A. C. STEWART.

Feed-Cutter.

No. 165,963. Patented July 27, 1875.

Fig. 1.

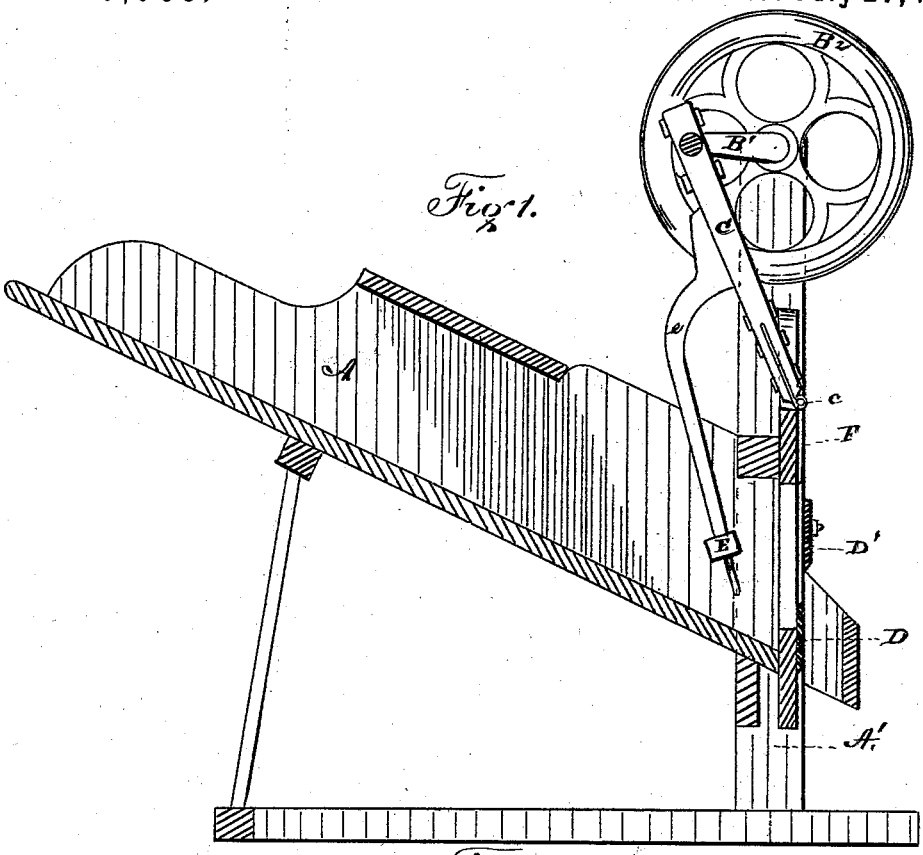
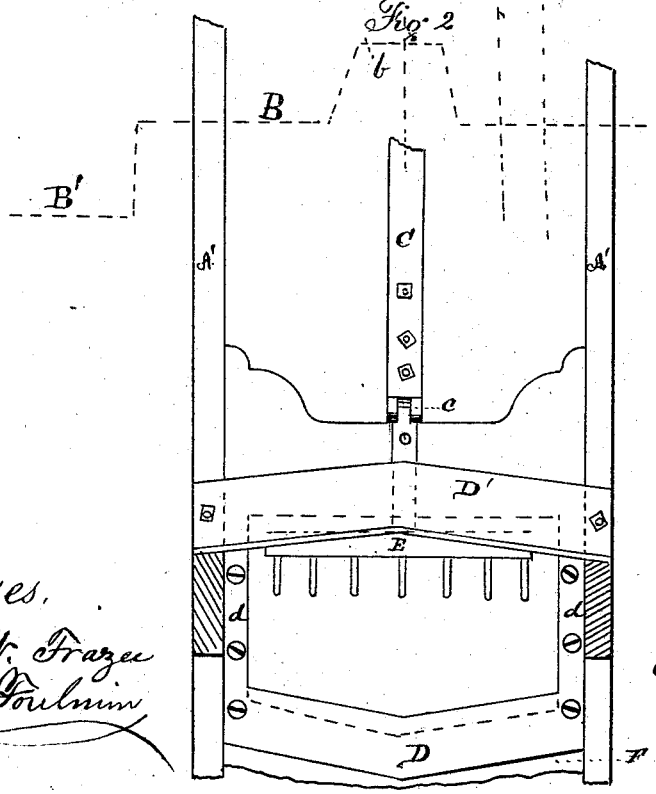


Fig. 2



Witnesses.
John W. Frazee
Morton Poulnin

Inventor
A. C. Stewart

UNITED STATES PATENT OFFICE.

ALSON C. STEWART, OF WALTON, NEW YORK.

IMPROVEMENT IN FEED-CUTTERS.

Specification forming part of Letters Patent No. **165,963**, dated July 27, 1875; application filed December 30, 1874.

To all whom it may concern:

Be it known that I, ALSON C. STEWART, of Walton, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Straw and Hay Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Figure 1 is a sectional side elevation. Fig. 2 is a front elevation of the knives and cutter.

The object of my invention is to improve that class of straw-cutters which give a lifting or pulling, instead of pushing, motion to the cutting-knife. My invention consists of certain details of construction first described and afterward pointed out in the claim.

Like letters refer to like parts.

A is the feed-box of the cutter, which has two stationary uprights, A′, to which the axle B is journaled. This axle has a pitman, *b*, and is operated by the crank B^1. It has a fly-wheel, B^2. C is the rod connecting the knife D to the pitman. D′ is the stationary or fixed knife. E is the feed-fork, which is fastened to the rod C by bolt and nut. The rod C is fastened to the frame F by a hinge-joint, *c*. The fork E has a bent arm, *e*, as shown in Fig. 1. The frame F is made to fit between the uprights A′, and has for guides the knife D′ and the end of the feed-box A. The knife D makes the cut in the upward motion, which gives the operator the advantage of a pulling, instead of a pushing, motion when making it. The knives are made angular in form, as shown in Fig. 2, which give a shearing cut. The elliptical motion imparted to the upper end of the rod C by the upward movement of the pitman *b* operates upon the frame F, so as to bring the edges of the knives D and D′ together, making a clean close cut. In case the frame F becomes worn by use, thereby giving so much play as to affect the cutting, the space in which it plays can be lessened by setting the knife D′ deeper into the uprights A′. The knife D has two arms or shanks *d*, (shown in Fig. 2,) which give greater strength to the frame F, as well as security in the fastening. The elliptical motion imparted to the fork E by the rod C and pitman *b* is egg-shaped, having the larger diameter downward. Each revolution of the axle B causes the fork E to penetrate the sheaf of grain or fodder in the feed-box A, and in the same movement shoves it forward between the knives ready for cutting. The upward motion of the pitman makes the cut by means of the knives, and at the same time withdraws the fork E from the sheaf, leaving it ready for insertion in the sheaf again at the next revolution, and at the proper distance for cutting. The length of the cut feed is regulated by the length of the arm *e*. The rod C and arm *e* may be formed of one piece when made of metal, either cast or wrought.

Having thus fully described my invention, I claim—

The angular knife D, supported in the frame F, and cutting upward against the stationary knife D′, at the end of the inclined feed-box A, in combination with the hinged rod C, pitman *b*, and fork E, as shown and described, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of December, 1874.

ALSON C. STEWART.

Witnesses:
E. C. WEAVER,
J. M. MCNEILL.