

(No Model.)

J. GEIGER, Dec'd.

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MACHINE FOR CUTTING GROOVES IN CARD BOARD.

No. 442,878.

Patented Dec. 16, 1890.

Fig. 1.

Fig. 2.

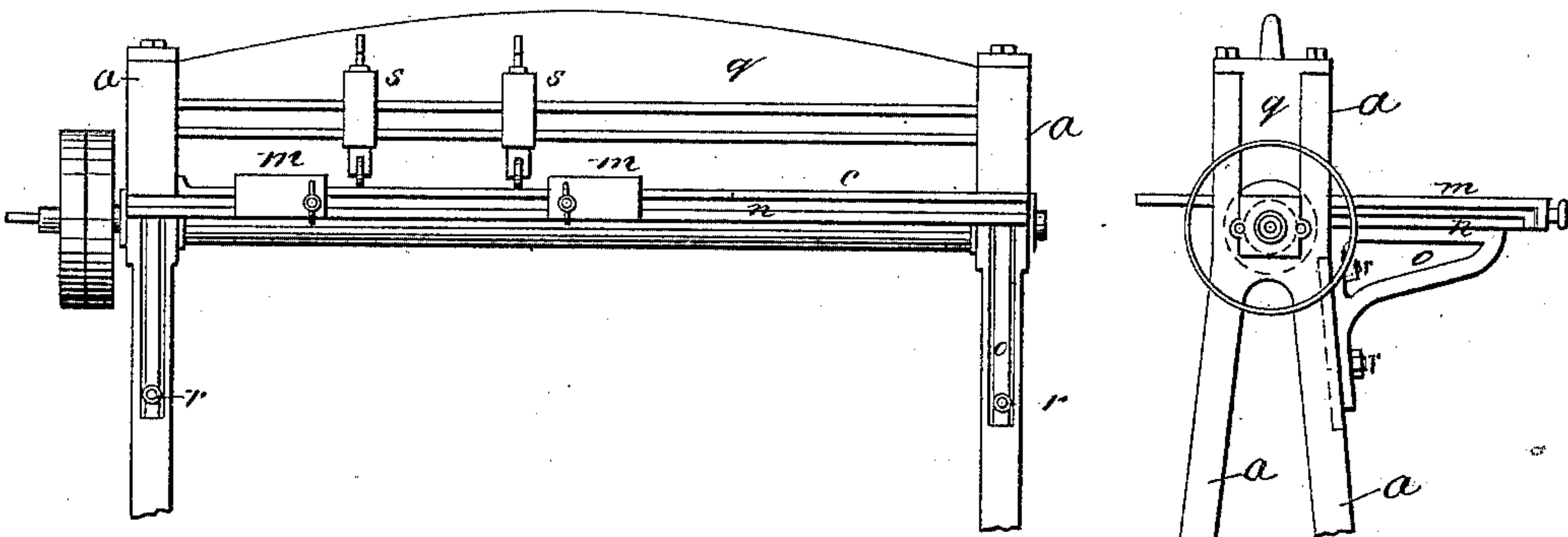


Fig. 3.

Fig. 4.

