

(No Model.)

W. H. CHRISTIE & C. KECK.  
CARD BOARD BEVEL CUTTING MACHINE.

No. 422,726.

Patented Mar. 4, 1890.

Fig. 1.

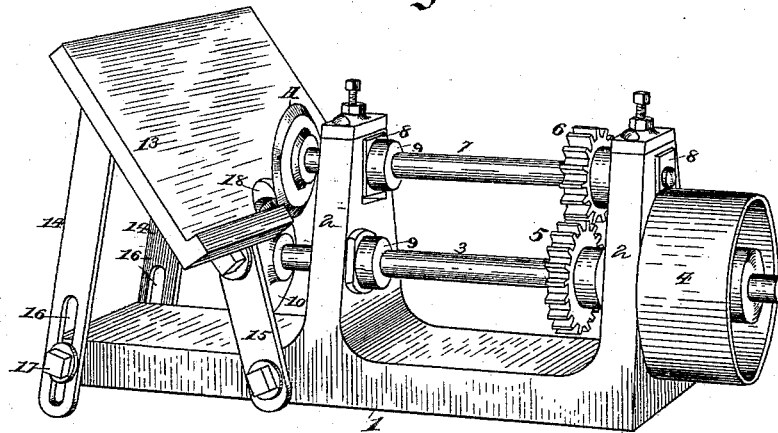


Fig. 2.

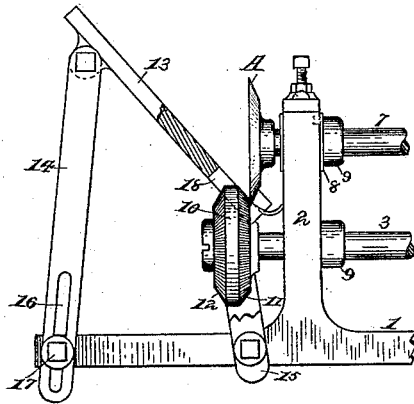
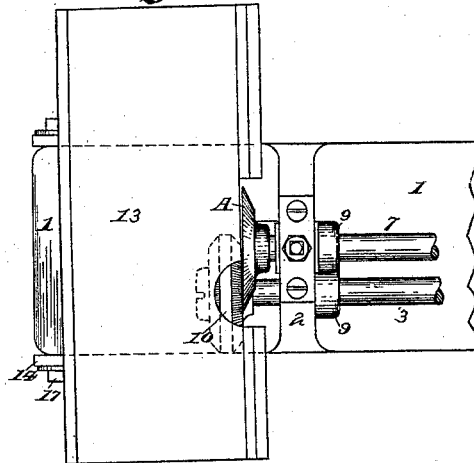


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM H. CHRISTIE AND CHRISTIAN KECK, OF CINCINNATI, OHIO.

## CARD-BOARD-BEVEL-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,726, dated March 4, 1890.

Application filed September 7, 1889. Serial No. 323,283. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM H. CHRISTIE and CHRISTIAN KECK, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Card-board-Bevel-Cutting Machines, of which the following is a specification.

The object of our invention is to provide a bevel-cutting machine adapted to cut card, straw, or paste board, or other similar material for bookbinding and other purposes.

Another object of our invention is to construct the machine so that it will be self-feeding.

Another object of our invention is to provide ready means for adjusting the machine to cut different bevels.

The features of our invention will be fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our invention in position for use. Fig. 2 is a broken sectional side elevation; Fig. 3, a top plan view of Fig. 2.

1 represents the base of the machine; 2, standards in which are journaled the operating parts. The frame is shown made of metal cast in one piece, which is the preferred form of construction.

3 is a shaft journaled in the standards 2. 4 represents the driving-pulley keyed thereon.

5 represents a spur-wheel meshing with spur 6, keyed upon shaft 7, which likewise journals in the standards 2.

8 represents the journal-boxes; 9, collars for holding the shafts in longitudinal position.

10 represents a feeding-wheel. The feeding portion is roughened, preferably by serrating the beveled face 11.

12 represents a serrated beveled face on the opposite side of the feed-wheel, having a different angle of inclination for the purpose of reversing the feeding-wheel in case it is desired to cut a bevel to which the face 12 is adapted. It will be understood, also, that another wheel having still different bevels may be substituted for the wheel 10.

13 represents a table supported upon the brackets 14 and 15. Brackets 14 are pro-

vided with slots 16 at their lower ends, through which pass set screw-bolts 17. Brackets 15 are hinged at one end to the frame and at the other end to the table 13, so as to accommodate themselves to the adjustment of the brackets 14. The table is thus capable of any adjustment to suit the incline of the different beveled faces designed to be used.

18 represents a circular recess cut in the table, through which the feed-wheel 10 is projected.

A represents a revolving cutting-disk keyed upon the shaft 7. The cutting-edge revolves in a plane just inside the lower edge of the beveled face 11 and against the vertical face of the feed-wheel, forming a shear cut.

It will be observed that the inclination of the table is parallel with the incline of the bevel of the feed-wheel, so that the friction imparted to the card-board by the beveled roughened face will more easily move the card-board along the table. The feed-wheel 10 performs the double function of affording a base for the object to be cut to rest upon and of automatically feeding it to the cutter.

We have shown the bevel 11 as serrated; but any other well-known friction-surface feed will be an equivalent thereof. It will be observed in Figs. 1 and 3 that the shaft 7 is not vertically over the shaft 3, but at one side of the vertical line. This arrangement allows the beveled face 11 to take hold of the card-board or other substance to be cut resting on the table before it reaches the knife, the feeding force being applied in front of the knife. Were the cutting-knife placed vertically over the feeding-wheel, the latter would have no practical capacity for feeding the card-board to the cutter.

While we have described this machine as a card-board cutter, we do not wish to limit ourselves to such a use, as it is practically adapted to cutting other material similar to card-board.

It will be observed that the cutting-disk revolves in a direction opposite to the feed-wheel, but the object to be cut being located between them they both operate to automatically feed said object.

It will be observed that the table is cut away slightly at the rear edge of the knife, so

as to form a clearance to prevent the chips from wedging in between the knife and table. This clearance should be from one-sixteenth to one-eighth of an inch.

5 Having described our invention, what we claim is—

1. A cutting-machine composed substantially of the table 13, provided with a recess through which projects the face of a friction  
10 feeding-wheel, and the revolving cutter A, having a shear contact with the edge of the feed-wheel, as herein specified.

2. A cutting-machine composed of the inclined recessed table, the wheel 10, having a  
15 beveled feeding-face, revolving cutter A, located upon one side of the feed-wheel, and

suitable mechanism for driving the feed-wheel and cutter, substantially as specified.

3. The cutting-machine composed substantially of the inclined recessed table 13, adjus- 20  
tably supported on the frame, the wheel 10, the cutting-disk A, mounted on shafts 3 and 7, and suitable mechanism for driving the cutting-disk A and feed-wheel 10 in opposite directions, substantially as specified. 25

In testimony whereof we have hereunto set our hands.

WILLIAM H. CHRISTIE.  
CHRISTIAN KECK.

Witnesses:

HAYWARD D. GATCH,  
J. WATSON SIMS.