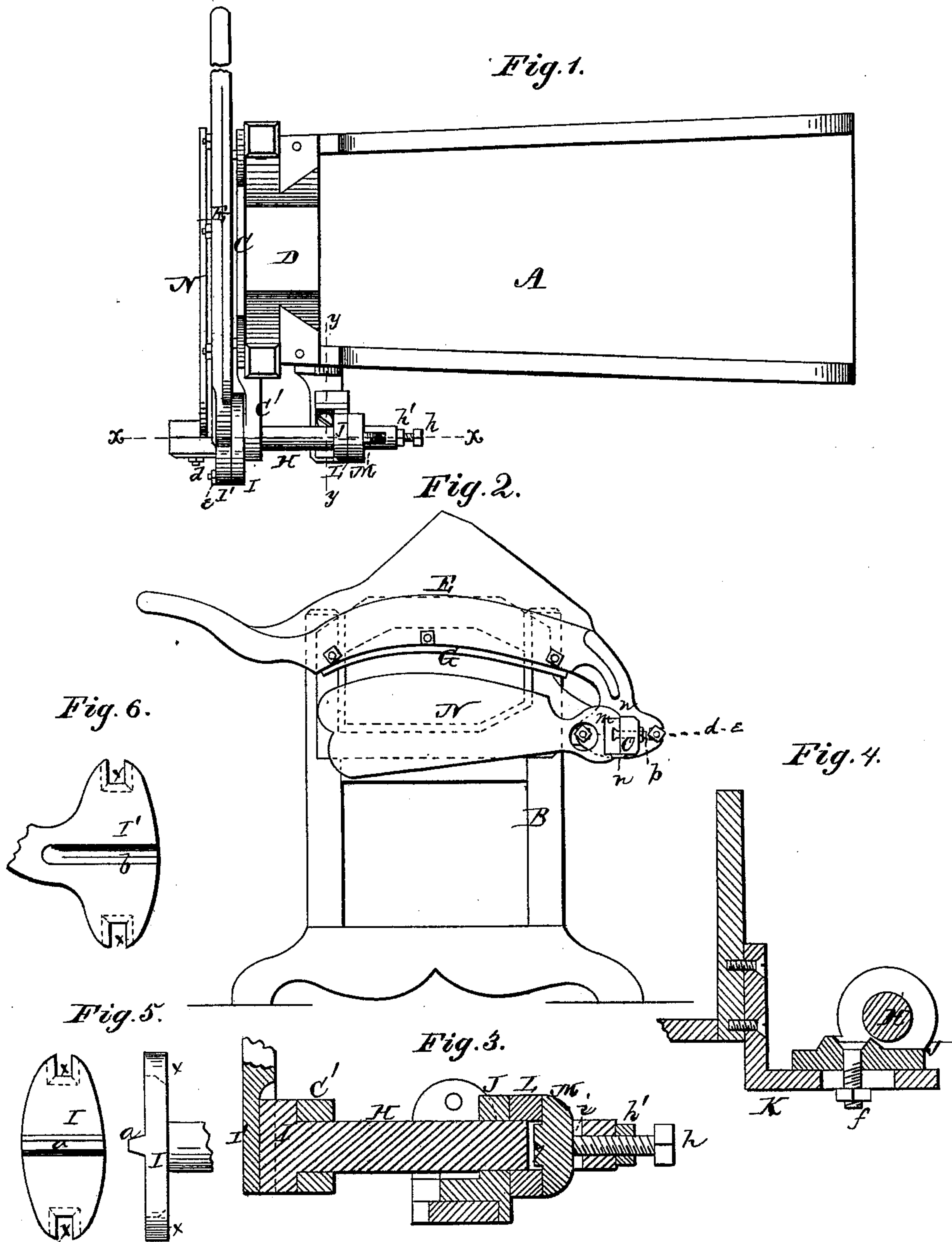


W. O. BRYAN.

FEED-CUTTER.

No. 176,275.

Patented April 18, 1876.



WITNESSES

Henry N. Miller
C. L. Ewert,

By

INVENTOR

Winfield O. Bryan.
Alexander Mason
Attorney S.

