

J. F. KELLER.
Straw-Cutters.

No. 135,816.

Patented Feb. 11, 1873.

Fig. 1.

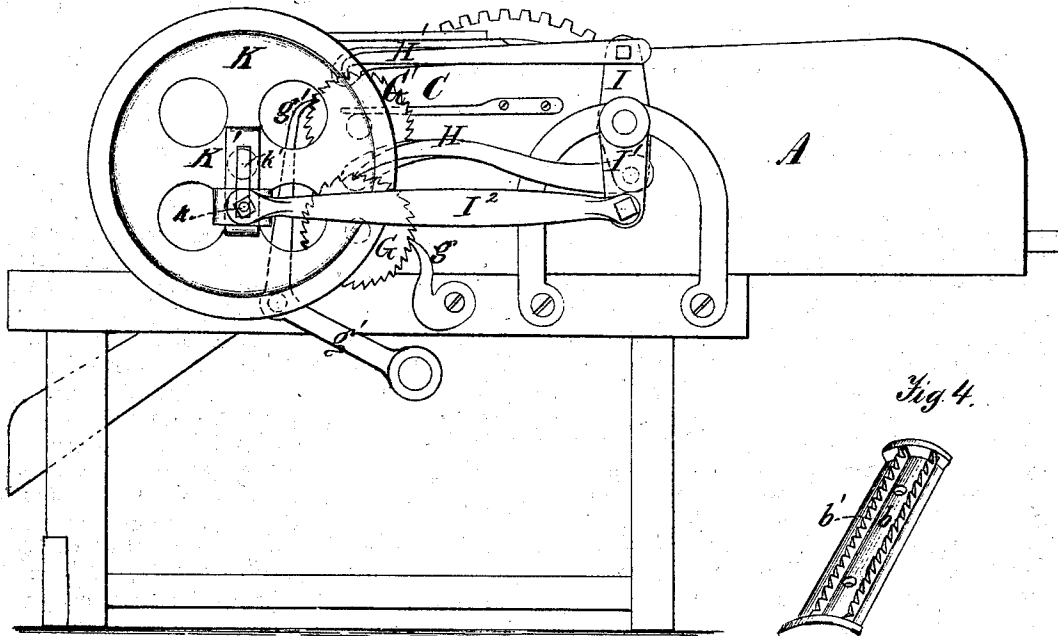


Fig. 4.

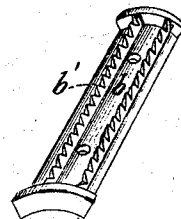
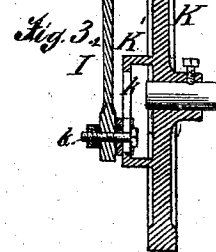
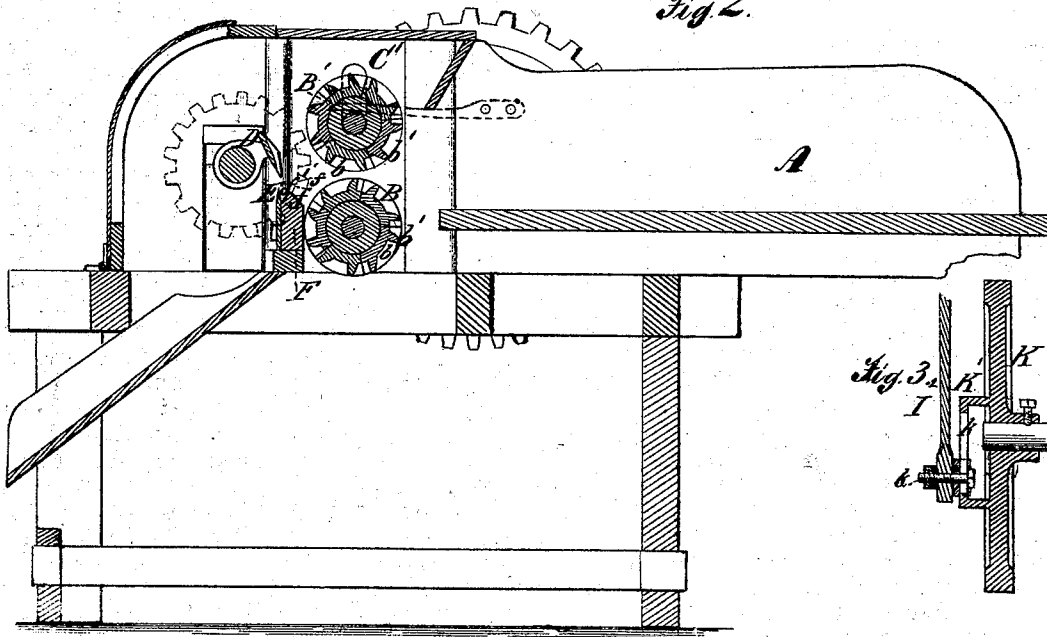


Fig. 2.



