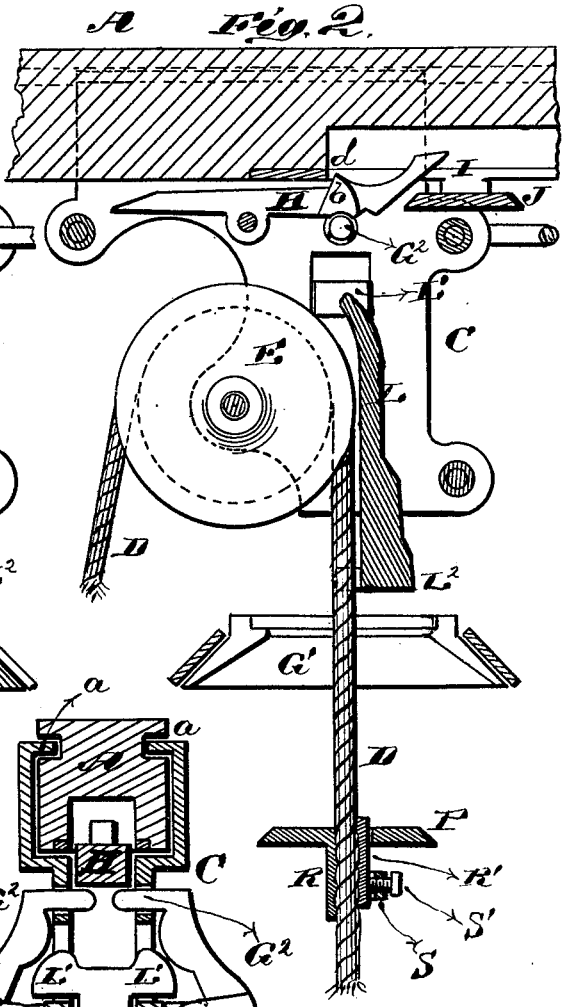

Fig. 4.

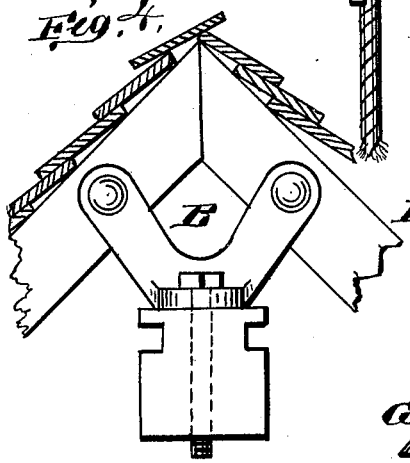

Fig. 3.

WITNESSES

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IRWIN S. KRICK, OF CONNEAUTVILLE, PENNSYLVANIA.

IMPROVEMENT IN HAY ELEVATORS AND CONVEYERS.

Specification forming part of Letters Patent No. **195,615**, dated September 25, 1877; application filed August 18, 1877.

To all whom it may concern:

Be it known that I, IRWIN S. KRICK, of Conneautville, in the county of Crawford and State of Pennsylvania, have invented a new and valuable Improvement in Hay-Carriers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my hay-carrier; Fig. 2, a longitudinal vertical sectional view; Fig. 3, a vertical sectional view, and Fig. 4 a sectional detail thereof.

The nature of my invention consists in the construction and arrangement of a carriage for hay-elevators, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the beam or track for the carriage, secured under the peak of the roof of the barn to the rafters by means of brackets B. Each of these brackets is formed with three arms, as shown, one arm being fastened to the top of the beam A, and the other two arms to the two rafters a suitable distance from their junction, so that these brackets not only support the beam A, but also form a brace to the rafters for strengthening the same and keeping them in place.

C represents the carriage, supported on the beam by means of flanges *a a* entering longitudinal grooves in the sides of the beam, or by means of wheels or rollers mounted in the carriage, and running on top of the beam, or on ways formed on or attached to the sides thereof. In the carriage C is mounted a wheel, E, over which the hoisting-rope D passes. To ears on each side of the carriage is pivoted a lever, G, having at its lower end a semicircular rim, G^1, formed on or attached to it. At the upper end of each lever G is formed a lug or arm, G^2, which enters into the interior of the carriage through a slot in the side thereof. These two arms or lugs support a latch, H, pivoted in the upper part of the carriage. This latch has a shoulder at *b*, which catches in and against a casting, I, secured in the under side of the beam A. This casting is constructed with a longitudinal slot forming a shoulder, *d*, near each end, and in the center is a cross-bar with a bar, J, running longitudinally with the beam, and having its ends beveled, as shown. Within the carriage C is a vertically-sliding plunger, L, provided at its upper end with cams L^1 L^1, projecting through slots in the sides of the carriage, and at the lower end it has a head, L^2, as shown. Each lever G is operated upon by a spring, K, to throw the arm or lug G^2 inward into the carriage under the latch H.

On the hoisting-rope D, a suitable distance above the hay-fork, is secured a circular plate or disk, P, which is formed with a semi-tubular arm, R, to encircle one-half of the rope. This arm is formed with a clip, S, which surrounds another semi-tubular arm, R′, driven down through the eye in the disk P, and then clamped by means of a set-screw, S′. The inner or concave surfaces of the tubular arms R R′ are made toothed or corrugated to bind firmly on the cord.

When the carriage moves on the beam A, and as it approaches the stopping-point, the front curved end of the latch H strikes the beveled end of the bar J, whereby the latch is raised from between the arms G^2, and the spring K, acting upon the levers G, throws said arms inward, preventing the latch from dropping down again, and the shoulder *b* of the latch is caught against the shoulder *d* of the casting I, so that the carriage is thereby locked in position.

It will be noticed that when in this position the flaring rims G^1 at the lower ends of the levers are spread apart or separated. Now, as the load is raised, the disk P passes upward between the rims G^1, and as it strikes the head L^2 it raises the plunger L, which, by means of the cams L^1, throws outward the upper ends of the levers G, causing the arms G^2 to be withdrawn from under the latch H, allowing the same to drop down, thereby releasing the carriage and allowing it to move along on the beam A. This movement of the levers G, caused by the cams L^1, as described, throws the rims G^1 inward under the plate or disk P, so as to prevent its downward movement, and thus support the load while it is

being conveyed to the designated spot, where the fork is unloaded. The carriage is then returned, and, as the latch is raised again, the plate P is released and descends with the fork.

The carriage may be made to work from either end, the casting I being for that purpose made exactly alike on both sides of its center.

This hay-elevator carriage is simple in construction, easily operated, and not liable to get out of order.

The disk P may be adjusted at any point desired on the rope, and can be easily changed to suit circumstances.

What I claim as new, and desire to secure by Letters Patent, is—

1. The casting I, formed with the shoulders *d d*, and provided with the pendent bar J, having beveled ends, substantially as and for the purposes set forth.

2. The gravitating latch H, formed with the shoulders *b*, in combination with the supporting-arms G^2 and casting I J, substantially as and for the purpose set forth.

3. The pivoted levers G G, formed with the rims G^1 G^1 and arms G^2 G^2, in combination with the cams L^1 L^1 and springs K K, substantially as and for the purposes set forth.

4. The plunger L, formed with the cams L^1 and head L^2, in combination with the levers G, as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

IRWIN S. KRICK.

Witnesses:
CHARLES TRUESDALE,
NEWTON TRUESDALE.