

(No Model.)

J. HOLMAN.
HAY STACKER.

No. 455,252.

Patented June 30, 1891.

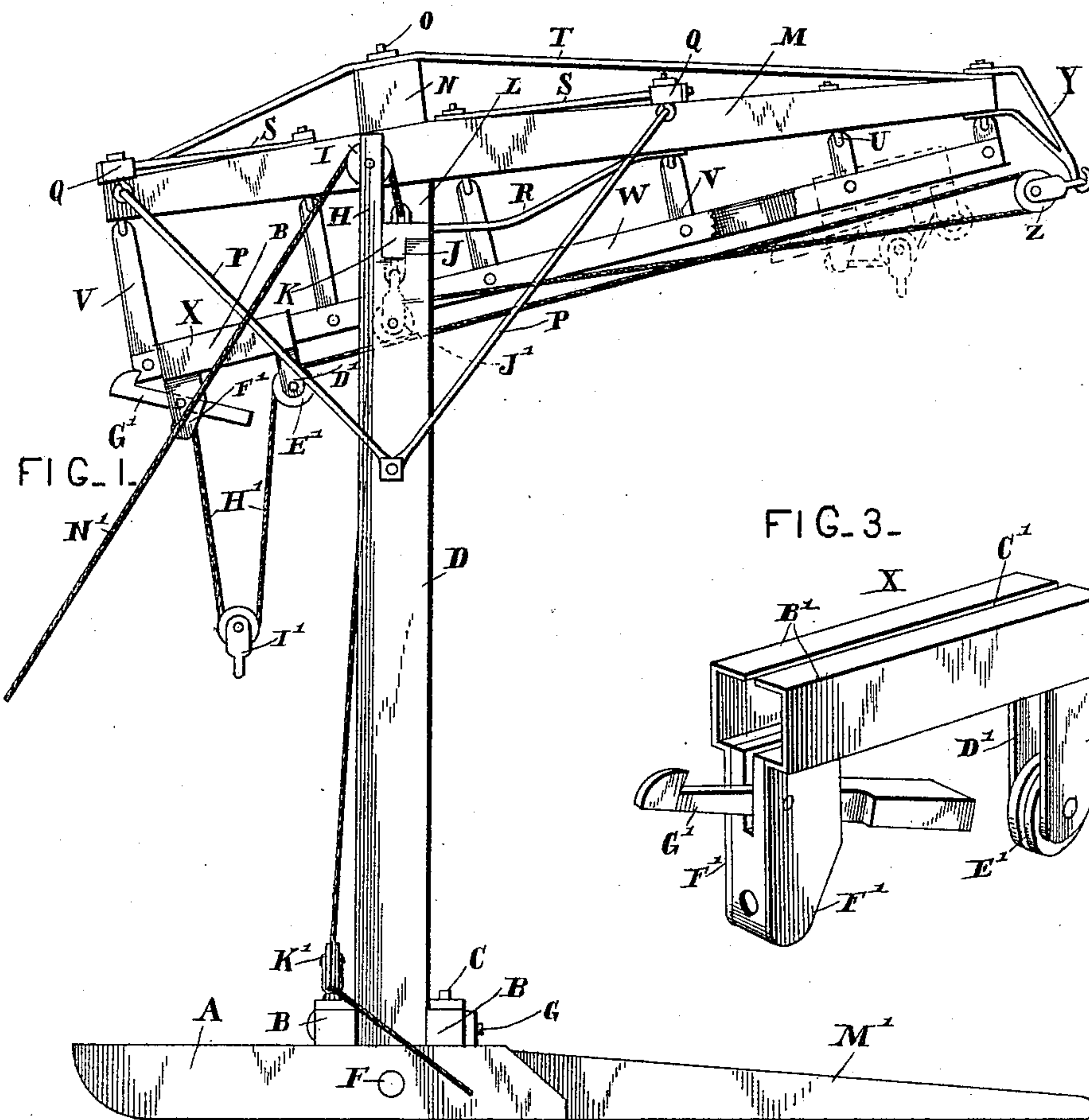


FIG. 3.

