(No Model.)

O. ARNOLD.

OSCILLATING CUTTER FOR CARD SETTING MACHINES.

No. 284,161. Patented Sept. 4, 1883.

Fig. 2.

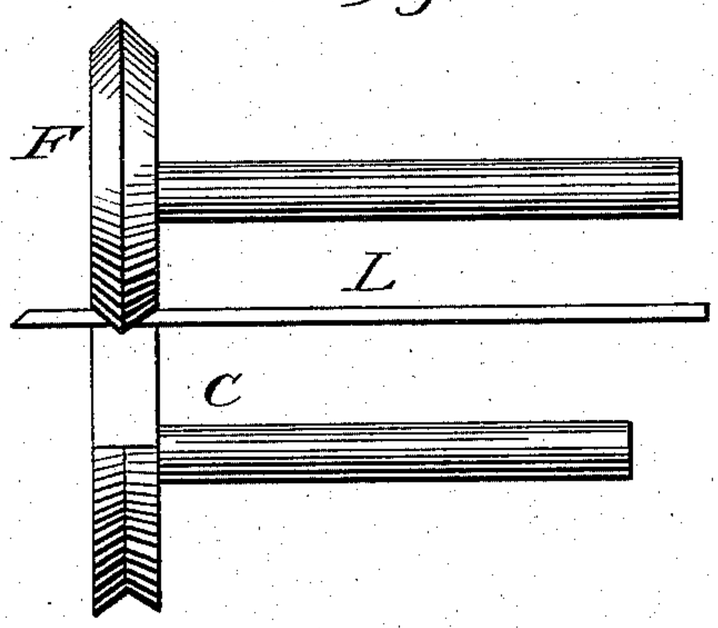


Fig. 1.

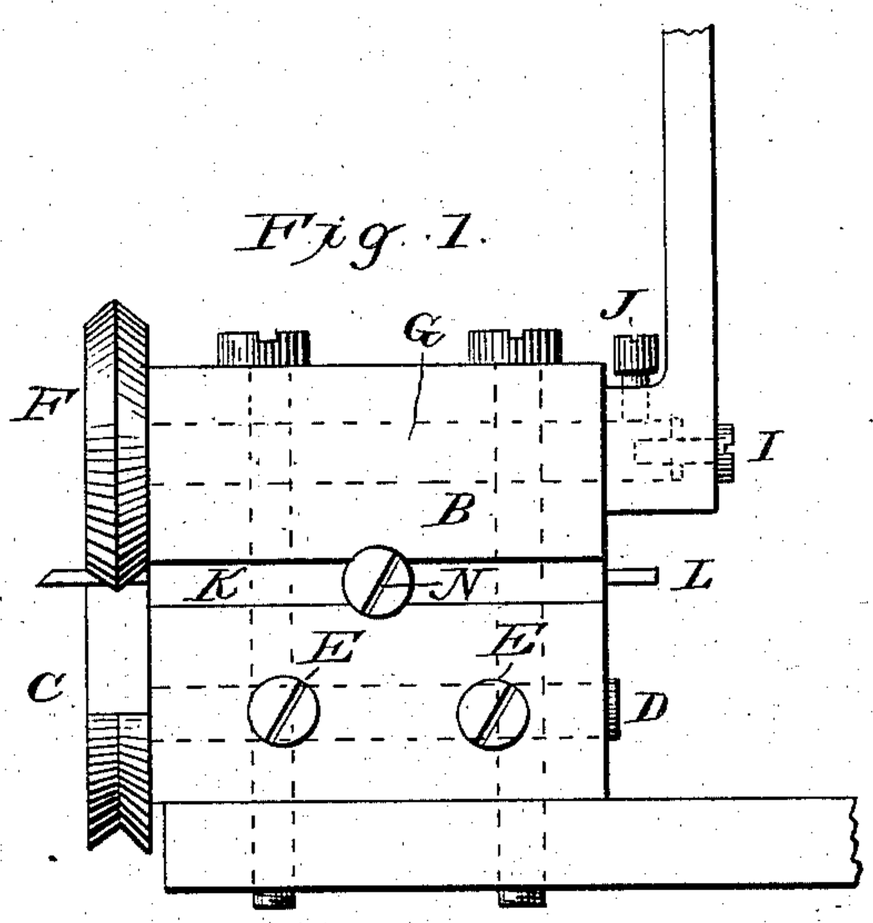


Fig. 3.

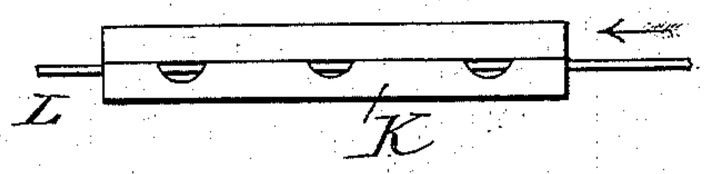


Fig. 6.

