(No Model.) 2 Sheets—Sheet 1.

J. A. CORNISH.

Straw Cutter.

No. 241,306. Patented May 10, 1881.

Fig. 1.

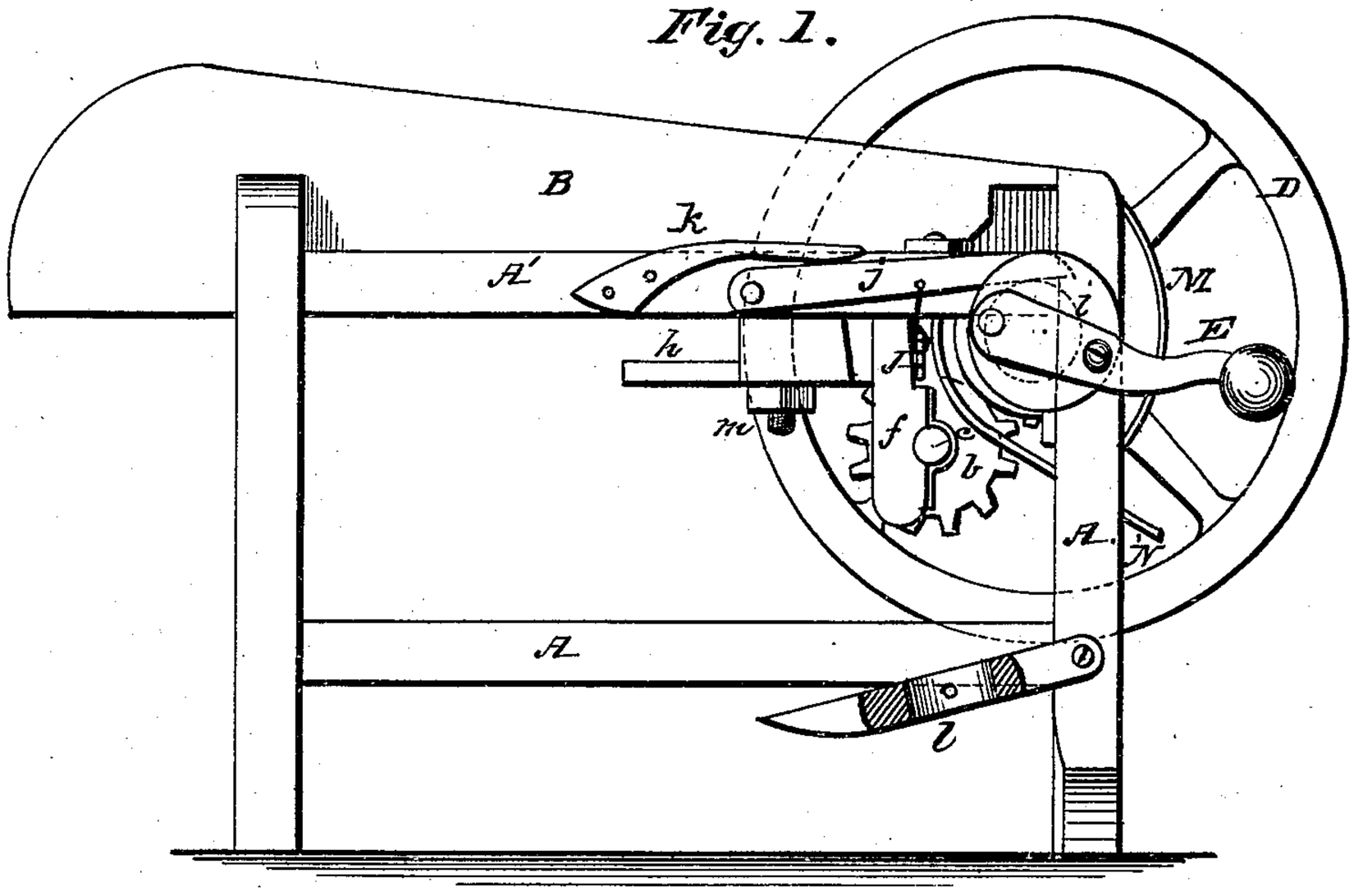
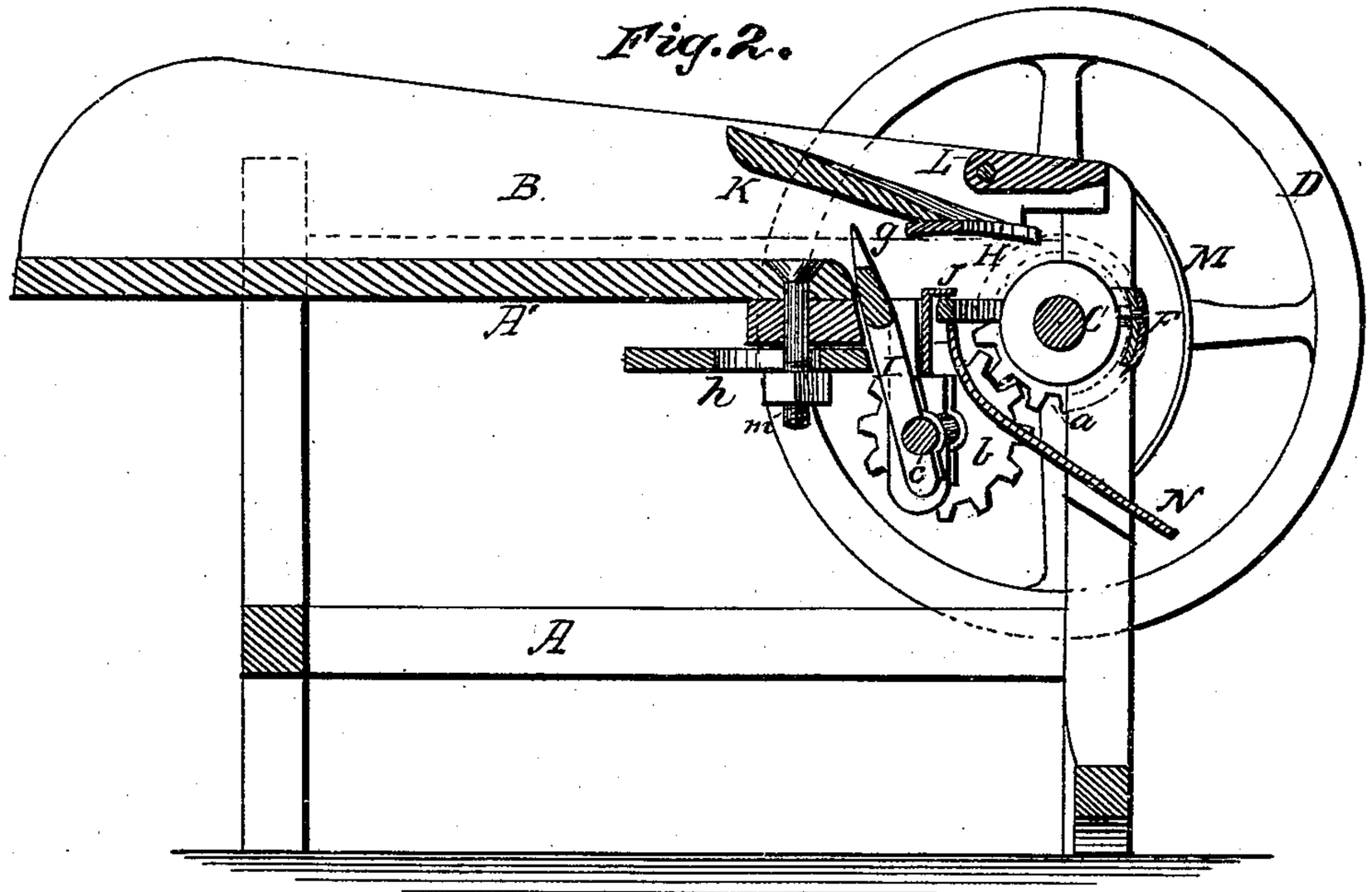


