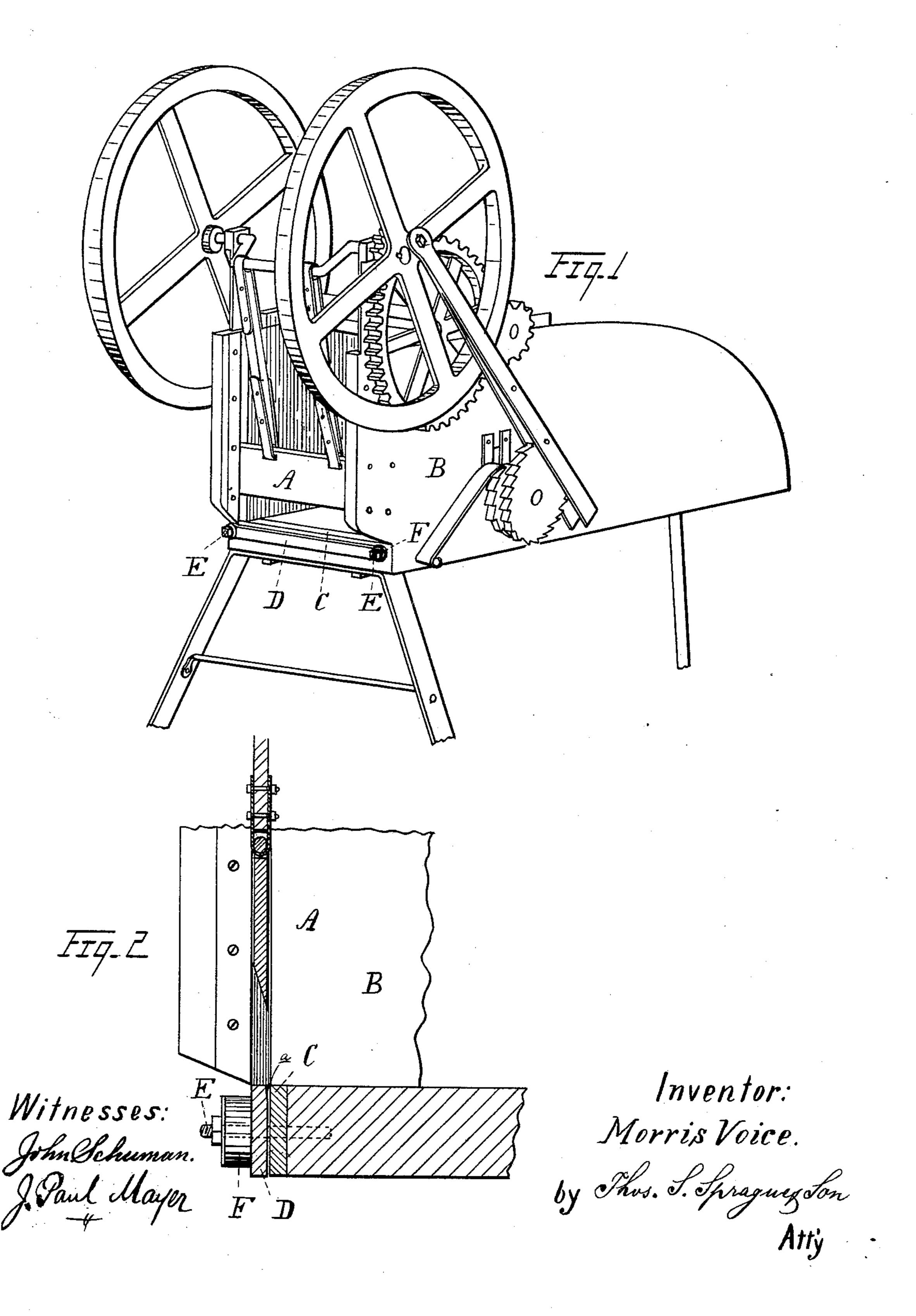
(No Model.)

M. VOICE.
FEED CUTTER.

No. 406,976.

Patented July 16, 1889.



## United States Patent Office.

## MORRIS VOICE, OF LAPEER, MICHIGAN.

## FEED-CUTTER.

SPECIFICATION forming part of Letters Patent No. 406,976, dated July 16, 1889.

Application filed October 3, 1888. Serial No. 287,119. (No model.)

To all whom it may concern:

Be it known that I, Morris Voice, a citizen of the United States, residing at Lapeer, in the county of Lapeer and State of Michigan, have invented certain new and useful Improvements in Feed-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in feed-cutters; and the invention consists in the peculiar construction of the cutting devices, all as more fully hereinafter described, and set forth in the accompanying drawings, in which—

Figure 1 is a perspective view of an ordinary feed-cutter to which my improvement is applied, and Fig. 2 is a vertical central cross-section through the stationary and movable part of the cutting devices.

A represents the vertical reciprocating knife of a straw-cutter of ordinary construction and operation.

B is the feed-box in which the feed is fed to the knife.

C is a stationary knife-bar secured to the front end of the feed-box, against which the cutting-edge of the movable knife operates in the usual manner, and D is another knife-bar secured in front of the stationary knife-bar common common bolts E and elastic washers F, interposed between the head of the bolts and the bar D.

In practice the outer bar D is adjusted in such proximity to the stationary knife-bar C that the cutting-edge of the knife may enter freely between the two about one-eighth of an inch and then crowd the outer bar, which is adapted to move by compressing the elastic washers. These elastic washers are preferably constructed of rubber, and can be adjusted by means of the nuts on the bolts to offer more or less resistance to the crowding of the movable knife.

The advantage of my construction is, that the straw or other feed is given a support on 45 each side of the knife, so that a single straw is cut as perfectly as if it was a large cornstalk, and all tearing is avoided, as every particle is cut cleanly and with less power than required for doing the same work with the 50 ordinary construction.

I deem it important that the bars C D be arranged parallel to each other and that the inner upper edge of the bar D be slightly beveled toward its inner side, as shown at a, 55 to form a guide for the knife A as it first enters between the bars.

What I claim as my invention is—

1. In a feed-cutter, the combination, with the reciprocating knife, of the stationary cut- 60 ting-bar C and the adjustable bar D, having its inner upper edge beveled, as at a, and secured in front of and parallel with the bar C by means of the bolts, nuts, and elastic washers, substantially as and for the purpose specified.

2. In a feed-cutter, the combination, with the box and the reciprocating cutting-knife, of the stationary bar C, the bar D, parallel therewith and beveled upon its inner upper 7° face, as shown at a, the bolts passed loosely through the bar D, through the bar C, and into the box, and the elastic washers on said bolts between the nut thereon and the bar D, substantially as and for the purpose specified. 75

In testimony whereof I affix my signature, in presence of two witnesses, this 7th day of September, 1888.

 $MORRIS \underset{mark}{\overset{his}{\times}} VOICE.$ 

Witnesses:
GEORGE CRANKSHAW,
PETER STINER.