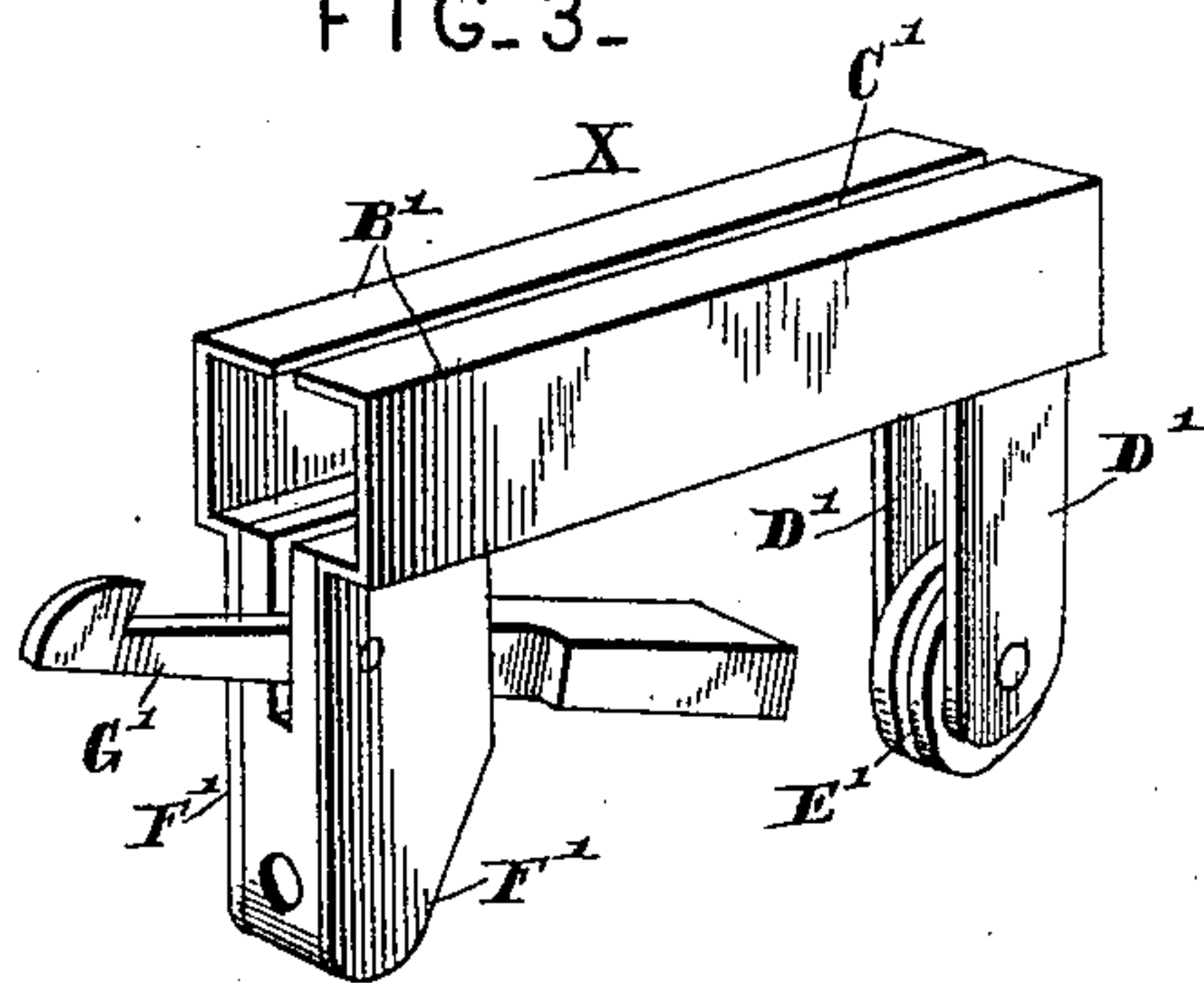
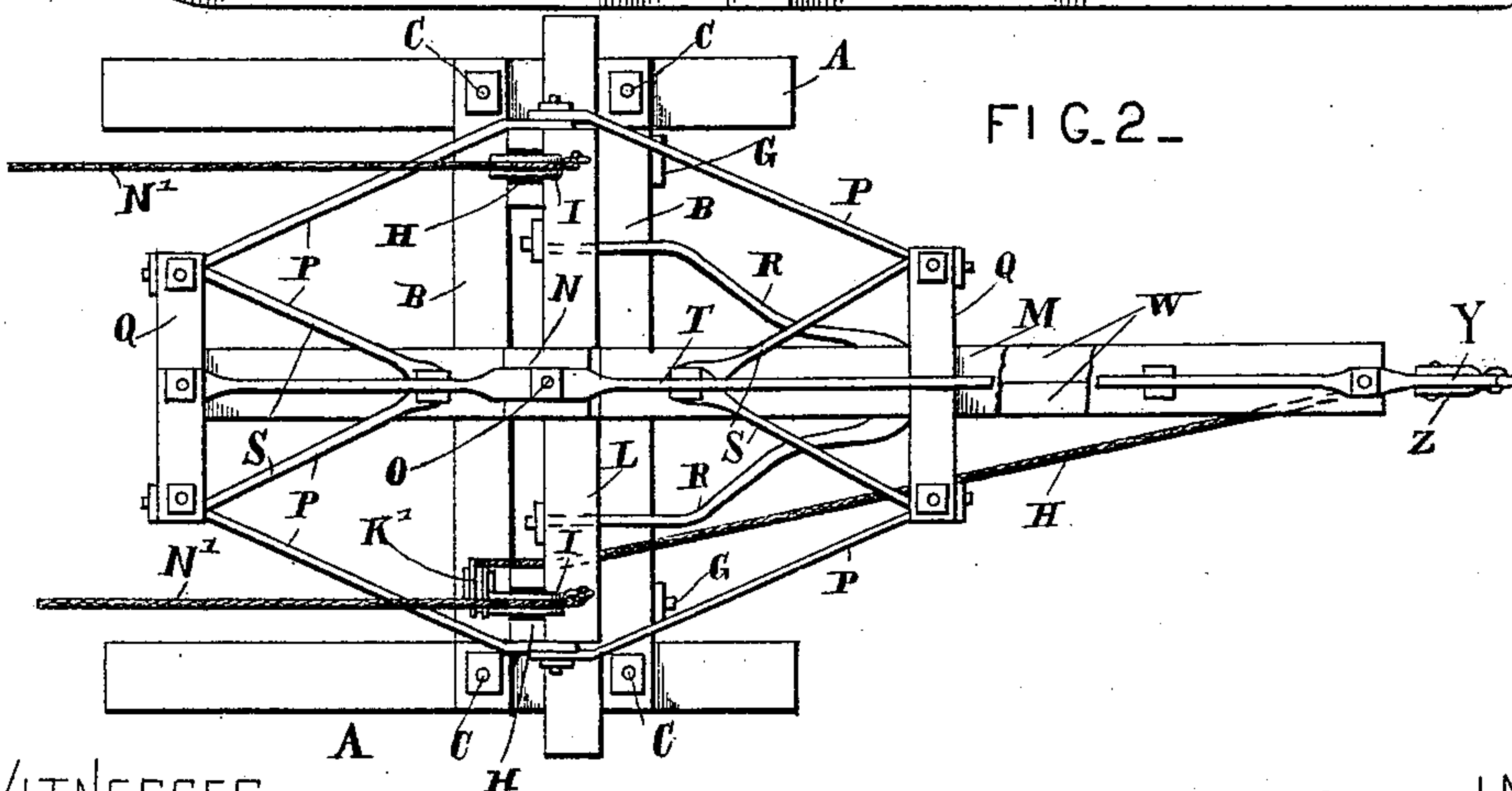


FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JACOB HOLMAN, OF RICHFIELD, ILLINOIS.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 455,252, dated June 30, 1891.

Application filed April 4, 1891. Serial No. 387,616. (No model.)

To all whom it may concern:

Be it known that I, JACOB HOLMAN, of Richfield, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Hay-Stackers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in hay-stackers; and it consists in the construction and arrangement of parts, which will be fully described hereinafter, and particularly referred to in the claims.

The object of my invention is to construct a hay-stacker of the construction hereinafter shown and described, whereby it can be drawn from place to place and the hay elevated by means of a traveling carriage which slides upon an inclined track, the arrangement being cheap, simple, light, and effective.

In the drawings, Figure 1 is a side elevation of a hay-stacker which embodies my invention complete, the detaching-catch being shown in one position in solid lines and in its other position in dotted lines. Fig. 2 is a plan view of the same. Fig. 3 is a detached view of the traveling carriage.

A indicates two parallel runners, which are connected by means of the two transverse parallel beams B, which are bolted to the upper surface thereof a slight distance apart by means of the vertical bolts C. Extending upward between these two transverse beams and having their lower ends secured to the inner face of the runners are the vertical supports D. These supports D are secured to the said runners by means of horizontal bolts F and to the said transverse beams by means of the horizontal bolts G, which together hold the supports firmly in a vertical position. The upper ends of these supports are cut away upon one side, as shown, so as to form the extensions H, which have their upper ends bifurcated and the sheaves or guiding-wheels I journaled between them. The shoulders formed by these cut-away portions are provided with grooves J, in which a projection of rib K upon the transverse beam L, which