Witnesses.
A. Ruppert.
Wm. M. Lynch

Inventor.
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UNITED STATES PATENT OFFICE.

JOHN F. KELLER, OF HAGERSTOWN, MARYLAND.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. 135,816, dated February 11, 1873.

To all whom it may concern:

Be it known that I, JOHN F. KELLER, residing at Hagerstown, in the county of Washington and State of Maryland, have invented certain Improvements in Fodder-Cutters, of which the following is a specification:

This invention relates to straw-cutters; and consists in the combination, with the feed-rollers and knife of a fodder-cutter, of an intervening transverse bar having upon its upper edge inclined surfaces, substantially as hereinafter more fully described and claimed.

Figure 1 represents a side elevation of my improved fodder-cutter. Fig. 2 is a longitudinal sectional elevation. Fig. 4 is a view of one of the feed-rollers. Fig. 3 is a sectional view, showing the means for adjusting the throw of the pitman actuating the feed mechanism.

The same letters of reference are used in all the figures in the designation of identical parts.

The fodder is passed through the ordinary box A to the feed-rollers B and B', the latter of which, being the upper one, is journaled in vertically-elongated slots in the housings C and C', and bears against suitable springs, pressing it toward the lower roller. The rollers shown consist of a wooden core covered with metallic sections; they may, however, be made entirely of metal and all in one piece, if preferred. The surface of each roller is formed with comparatively wide and deep longitudinal or parallel grooves *b* and intervening ridges of teeth *b'*, which enables them to get a firm bite upon the fodder, and also to crush the same so as to reduce it to the best condition for food for animals. The teeth are of pyramidal form, and those of one row stand opposite to the spaces between those of the adjacent rows, so that they must necessarily act upon all portions of the stalks passing between the rollers. The rotary cutter D acts in connection with the stationary knife E, which is secured in suitable manner to the housings. Between the feed-rollers and this fixed knife is located a bar, F, which is beveled upon the side next to the feed-rollers in such a manner that the advancing stalks of

fodder coming in contact with such beveled surface *f* shall be guided over the edge of the fixed knife. Without such device the stalks might strike square against the knife and soon cause the choking of the machine. This bar, being secured to the knife, is also beveled at *f'*, so that the knife may be ground without removing it. The corresponding journals of the feed-rollers project through their bearings, and each carries a ratchet-wheel, the one on the lower roller being marked G and the other G'. The ratchet-wheels, and consequently the feed-rollers also, receive an intermittent rotary motion in opposite directions by means of the reciprocating pawls H and H', which are pivoted to the opposite ends of oscillating lever I, the fulcrum-pin of which carries on its overhung outer end a crank, I', connected by pitman I² to a crank on the fly-wheel K. Gravitating retaining-pawls *g* and *g'* are used to hold the ratchet-wheels stationary while the reciprocating pawls slide over them on their return strokes. The fly-wheel K has a bridge, K', formed upon it, to which the wrist-pin *k* is secured, the bridge being provided with an elongated slot, *k'*, to permit of the radial adjustment of the wrist-pin, by means of which the throw of the pitman is regulated so that the amount of movement of the feed-rollers at each impulse may be regulated at pleasure.

The machine may be driven by any preferred or convenient gearing. Its revolving cutter and feed-rollers are covered by suitable caps, and the cut fodder is delivered from it through a chute in the ordinary manner.

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

The combination, with the feed-rollers of a fodder-cutter and fixed knife, E, of the intervening inclined surfaces *f f'*, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name this 28th day of May, A. D. 1872, in presence of two subscribing witnesses.

JOHN F. KELLER.

Witnesses:

J. W. MISTER,
WM. M. LYNCH.