Fig. 2.



Witnesses:

P. C. Dieterich.

Fred. J. Dieterich

Inventor

J. A. Cornish.

Per C. H. Watson & Co. Attorneys.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

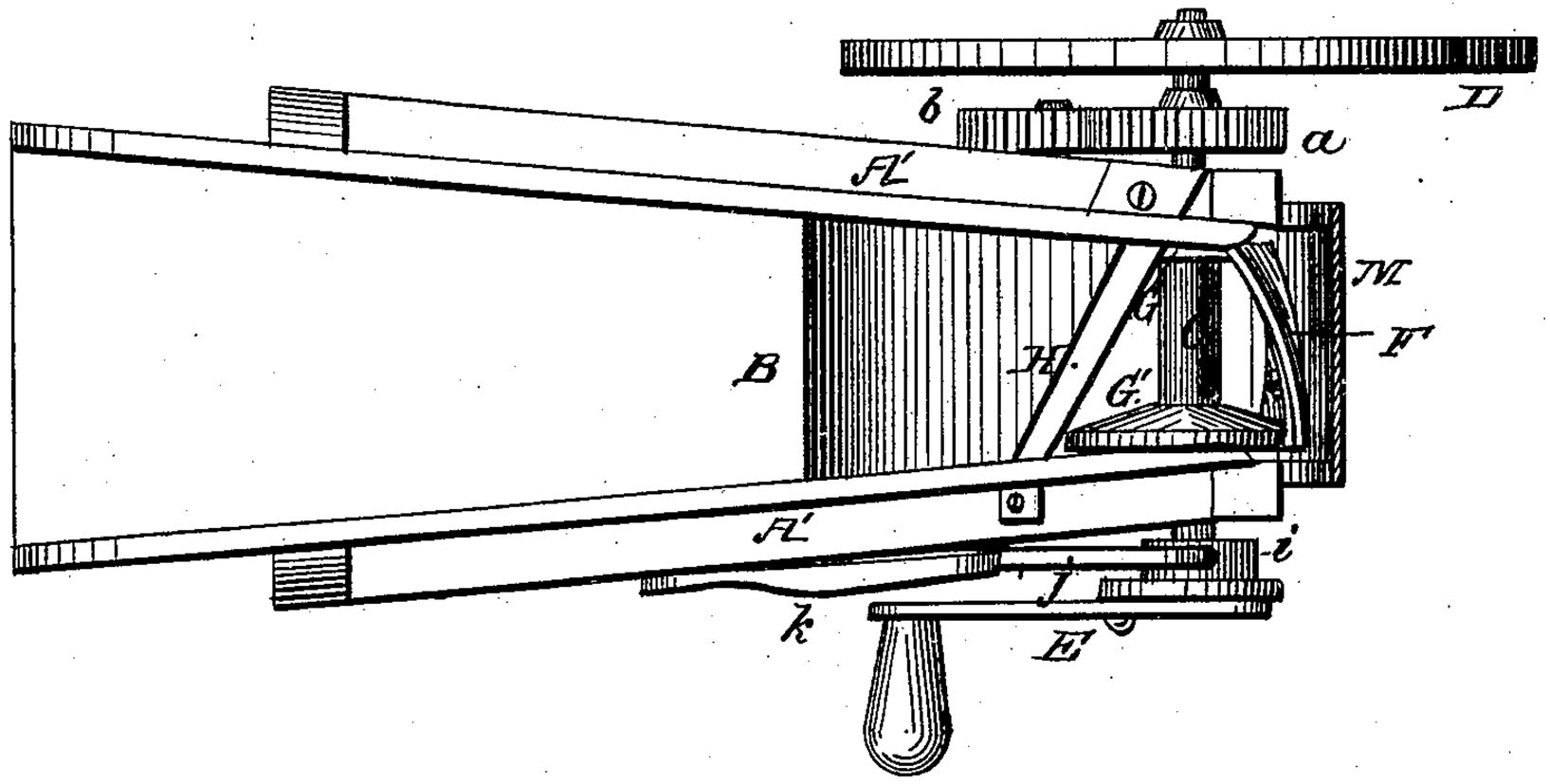
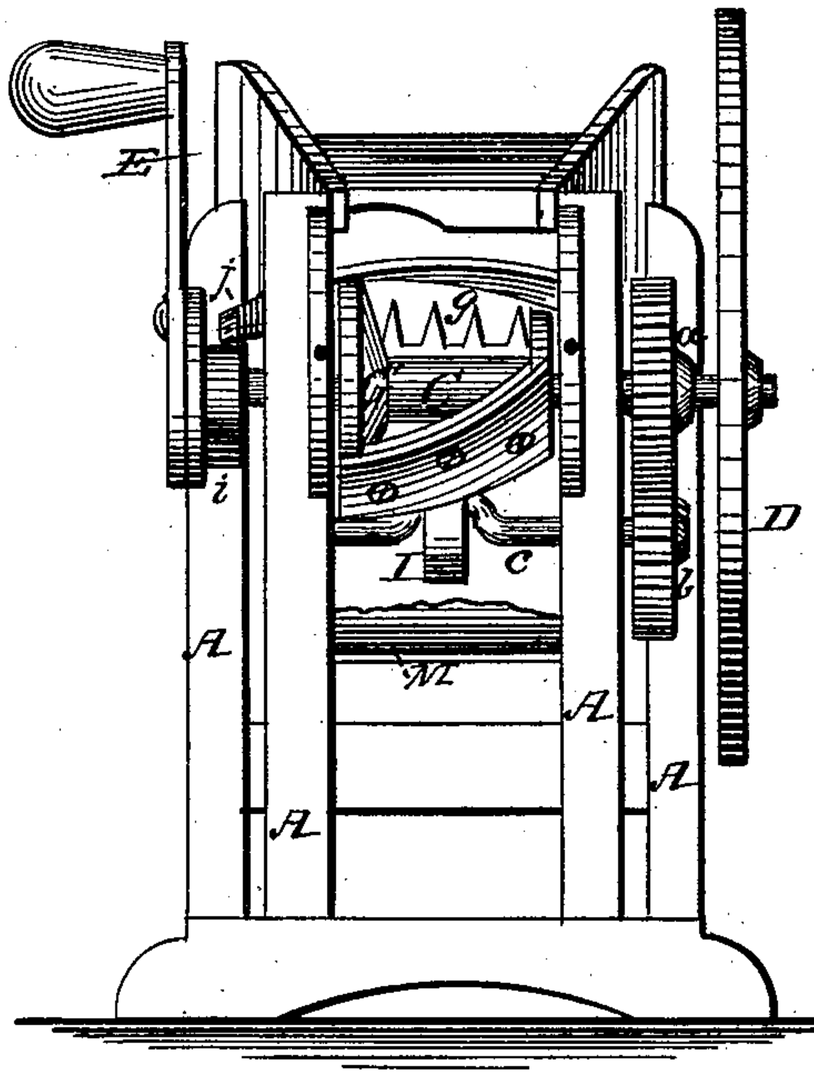


