

(No Model.)

2 Sheets—Sheet 1.

E. SALTZKORN & L. NICOLAI.
CARDBOARD CUTTER.

No. 535,025.

Patented Mar. 5, 1895.

FIG. 1

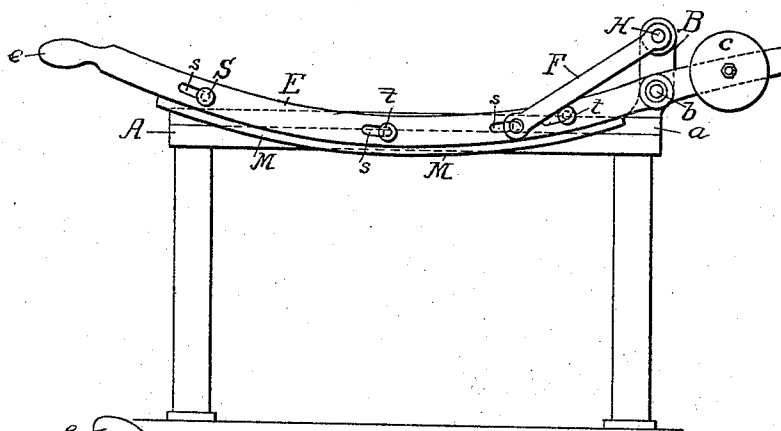


FIG. 2

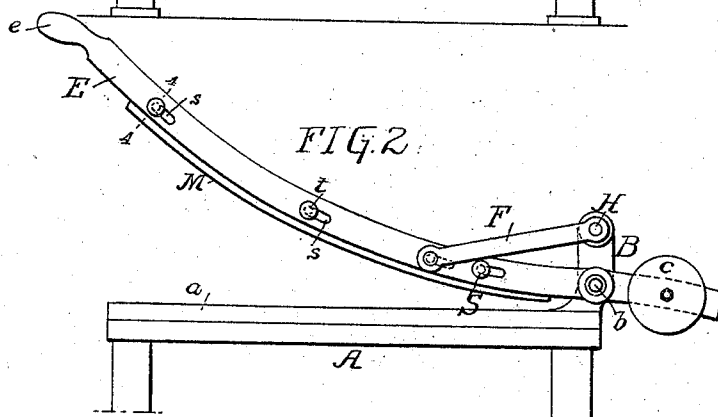
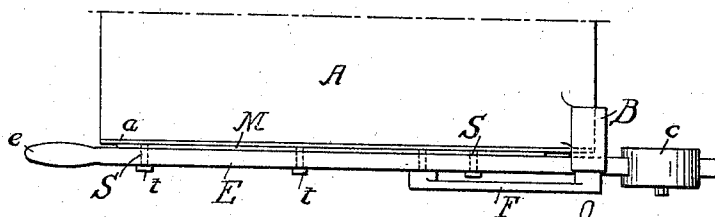


FIG. 3



Witnesses:
John Parker
J. Henderson

Inventors:
Emil Saltzkorn & L.
Ludwig Nicolai,
by their Attorney,
Horace Peter

(No Model.)

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FIG 5

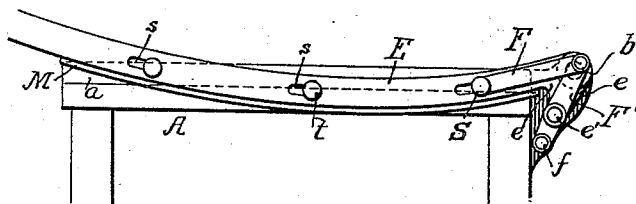
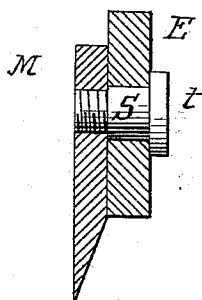


FIG 4



Witnesses:
John Parker
J. Henderson.

Inventors:
Emil Saltzkorn &
Ludwig Nicolai,
by their Attorney,
James Pettit.

UNITED STATES PATENT OFFICE.

EMIL SALTZKORN AND LUDWIG NICOLAI, OF DRESDEN, GERMANY.

CARDBOARD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 535,025, dated March 5, 1895.

Application filed February 2, 1893. Serial No. 460,803. (No model.) Patented in France July 7, 1892, No. 208,492; in Belgium July 7, 1892, No. 100,406; in England August 9, 1892, No. 14,384, and in Germany August 22, 1892, No. 66,489.

To all whom it may concern:

Be it known that we, EMIL SALTZKORN and LUDWIG NICOLAI, subjects of the King of Saxony, residing at Dresden, in the Empire of Germany, have invented certain new and useful Improvements in Apparatus for Cutting Cardboard and the Like, (for which we have filed applications for Letters Patent as follows: in Great Britain, No. 14,384 on August 9, 1892; in Germany, No. 66,489, on August 22, 1892; in France, No. 208,492, on July 7, 1892, and in Belgium, No. 100,406, on July 7, 1892,) of which the following is a specification.