UNITED STATES PATENT OFFICE

WINFIELD O. BRYAN, OF SODUS, NEW YORK.

IMPROVEMENT IN FEED-CUTTERS.

Specification forming part of Letters Patent No. 176,275, dated April 18, 1876; application filed October 21, 1875.

To all whom it may concern:

Be it known that I, WINFIELD O. BRYAN, of Sodus, in the county of Wayne, and in the State of New York, have invented certain new and useful Improvements in Feed-Cutters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to that class of machines for cutting hay, straw, corn-stalks, &c., for feed, in which a pivoted lever-cutter is used in front of the feed-box; and the nature of my invention consists in the construction of the devices whereby the rocking shaft, to which the lever-cutter is fastened, is adjusted and fastened in the desired position. It also consists in the construction and means for attaching the gage in front of the lever-cutter, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of a feed-cutter embodying my invention. Fig. 2 is a front elevation of the same. Figs. 3, 4, 5, and 6 are detached views of parts thereof.

A represents the feed-box, supported upon a frame, B, and provided with the throat-piece C and guard D. E is the lever-handle, provided with the cutter G, fastened thereto by bolts. These parts may all be constructed in any of the known and usual ways in this class of machines.

The throat-piece C is provided with a projecting arm or ear, C', through which the rocking shaft H passes, said shaft being, at its forward end, provided with an oval or elliptical plate, I, which has a rib, *a*, across the center, and a slot, *x*, at each end.

The lever-handle E is, at its inner end, provided with a similar plate, I', having also a slot at each end, and a groove, *b*, across the center.

In putting these parts together the rib *a* fits in the groove *b*, and bolts *d* are passed

through the slots *x* in the plates, with nuts *e* screwed on the ends thereof to tighten the parts, whereby the lever-handle becomes fastened to the shaft.

When necessary to remove the handle from the shaft, the nuts *e* are simply loosened a trifle, when the bolts can be lifted out of the notches *x*, and the parts be separated without detaching the nuts from the bolts.

The shaft H passes through a rear bearing, J, which is fastened, by means of a bolt, *f*, to a horizontal arm, K, attached to and projecting from the side of the box A. This arm is slotted longitudinally, and the bolt *f* passes through said slot, so that the box or bearing J can be adjusted at will out or in on the arm K, thereby securing any required angular adjustment of the cutting-knife. On the shaft H, back of the bearing J, is placed a collar, L, and a key, M, is passed through a slot, *i*, in the shaft back of said collar. This key has a tongue, *y*, which enters the center hole in the collar, as shown in Fig. 3, and a set-screw, *h*, is passed through the end of the shaft against the back of the key, whereby the shaft is so drawn backward that the plate I will be up against the front side of the arm C'. By this means the wear of the parts can be easily taken up as required. The set-screw *h* is held stationary in place by a jam-nut, *h'*.

N represents the gage, which is, at its inner end, provided with a lug or projection, *m*, having projecting flanges *n n* on its sides. Between these flanges in the lug is a dove-tailed groove, to receive the head of a bolt, *p*, which passes through a hole in a projection, O, extending forward from the plate I' at the inner end of the lever-handle, and fastened by a nut on the end of the bolt, the flanges *n* fitting over the sides of said projection O, holding the guard steady and firmly in position. By these means the guard can be adjusted out from, or in toward, the knife, as desired.

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

1. The combination of the shaft H, having plate I, provided with the rib *a* and open-end slots *x*, the lever-handle E, having plate I', pro-

vided with the groove *b* and similar slots, the bolts *d*, and nuts *e*, substantially as and for the purposes herein set forth.

2. The combination of the rocking shaft *H*, provided with the slot *i*, and having the lever-handle *E* rigidly secured thereto, the stationary bearing *C*, adjustable bearing *J*, collar *L*, key *M*, with tongue *y*, set-screw *h*, and jam-nut *h'*, all as shown and described, and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of September, 1875.

WINFIELD O. BRYAN. [L. S.]

Witnesses:

E. W. KELLY,
C. D. CLARK.