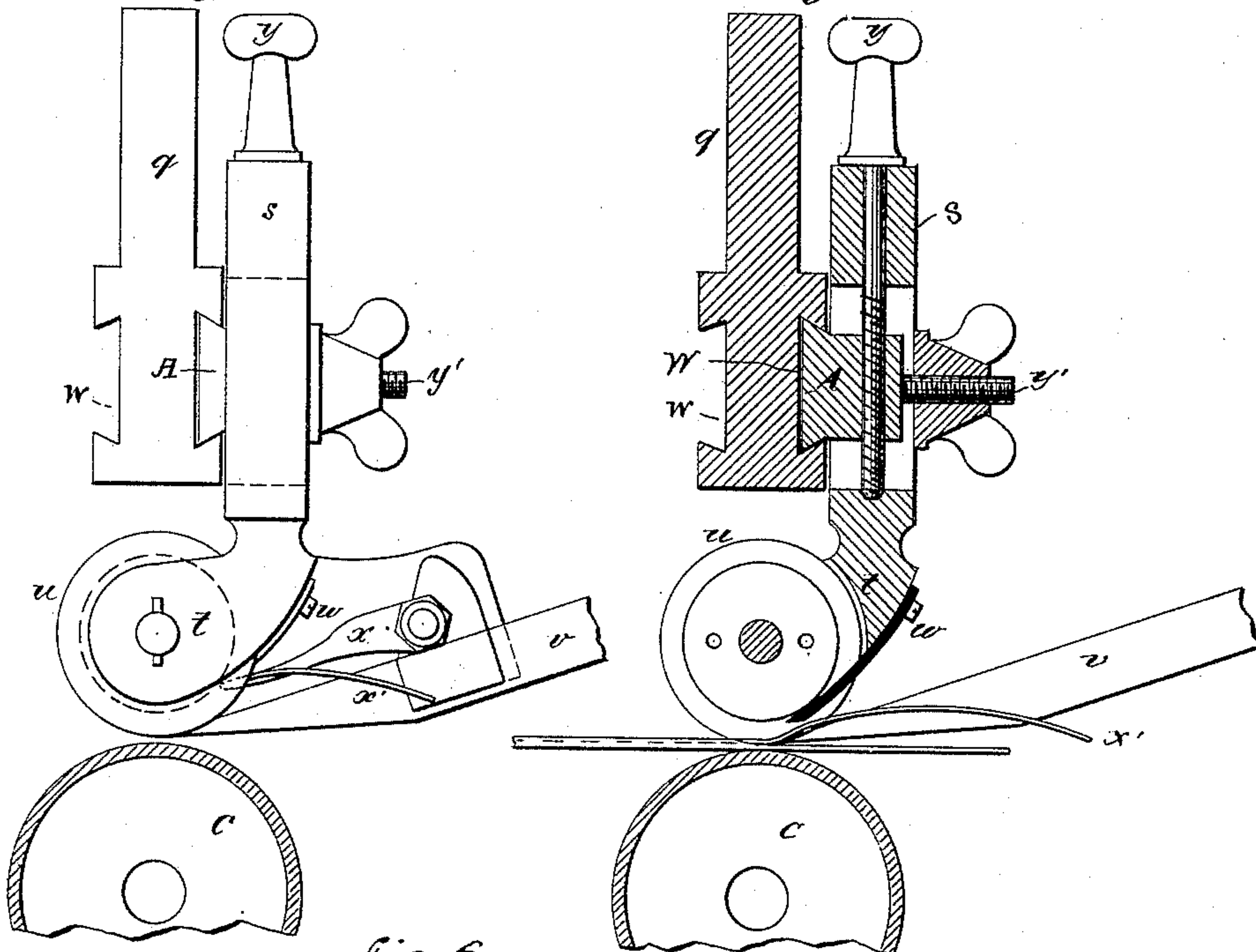
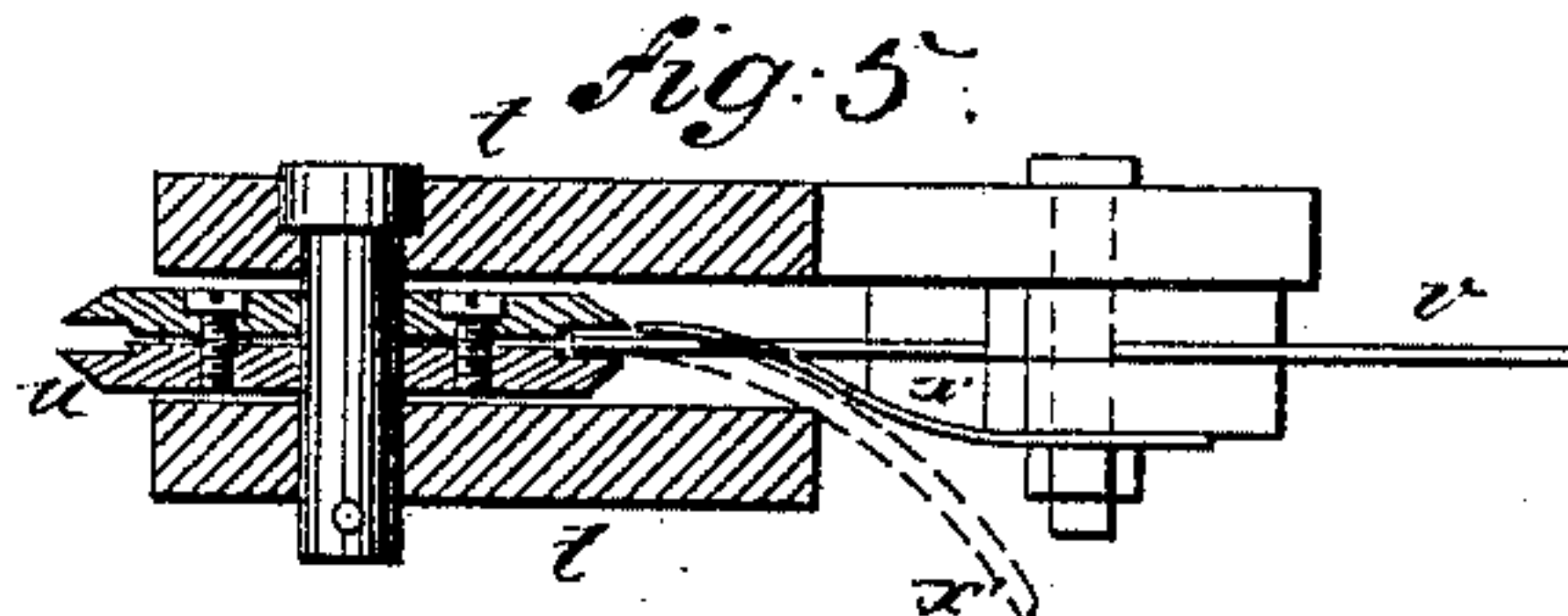