The object of our invention is to provide a machine or apparatus for cutting cardboard, or similar material, and this object we attain in the manner more fully set forth hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a machine for cutting cardboard, illustrating the cutting knife in its lowest position. Fig. 2 is a similar view with the cutting knife in the raised position. Fig. 3 is a plan view of the same. Fig. 4 is a transverse section on an enlarged scale on the line 4—4 Fig. 2, and Fig. 5 is an elevation illustrating a modification of the machine.

The principal object of our invention is to produce a machine capable of performing a large amount of work in a comparatively small period of time, and at the same time making a much neater and smoother cut than has been attainable on machines hitherto employed for the same purpose. This object we attain by imparting to the cutting knife, or to the table with which the knife co-acts, a movement at an angle to the direction of the cut, so as to make a "draw-cut."

Referring to the drawings A represents a bed or table provided at one end or side with a blade, *a*, having a sharp edge which will co-act with the knife to produce a "draw" cut, and at a suitable point on such table is mounted a vertical supporting block, B, provided with pivots or studs, *b*, H. To the lower stud, *b*, is pivoted a knife carrying bar, E, preferably curved and provided at its opposite end with an operating handle, *e*, the bar being normally held in the position shown in

Fig. 2 by means of a counter balance weight, *c*, secured to a rearwardly projecting portion of the bar.

The bar, E, as shown more clearly in Fig. 4, serves to support a cutting knife, M, of the same contour as the bar, and held to the latter by a series of securing bolts, S, secured in the knife and extending through slotted openings, *s*, in the bar and being provided with enlarged heads, *t*, which serve to keep the knife in its proper position and to permit the sliding movement of the knife with respect to the bar.

Extending from one of the bolts, S, to the stud, H, is a link, F, and the position of the pivot point, H, with relation to the pivot point, *b*, of the bar, E, is such that as the knife carrying bar is moved from the position shown in Fig. 2 to that shown in Fig. 1 the knife-blade, M, will be moved rearwardly a sufficient distance to produce the desired draw cut, rendering the work of the knife much less difficult and at the same time producing a clean, neat cut, in a much shorter period of time. The knife bar and knife are preferably curved as illustrated, so that the cutting edge of the knife will be forced gradually toward the cardboard and the whole length of the cutting edge will not be brought into contact with the sheet at the same time. The same result, however, may be effected by pivoting a straight carrying bar, carrying a straight knife, at a suitable distance either above or below the edge of the table, but the construction illustrated is deemed preferable.

The means described for securing the knife blade to the bar, E, may be materially altered without departing from the spirit of our invention; the arrangement of bolts herein shown and described being illustrative of an economical and simple construction.

In Fig. 5 the link, F, is connected to an arm, F', pivoted at *f* to the frame, and an extension, *e*, of the bar, E, is connected at *e'*, to the arm, F', so that the distance the cutting blade travels will be materially increased, and decreasing the amount of manual labor required to operate the machine.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a cutting machine the combination of a supporting table, a knife-carrying bar pivoted thereto at one end, a cutting knife secured in guides to the knife-carrying bar constructed to travel in said guides to and fro in the direction of the length of the bar and means for traveling said knife upon said bar in the direction of the length of the knife during the travel of the bar upon its pivot in the arc of a circle, substantially as described.

2. In a cutting machine the combination of the supporting table, a knife-carrying bar pivoted thereto at one end, a cutting knife secured in guides in the carrying bar constructed to travel in said guides to and fro in the direction of the length of the bar, and a link or bar connecting the knife to a fixed pivot point for traveling said knife upon said bar in the direction of the length of the bar during the travel of the bar upon its pivot in the arc of a circle, substantially as described.

3. The combination of the supporting table, a knife-carrying bar pivoted at one end to the frame of the machine and cutting knife adapted to such bar, securing bolts adapted to slotted openings in the carrying bar or knife for allowing a play of the knife in the direction of the length of the carrying bar and a link or bar extending from such knife

to a fixed pivot point for moving the knife upon the bar in the direction of the length of the bar during the arc-like movement of the bar and knife in its travel upon the pivot by which it is secured to the table, substantially as described.

4. The combination of the table, a block, B, provided thereon, pivot studs, *b*, H, on said block, a knife-carrying-bar pivoted to the stud, *b*, a cutting knife carried thereby, and a link as F, extending from such cutting knife to the pivot stud, H, substantially as specified.

5. The combination of the table, A, a block, B, provided thereon, pivot studs, *b*, H, on said block, a slotted knife-carrying-bar, E, pivoted to the stud, *b*, a cutting knife, M, adapted to such carrying bar, securing bolts, S, extending from the knife through slotted openings in the carrying bar, and a link, as F, extending from such knife, M, to the pivot stud, H, substantially as specified.

In testimony whereof we have hereunto set our hands in the presence of two witnesses.

EMIL SALTZKORN.
LUDWIG NICOLAI.

Witnesses:

RÜD. SCHMIDT,
HERNANDO DE SOTO.