Fig. 4.

Fig. 5.



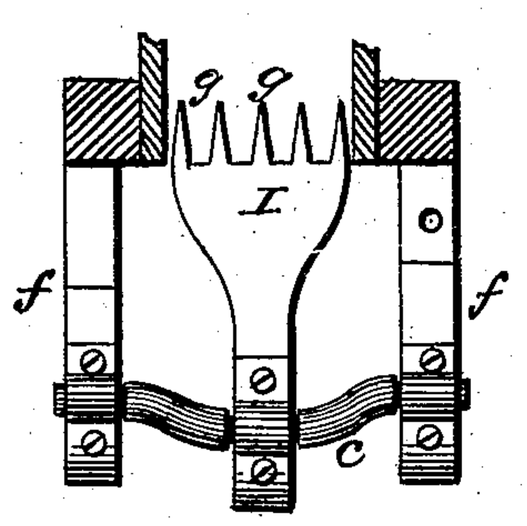
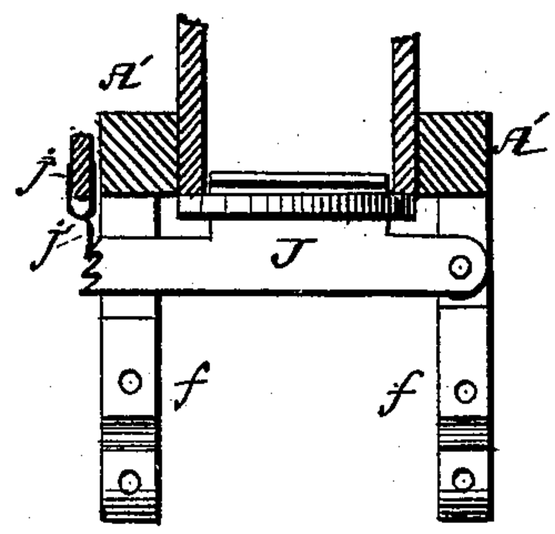


Fig. 6.



Witnesses:
P. C. Dieterich.
Fred. G. Dieterich

Inventor
J. A. Cornish.
Per C. H. Watson & Co Attorneys.