rests upon these shoulders and connects the upper ends of the vertical supports, is placed. Placed upon the center of the upper face of this transverse beam L is a track-supporting beam M, which extends upon both sides of the beam L any desired distance, one end preferably extending a considerable distance, as shown, to reach over the stack which is being formed, while the other end does not extend so far. This beam M has placed upon its upper face, directly over the beam L, a block N, and extending through this block and the two beams is a securing-bolt O, which secures them all together. The beam M is further braced against lateral movement by means of the rods P, which have their upper ends secured to two transverse rods or bars Q, which are fastened to the beam M upon opposite sides of the beam L, and their lower ends to the supports, as shown; also, secured to the under side of the beam M are the bracing-rods R, which have their opposite ends passed through the beam L and secured by means of a nut. The transverse bars Q are braced by means of the rods S. Extending longitudinally the beam M, upon its upper side, is a truss-rod T, which has its ends secured to the ends of the said beam, and which passes over the block N, and is held by means of the bolt O.

Suspended from eyebolts U under the track-supporting beam M are the flat bars or plates V, which are provided at their upper ends with perforations through which the eyes or hooks of the said bolts pass, and the lower ends of these plates are rigidly secured between two bars W, which form a track for the traveling carriage X. Projecting outward from the long end of the beam M is a downwardly-inclined rod Y, which has its inner end bifurcated to straddle over the end of the said beam, and is secured thereto by means of the same bolt which secures the outer or adjacent end of the truss-rod. The outer end of this rod Y is formed into a hook, from which is suspended in any suitable manner a pulley Z.

Placed upon the track is a carriage X, just mentioned, and this carriage consists of a frame which is rectangular in cross-section and has the inwardly-extending flanges B',

which do not meet, so as to form a slot C', in which the plates upon which the track is suspended pass as the carriage moves back and forth upon the track. Extending from the forward end of this carriage are the two depending ears D', between which a wheel E' is journaled; also, depending from the rear and opposite end of this carriage are the two ears F', between which a block is secured. Pivoted in this block between its ends is a catch G', which is normally held in the position shown in solid lines in Fig. 1 by gravity, its rear or outer end engaging the inner end of the track. Secured in this block below the catch is a rope H', upon which is suspended a pulley I', and this rope then passes over the pulley at the opposite end of the carriage, forward to and around the pulley at the end of the beam M, then backward over a pulley J', suspended from the beam L, and then downward through a pulley K', and to this rope a horse is attached for elevating and carrying the hay.

In operation the hay is attached to the pulley I' in any suitable manner, (the carriage being held to the short end of the beam M by means of the catch,) the horse started, and the hay is elevated until the pulley I' strikes the inner end of the catch, which detaches it from the track, and the continued pulling of the horse carries the carriage and the hay outward upon the track to the desired point, when the hay is dumped by any desired means.

Secured to the underside of the beams which connect the runners is an extending arm M', which is sharpened and extends under the stack which is being formed. When a stack is formed and it is desired to form another, the team is attached to the base of the stacker, and it can then be drawn to the desired place for forming another stack upon the runners.

Connected to the ends of the beam L are the guy-ropes M', which pass over the pulleys in the extending ends of the supports and have their opposite ends secured to any desired object or stake which is driven in the ground.

The beams L M can be raised off of the supports and lowered whenever desired by detaching the lower ends of the brace-rods P from the supports and pulling downward upon the guy-ropes until the beam L is raised off of the shoulders of the upper ends of the supports, and then the two beams let down. So, also, these beams can be raised to position in the same manner. In this manner the stacker is readily taken apart for storing away, as all of the parts are secured together by means of bolts, as heretofore mentioned, which will be found very convenient.

Having thus described my invention, I claim—

1. In a hay-stacker, the runners, the horizontal beams which connect them, the extending arm secured to the beams between their ends, the vertical supports secured to the runners between the said beams, the beam connecting the upper ends of the supports, the track-supporting beam placed upon the last said beam, a track, suspending bars loosely connecting the track to the said beam, a carriage upon the track, and the operating ropes and pulleys, the parts combined substantially in the manner shown and described.

2. In a hay-stacker, the supporting-frame having vertical supports which have shoulders, a transverse beam placed thereon, extensions rising from the said supports above the said beam, the track-supporting beam, a track, a carriage, an operating-rope, and ropes which pass over the said extensions and have their upper ends secured to the said transverse beam, the parts combined as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB HOLMAN.

Witnesses:

JOHN WINGET,
JOHN BOYER.