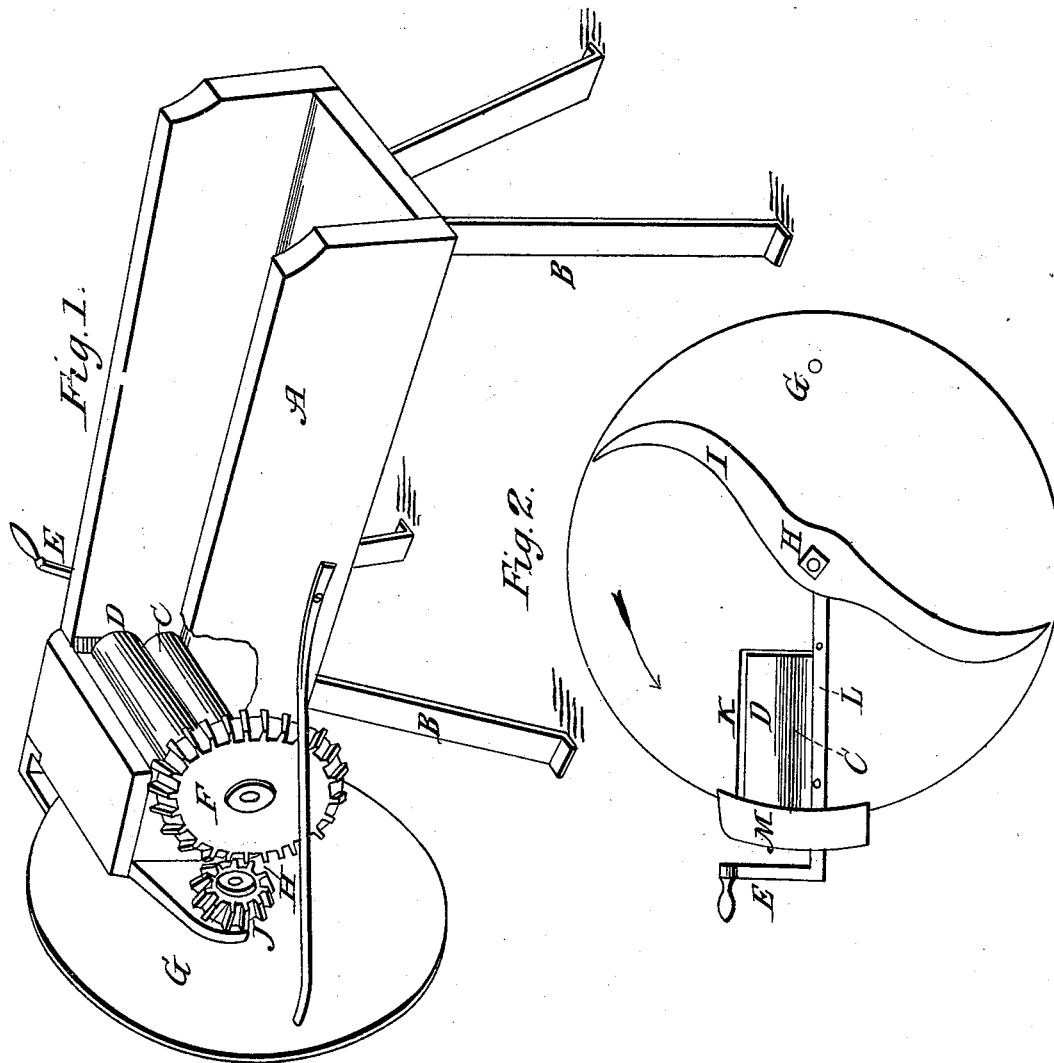


L. B. HOIT.
Straw Cutter.

No. 54,351.

Patented May 1, 1866.



Witnesses:

J. H. Phillips
Frank Smith

Inventor:

L B Hoit

UNITED STATES PATENT OFFICE.

L. B. HOIT, OF CEDAR FALLS, IOWA.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. 54,351, dated May 1, 1866.

To all whom it may concern:

Be it known that I, LORA B. HOIT, of Cedar Falls, Iowa, have invented new and useful Improvements in Straw-Cutting Machines; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view, and Fig 2 is a front view.

Like letters refer to like parts in the different views.

The nature of my invention relates to the combination of devices for driving the rotating knife and to the guide for holding the knife that revolves in contact with the stationary knife during the act of cutting.

A represents the box of the machine. This is constructed in the ordinary form, and is supported upon two pairs of legs, B. Near the mouth of the box A, I place two feed-rollers, C D, the lower one, C, having its journals in fixed boxes. The upper one, D, has its journal-boxes pressed downward by springs.

The shaft of the roller C has its shaft projecting through both sides of the box A. Upon the right-hand end is affixed a crank, E, by which it is propelled, and the roller D, by pressure, moves in concert with it, and the straw is fed to the knife between them. Upon the left-hand end of the shaft of the lower roller, C, is affixed a bevel-gear wheel, F, of at least twice the diameter of the roller C.

To the front end of the box A, I attach a metallic disk, G, the diameter of which is a little more than twice the width of the mouth of the box. This disk is so attached to the mouth of the box that its center is a little to the left-hand side, and through the center of this disk the journal H of the revolving knife I passes.

To the inner end of the journal H, I attach the bevel-gear J, the diameter of which is about one-half that of the gear F, so that the shaft H, which receives its motion from the wheel F, through the wheel J, has an accelerated motion.

To the outer end of the journal-shaft H, I attach the knife I, which has two curved cutting-blades, as shown in Fig. 2, and which revolves in the direction of the arrow.

That part of the disk G which covers the mouth of the box A is provided with a rectangular opening, as shown at K, Fig. 2, of the size of the mouth of the box. The lower border of this opening is provided with the stationary knife L, and upon the outer margin of the mouth K is affixed a guide, M, which serves to keep the point of the knife I from springing away from the stationary knife L during the act of cutting.

Operation: The straw is put into the box A. The operator takes hold of the crank with the right hand and puts the machine in motion, and with the left hand feeds the straw up to the rollers, and the rapid revolution of the knife cuts the straw.

Three, or even four, knives may be used if desired.

The disk G serves to protect the operator from accident or injury from the rapidly-rotating knife.

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

The combination and arrangement of the rollers C D, wheels F J, disk G, and knife I, as and for the purpose specified, and, in combination therewith, the guide M, as set forth.

L. B. HOIT.

Attest:

WM. H. SESSIONS,
J. Q. A. CROSBY.