

E. L. CHURCH.
HAY-ELEVATOR.

No. 178,734.

Patented June 13, 1876.

Fig: 1.

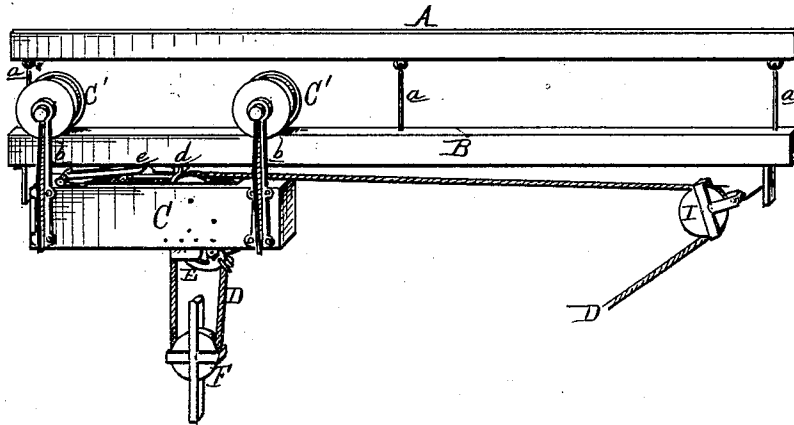


Fig: 2.

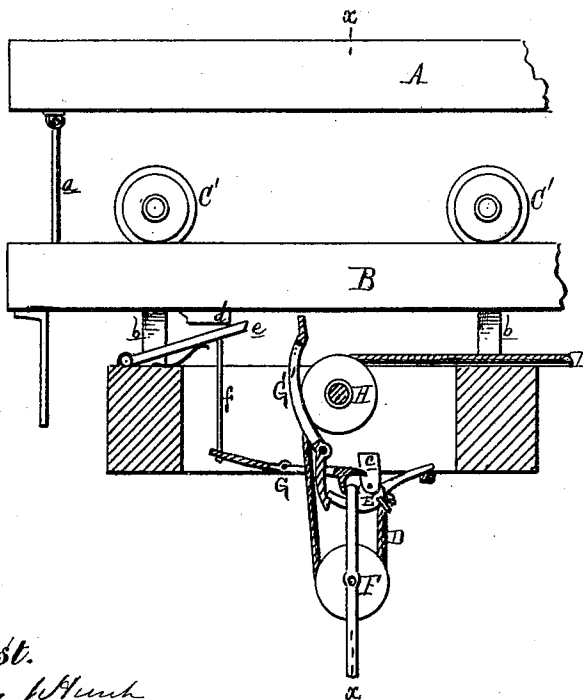
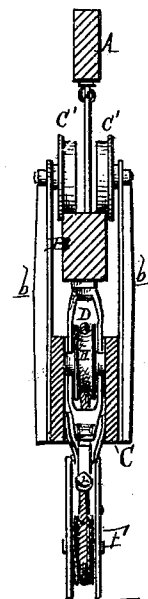


Fig: 3.



Attest.
Charles J. Hunt
Edward Barthel

Inventor.
E. L. Church
By Atty.
Wm. J. Sprague

UNITED STATES PATENT OFFICE.

EUGENE L. CHURCH, OF WALWORTH, WISCONSIN.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **178,734**, dated June 13, 1876; application filed September 29, 1875.

To all whom it may concern:

Be it known that I, EUGENE L. CHURCH, of Walworth, in the county of Walworth and State of Wisconsin, have invented an Improved Hay Elevator and Conveyer, of which the following is a specification:

The nature of my invention relates to an improvement in hay elevators and conveyers; and consists in the combination and arrangement of the operative parts, all as more fully hereinafter explained.

Figure 1 is a perspective view. Fig. 2 is a sectional elevation of the carriage and a part of the track-beam. Fig. 3 is a cross-section at *x x*.

In the drawing, A represents a beam, ridge-pole, or rafter, that is permanently secured in the upper part of the barn over the floor and mow. B is a track-beam suspended from the beam A by eyebolts *a* passing through the center of the latter, so that it may swing out of a position directly under the former. C is the carriage-frame, suspended by two hangers, *b b*, on each side from the axis of two flanged wheels, C' C', running on each side of the track-beam above. The space between each wheel and its mate is sufficient to clear the eyebolts as they pass the latter. D is the hoist-rope, one end of which is eccentrically secured to a lever-hook, E, hung between two plates, *e*, between the sides of the carriage-frame at the bottom thereof. The rope passes through the frame-sheave F, from which the hay-fork is suspended, passing thence up through the fork of a trip-lever, G, horizontally pivoted in the frame, and also through an eye in a locking-lever, G', vertically hung in said frame; thence over a sheave, H, journaled in the upper part of said frame; thence through a tail-block, I, over the bay and down to the ground, where a horse is hitched to its free end. *d* is a block under the outer end of

the track-beam, behind which a spring-stop, *e*, engages whenever the carriage slides forward over the loading-floor. The stop *e* is connected by a rod, *f*, with the outer end of the lever G, and whenever the free end of the latter is struck by the ascending top end of the frame of the sheave F the stop *e* will be drawn down below the plane of the stop *d*, and the carriage will move along to the bay.

Before freeing the carriage from the stop the frame of the sheave F strikes the inner end of the hook E and pushes it up until tangent to its end, when the lower end of the lever G' will hook under the end of the said hook E and lock. After striking the tripping-lever the sheave-frame drops onto the hook E and is supported by it until the carriage is run back from the bay, when the upper end of the lever G' strikes the stop-block *d*, which releases the hook E, when the sheave-frame will be lowered to the loaded wagon. A guide-rope or trip-rope may be attached to the sheave-frame to draw it back, or the track may be hung on an incline to run the carriage back by gravity. It frequently occurs that the loaded wagon does not stand directly under the track, which, if rigidly suspended from the roof, will cause the wheels of the carriage to run off. By making the track-beam adjust itself to the angle of the loaded wagon, in suspending it as I do, all trouble from this cause is avoided.

What I claim as my invention is—

The hook E, levers G G', spring-stop *e*, and link *f*, in combination with the carriage C, sheave-frame F, the stop-block *d* under the track-frame, and the suspended track-beam, substantially as described.

EUGENE L. CHURCH.

Witnesses:

C. CHURCH,
Z. M. HERITAGE.