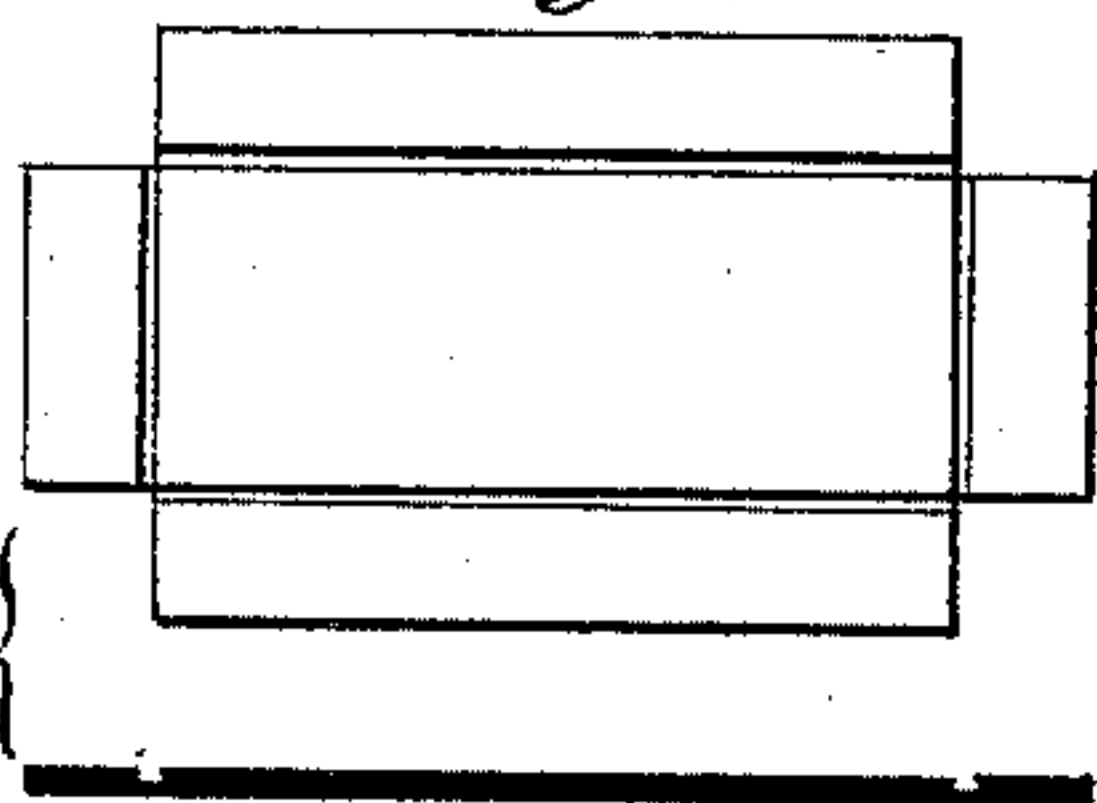


