C. R. HEWETT.

Straw Cutter.

No. 45,997. Patented Jan. 24, 1865.

Fig.

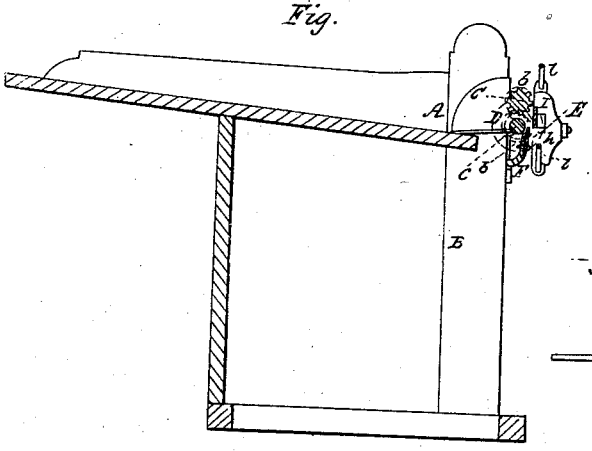


Fig. 3.

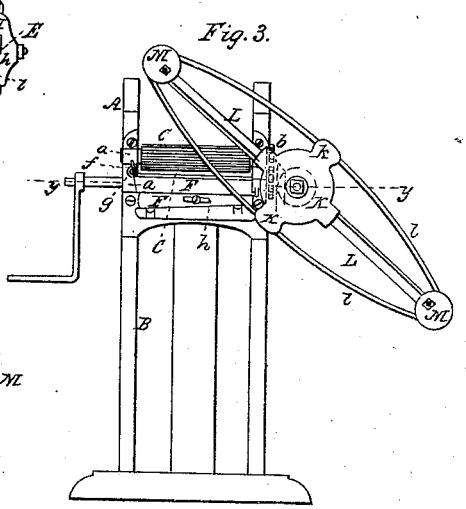


Fig. 2.

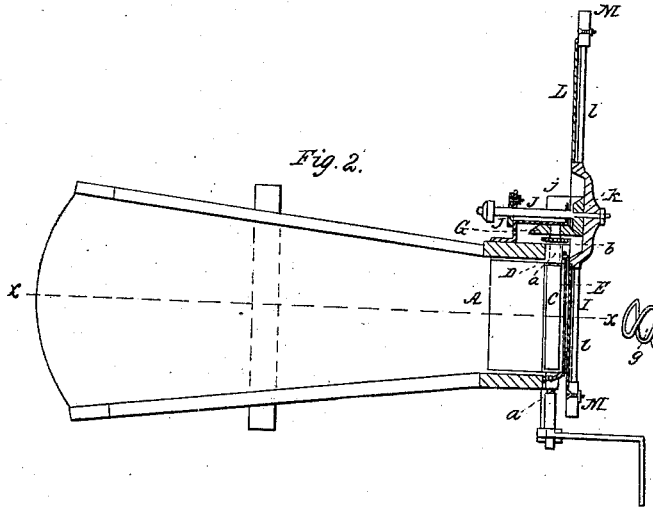
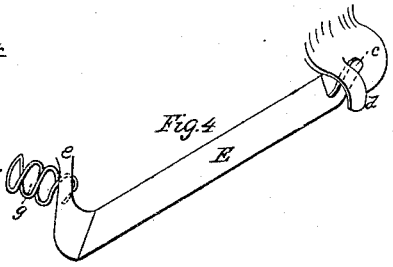


Fig. 4



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UNITED STATES PATENT OFFICE.

CLARK R. HEWETT, OF WAUPUN, WISCONSIN.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. **45,997**, dated January 24, 1865.

To all whom it may concern:

Be it known that I, CLARK R. HEWETT, of Waupun, in the county of Dodge and State of Wisconsin, have invented a new and Improved Straw-Cutter; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 3; Fig. 3, a front view of the same; Fig. 4, a detached perspective view of a stationary cutter pertaining to the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for cutting straw, hay, &c., for fodder; and it consists in the employment or use of two feed-rollers and an adjustable stationary knife in connection with rotating knives, all constructed and arranged to operate in the manner substantially as hereinafter shown and described, whereby fodder may be cut with rapidity and with but a moderate expenditure of power.

A represents a feed-box, which may be constructed in the usual way and supported by a framing, B. These parts, being well known and in common use, do not require a special description.

C C′ represent two feed-rollers, which are placed one over the other, in the same axial plane, and extend across the mouth of the feed-box, which mouth has a metal lining, D, to the sides of which the bearings *a* of the feed-rollers are attached. The lower feed-roller, C, has a smooth periphery, but the upper one is fluted longitudinally. The two rollers C C′ are connected at one end by gears *b b*.

E represents a knife, which is placed at the outer side of the lower feed-roller, C. One end of this knife is formed or provided with a tang, *c*, which is fitted under a projecting lip, *d*, at one side of the lining D, the opposite end of the knife being provided with a tang, *e*, which projects upward and is fitted under a lip, *f*, at the opposite side of the lining. The tang *e* has a spiral spring, *g*, bearing against it, which has a tendency to keep the upper cutting-edge of the knife pressed outward, so that the knife will have an oblique position, as will be understood by referring to Figs. 1 and 4. The knife E rests upon a taper or wedge-shaped plate, F, which is attached to the lining D by a screw, *h*, the latter passing through an oblong slot, *i*, in F and into the lining D. The plate F may be adjusted longitudinally by loosening the screw *h*, and the knife E adjusted higher or lower, as may be desired. By this arrangement wear of the knife E may be compensated for.

On one end of the axis of the lower feed-roller, C, there is fitted a bevel-wheel, G, the opposite end of said axis having a crank, H, upon it. The bevel-wheel G gears into a bevel-pinion, I, on a shaft, J, the bearings *j j′* of which are at one side of the lining D, the back bearing, *j′*, being adjustable laterally, and to admit of that adjustment arranged or devised in any proper way. The shaft J is at right angles with the axes of the feed-rollers, and the pinion I is attached to or cast with a hub, K, having two knives, L L, attached radially to it at opposite points, the outer ends of said knives being attached to heads M M, which are connected to projections *k k* on the hub K by curved rods *l l*, or connected in any other proper manner. The hub K, heads M M, and rods *l l* may all be cast in one piece. The knives L L have a raking or an oblique position, and they work snugly over the cutting-edge of the knife E, the plane of the rotation of the knives L L being parallel with the axes of the rollers C C′. The spring *g* serves to keep the knife E snugly pressed against the knives L L, and by having the rear bearing, *j′*, of the shaft J adjustable laterally, as previously alluded to, the knives L L may be adjusted in such a relative position with the knife E as to insure the latter pressing against the former. The feed-rollers C C′ feed the straw, hay, or other substance to the knives E L L, the former being cut by the passage of the knives L L over E.

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

1. The combination of the rotary knives L L, hub K, braces *l l*, stationary knife E, and

feed-rollers C C′, all constructed, arranged, and operating substantially as and for the purposes specified.

2. The adjusting of the knife E by means of the sliding wedge F, arranged substantially as and for the purpose specified.

3. The spring *g*, when applied to the knife E and used in combination with the rotating knives L L, substantially as and for the purpose set forth.

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Witnesses:

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