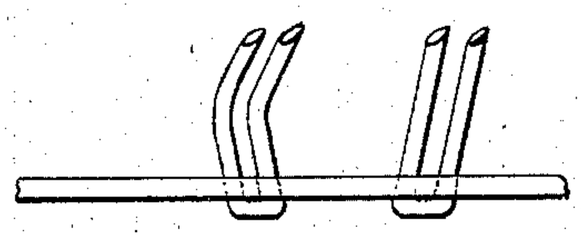
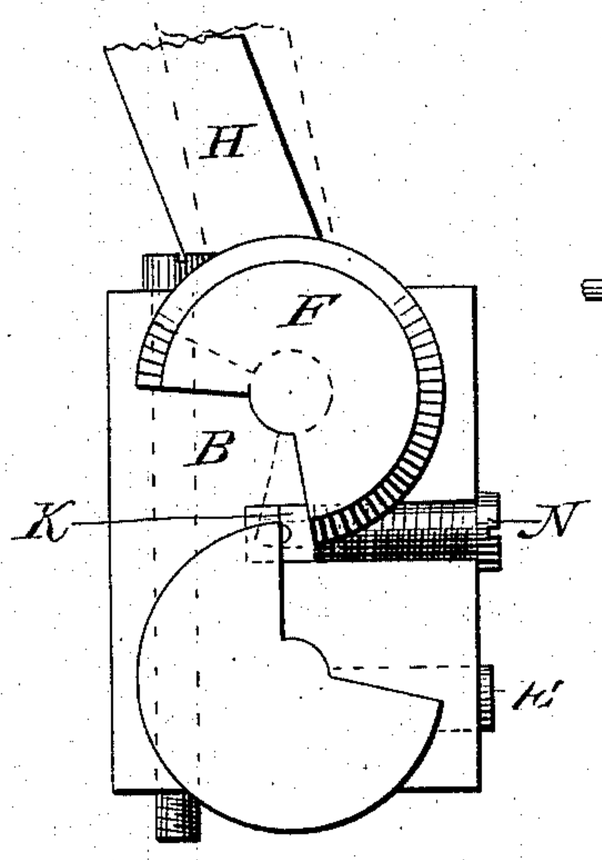


Fig. 4.

Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

OLIVER ARNOLD, OF WORCESTER, MASS., ASSIGNOR TO THE T. K. EARLE MANUFACTURING COMPANY, OF SAME PLACE.

OSCILLATING CUTTER FOR CARD-SETTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 284,161, dated September 4, 1883.

Application filed March 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, OLIVER ARNOLD, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Ocillating Cutter for Card-Setting Machines, of which the following is a specification.

My invention relates to improvements in cutters for card-setting machines, in which the cutters are made circular. The objects of my invention are, first, to afford facilities for simple and rapid sharpening and adjustment of the cutters; second, to obtain long wear and uniformity of the bevel of the cutting-edges; and third, to avoid liability of breaking or chipping, which is peculiarly liable in the old form of cutters. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the cutters properly adjusted in the block and attached to plate; Fig. 2, a view of cutters as they would appear if removed from block, and showing wire between cutting-edges. Fig. 3 is a top view of pipes (or guide,) showing course of wire through clearance-ways to the cutters; Fig. 4, a view of a section of wire as it would appear after being cut, and showing the chip detached; Fig. 5, an end view of cutters, showing opening in pipe which guides the points of the wire to the cutters; and Fig. 6 shows card-clothing teeth set in leather.

Similar letters refer to similar parts throughout the several views.

To the plate A is attached the block B B, forming a foundation and base. The stem of the cutter C is placed in its bearing D of block B, and firmly held in place by binder-screws E E. The stem of the cutter F is placed in its bearing G of the upper block, and protrudes through block B. To this stem is attached the oscillating lever H, and held firmly to lever by set-screw *i* and draft-screw I, drawing cutter F up snugly to face of block B B, but allowing chance enough for lever H to oscillate the cutter F. The foundation B is slotted horizontally, but previous to slotting a hole is drilled and threaded somewhat larger than width of said slot for the reception of a binder-screw, used to secure pipes K K in their place. The pipes (or guide) K K are made in two parts. The back or blank one is inserted first, and is of proper width to guide the wire to the point of a perpendicular line between centers of cutters F and G. The second or front part of guide is slotted lengthwise to admit the wire, and also grooved in three or more places transversely for receptacles of dirt or scale, that would otherwise be liable to foul the slot and prevent the free passage of the wire. Through the pipes (or guide) K K the wire L is allowed to pass to the cutters F and C, where it is cut off and pointed by a chip being taken out, thereby beveling in opposite directions both ends of a tooth. (See Fig. 6.) In Fig. 4 is illustrated a section of wire cut off and the chip M detached. The dotted lines in Fig. 5 of cutter F and lever H show the extent of the oscillation.

By removing cutters F and C the cutting-faces may be readily ground and replaced, (being previously tempered,) and repeated until the circle be nearly completed.

I am aware that prior to my invention cutters have been in use that oscillate. I therefore do not claim such a combination, broadly; but

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

A card-setting-machine cutter having circular cutters F and C, with stems inserted into their sockets D and G, cutter C being firmly held in place by binder-screws E E, and cutter F allowed to oscillate by lever H, substantially as described and set forth.

OLIVER ARNOLD.

Witnesses:
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ANNA E. BOSWELL.