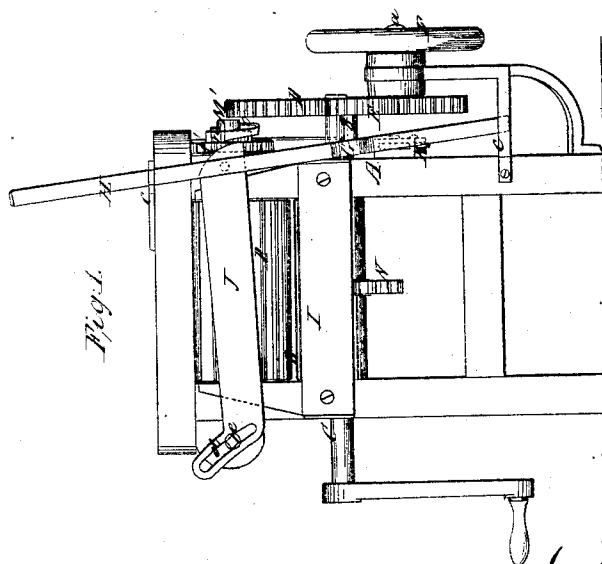
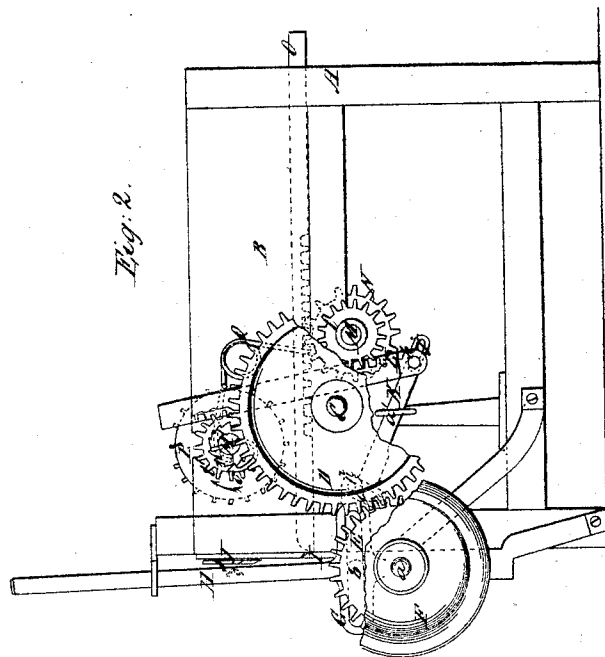


J. SCHIEFFELIN, Jr.
FEED CUTTING MACHINE.

No. 30,695.

Patented Nov. 20, 1860.



Witnesses
J. W. Coombs
R. S. Spencer

Inventor.
Jacob Schieffelin Jr.
per Munn & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JACOB SCHIEFFELIN, JR., OF TIOGA, PENNSYLVANIA.

STRAW-CUTTER.

Specification of Letters Patent No. 30,695, dated November 20, 1860.

To all whom it may concern:

Be it known that I, JACOB SCHIEFFELIN, Jr., of Tioga, in the county of Tioga and State of Pennsylvania, have invented a new and Improved Machine for Cutting Straw, Hay, Stalks, and other Substances for Fodder; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front view of my invention. Fig. 2, a side view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has for its object the feeding of the substance to be cut with a positive movement; or with such a device as will insure its proper movement toward the knife at each vibration of the same.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a rectangular framing on which a feed box B, is placed, and C, is a driving shaft which is placed transversely in the framing A, just underneath the feed box B. On one end of this shaft C, there is placed a toothed wheel D, which gears into a wheel E, on a shaft *a*, said shaft having a fly wheel F, at its outer end. The inner side of the wheel E, has a pin *b*, projecting from it near its periphery and this pin fits within an oblong horizontal yoke G, which is formed on a shaft H. The shaft H, is fitted within guides *c, c*, attached to the framing A, and said shaft has an oblique position relatively with the framing A, in two different planes which are at right angles to each other. One position of the shaft H, is shown in Fig. 1, in which it will be seen that the upper part of the shaft inclines toward the left hand. The other oblique position of the shaft H, is shown in Fig. 2, in which it will be seen that the upper part of the shaft inclines outward from the framing.

At the front part of the framing A, there is secured a leger blade or knife I, said blade or knife being at the lower part of the feed box.

J, is a knife which works over the blade or knife I, the former having at one end a curved slot *d*, in which a pin *e*, which projects from the framing is fitted and works. The opposite end of the knife J, is provided

with a conical pin or projection *f*, which fits in a recess *g*, in the shaft H, as shown clearly in Fig. 2.

To the inner or back end of the yoke G, there is connected a lever K, this connection is formed by a pin *h*, on the yoke fitting in a slotted cross arm *i*, on the lever, as shown by the dotted lines in Fig. 2. The outer end of lever K, has a longitudinal slot *j*, in it, and the lower end of a rack bar L, is attached to said lever by a bolt *k*, the slot *j*, admitting of the attachment of the rack bar at a greater or less distance from the end of lever K. The fulcrum of lever K, is shown at *a**, in Fig. 2.

The rack bar L, has a rack at each side or edge of it and these racks mesh into wheels *l, l'*, the wheel *l*, being on the end of a shaft M, which has a pinion N, on it said pinion gearing into a rack at the under side of a slide O, which forms the bottom of the feed box B. The wheel *l'*, is placed loosely on the shaft M', of a feed roller P, which is placed in the feed box B. The wheel *l'*, has a ratchet *n*, attached to its outer side and this ratchet engages with a pawl which causes the feed roller P, to rotate when the wheel *l'*, is turned in the direction indicated by the arrow. Q, is a spring which serves to retain the rack bar L, in proper position.

The operation is as follows: The substance to be cut is placed in the feed box B, and the shaft C, is rotated by any convenient power. The shaft H, has a reciprocating movement given it in consequence of the pin *b*, working in the yoke G, and each time the shaft H, descends the knife J, is brought down, over the leger blade I, with a drawing cut, such result being due to the oblique position of shaft H, as shown in Fig. 1, and the slot *d*, in which the pin *e*, fits. The knife also as it descends is pressed toward the leger blade I, in consequence of the oblique position of the shaft H, as shown in Fig. 2, the conical pin *f*, admitting of such a movement, and the knife is therefore rendered in a measure self-sharpening. After the shaft H, has reached a certain point in its ascending movement the lever K, is actuated, and the rack bar L, drawn down. During this movement of the rack bar both wheels *l, l'*, are turned and the feed roller P, is turned, in the direction indicated by the arrow, and the shaft M,

is consequently turned and also pinion N, the latter feeding the bottom O, of the feed box toward the knives J, I. The movement of the bottom O, is simultaneous with the
5 roller P, and the substance within the feed box will consequently be fed toward the knives J, I. As the rack bar L, rises, the movement of pinion N, is reversed and the bottom O, is moved back, but the feed roller
10 P, remains stationary in consequence of the pinion *l'*, being loose on the shaft M'. The roller P, when stationary prevents the substance being moved back with the bottom O. The feed movement may be regulated
15 so as to cut the substance into pieces of greater or less length by adjusting the rack

bar L, nearer to or farther from the end of lever K.

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

The arrangement of the rack bar L, with the pinions *l*, *l'*, the latter having ratchet *n*, attached into which pawl *o*, of shaft M', engages, feed roller P, reciprocating bottom O, and lever K, attached to yoke G, of shaft H, as and for the purpose set forth.

JACOB SCHIEFFELIN, JR.

Witnesses:

C. H. SEYMOUR,
LYMAN BEACH, JR.