UNITED STATES PATENT OFFICE.

JOHN A. CORNISH, OF PARIS, TEXAS.

STRAW-CUTTER.

SPECIFICATION forming part of Letters Patent No. 241,306, dated May 10, 1881.

Application filed August 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, J. A. CORNISH, of Paris, in the county of Lamar and State of Texas, have invented certain new and useful Improvements in Feed-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in straw-cutters; and it consists in the construction and arrangement of parts as will be hereinafter more fully set forth, and pointed out by the claims.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a side elevation; Fig. 2, a central vertical section; Fig. 3, a plan view; Fig. 4, a front view, and Figs. 5 and 6 details.

The frame of the machine is represented by A A′, and supports on suitable cross-pieces a trough, B, made in the usual manner. At the front end of this frame is arranged the cutter-shaft C, which carries upon one end the balance-wheel D, and upon the other a crank, E.

Upon the cutter-shaft C, within the sides of the trough B, are secured the disks G G′, the latter or disk G′ being of greater diameter than the disk G and having a conical or beveled inner face. To bars extending between these disks are attached the cutters F by means of suitable bolts. These cutters are arranged on the disks G G′ in an angular or oblique position, and are thus enabled to give the proper draw-cut when the shaft C is revolved.

A bed-knife, H, is secured to the side girts, A′ A′, on each side of the bed of the trough, and extends diagonally across the same, in the rear of the disks G G′.

At the inner side of the balance-wheel D, and secured to the shaft C, is a pinion, *a*, which meshes with a pinion, *b*, upon a crank-shaft, *c*, said shaft being arranged below and to the rear of the cutter-shaft C, and having its bearings in standards *f f*, secured to the under side of the trough.

To the center of the crank-shaft *c* is pivoted a feeder, I, which extends up through a slot in the bottom of the trough in the rear of the cutters, and is provided on its free end with a series of teeth, *g*, for feeding the straw forward, as shown in Figs. 4 and 5. Owing to the manner in which it is arranged the motions of this feeder are successively upward, forward, downward, and backward, and its length of stroke is varied, as desired, by means of the adjustable slide *h*, which is movable backward and forward and held in place by the bolt and nut *m*.

J represents the presser, which is hung across the under side of the trough, resting on its bottom in the rear of the cutters, and arranged in recesses in the upper part of the standards *f f*, to one of which it is pivoted, so as to be automatically operated by means of an eccentric, *i*, upon the cutter-shaft C, which eccentric raises and lowers a pivoted bar, *j*, pressing against the same, and to which is hung the presser by means of a loop, *j′*, the bar *j* being kept in position upon the eccentric *i* by the pressure of a spring, *k*. The presser J is thus arranged to act in conjunction with the bed-knife H, which also serves, together with the lower end of the guard K, as a stationary presser, to assist in holding the straw while it is being cut by the knives or cutters F. It will also be seen that the motions of the presser and cutters are timed with those of the feeder I, so that the straw may be regularly fed forward without interruption from the same.

Extending backward in an inclined position from the bed-knife H is a stationary guard or presser, K, that directs the straw forward and holds it down first to the teeth of the feeder I and afterward to the gripe of the presser J; and above the cutter-shaft is a similar pivoted guard, L, that prevents the cut straw from flying upward. Another guard, M, may be arranged in front of the cutters, if desired, in order to prevent the cut straw from being blown off in that direction, and it is thus caused to fall into the spout N below the cutters, whence it may be received in any suitable receptacle.

From the foregoing description the operation and advantages of the machine will be apparent.

If desired, the crank E may be removed and the machine operated by means of the treadle *l*, suitably connected with the cutter-shaft.

The machine is simple, durable, and inexpensive in construction, will not readily get out of repair, and will perform the necessary work in an efficient manner.

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

1. The combination of the trough B, shaft C, having eccentric *i*, presser J, bar *j*, and spring *k*, substantially as and for the purpose specified.

2. The combination of the slotted trough B, diagonally-arranged bed-knife H, cutter-shaft C, having obliquely-arranged cutters F, pinion *a*, and eccentric *i*, crank-shaft *c*, having pinion *b* and toothed feeder I, presser J, bar *j*, and spring *k*, substantially as and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN A. CORNISH.

Witnesses:
WILL J. HAMNER,
F. J. CLARK.