Fig. 6.

Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB GEIGER, OF STUTTGART, GERMANY; JOHN A. STRALEY ANCILLARY
ADMINISTRATOR OF SAID GEIGER, DECEASED.

MACHINE FOR CUTTING GROOVES IN CARD-BOARD.

SPECIFICATION forming part of Letters Patent No. 442,878, dated December 16, 1890.

Application filed January 26, 1887. Renewed June 5, 1889. Serial No. 313,113. (No model.) Patented in England January 8, 1887, No. 321.

To all whom it may concern:

Be it known that I, JACOB GEIGER, manufacturer of card-board boxes, residing in Stuttgart, Würtemberg, Germany, have invented certain new and useful Improvements in Cutting Grooves in Card-Board, of which the following is a specification.

This invention was patented in Great Britain January 8, 1887, No. 321.

10 The object of my invention is to provide a new and improved machine for grooving card-board for the manufacture of card-board boxes.

The invention consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of my improved machine for cutting grooves in card-board. Fig. 2 is an end view of the same. Fig. 3 is an enlarged detail side view of the groove-cutters and gouge. Fig. 4 is a cross-sectional view of the same. Fig. 5 is a horizontal sectional view of the same. Fig. 6 is a top view of a grooved card-board blank with a longitudinal section of a card-board blank.

Similar letters of reference indicate corresponding parts.

30 The cross-piece *q* is held in the upper ends of the two standards *a a*, and is provided with a longitudinal dovetailed groove *w* in each side, in which grooves the slides *A* are mounted to slide longitudinally, and on each slide *A* a vertically-adjustable holder *s* is held, which has a slot, into which the slide *A* projects, said slide being provided with a screw-shank *y'*, on which a suitable winged nut is screwed for locking the slide in place.

40 To permit of adjusting the holders vertically, a screw *y* is passed vertically through each and is screwed through an aperture in the corresponding slide *A*. The lower end of each holder *s* is provided with a fork *t*, on the shanks of which two rollers *u*, having cutting-edges, are mounted. A gouge *v* is held on the lower end of each holder *s*, and its point projects in between the cutting-edges of the two rollers *u*, said gouge serving to dig out that part of the card-board between the two cuts

made by the blades of the rollers *u*. A curved piece *W*, fastened to the holder *s*, rests upon the base of the groove between the cutting-edges of the rollers and forces out from between the rollers that part of the card-board cut out by said rollers. As shown in Fig. 3, another curved piece *x* is provided adjacent to the point of the gouge *v*, and serves to laterally guide the piece of pasteboard *x'* dug out by the gouge, as shown in Figs. 3 and 5.

The slides carrying the holders on which the cutters are held can be adjusted a greater or less distance from each other, according to the desired distance between the grooves, and the holders can be adjusted higher or lower, according to the desired depth of the groove and the thickness of the card-board.

n represents a table or support resting upon brackets *o*, which are vertically adjustable and can be locked in place by screws *r*.

m are gages on the table.

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

1. In a machine for grooving card-board, the combination, with a frame, of the holder *s*, the cutting rollers or disks *u*, journaled in the forked lower end of said holder, the gouge *v*, secured to an arm at the lower end of the holder, and the clearing-piece *w*, secured on the holder and having its end resting on the bottom of the groove formed between the two cutting-disks, substantially as shown and described.

2. In a machine for grooving card-board, the combination, with a frame, of the holder *s*, the cutting rollers or disks *u*, the clearing-piece *w*, having its free end in the groove between the cutting-edges of the disks, the guide *x* on an extension of the holders, and the gouge *v*, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JACOB GEIGER.

Witnesses:

CARL FISCHER,
F. BAKER.