

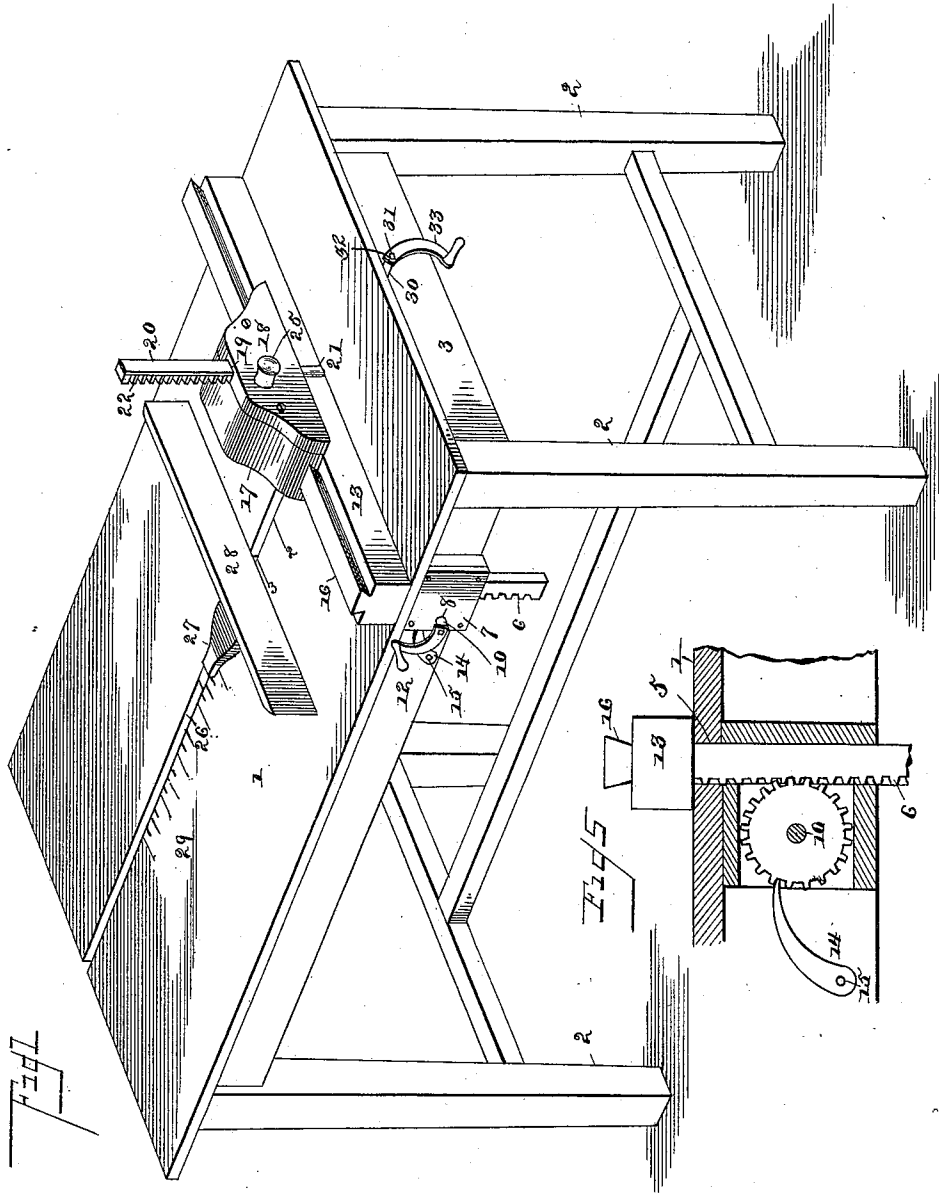
(No Model.)

2 Sheets—Sheet 1.

E. GIRTANNER.
BOOK CUTTING MACHINE.

No. 427,170.

Patented May 6, 1890.



Witnesses:

John Amirie
W. L. Lyall

Inventor

Eugene Girtanner

By his Attorneys,

C. A. Snow & Co.

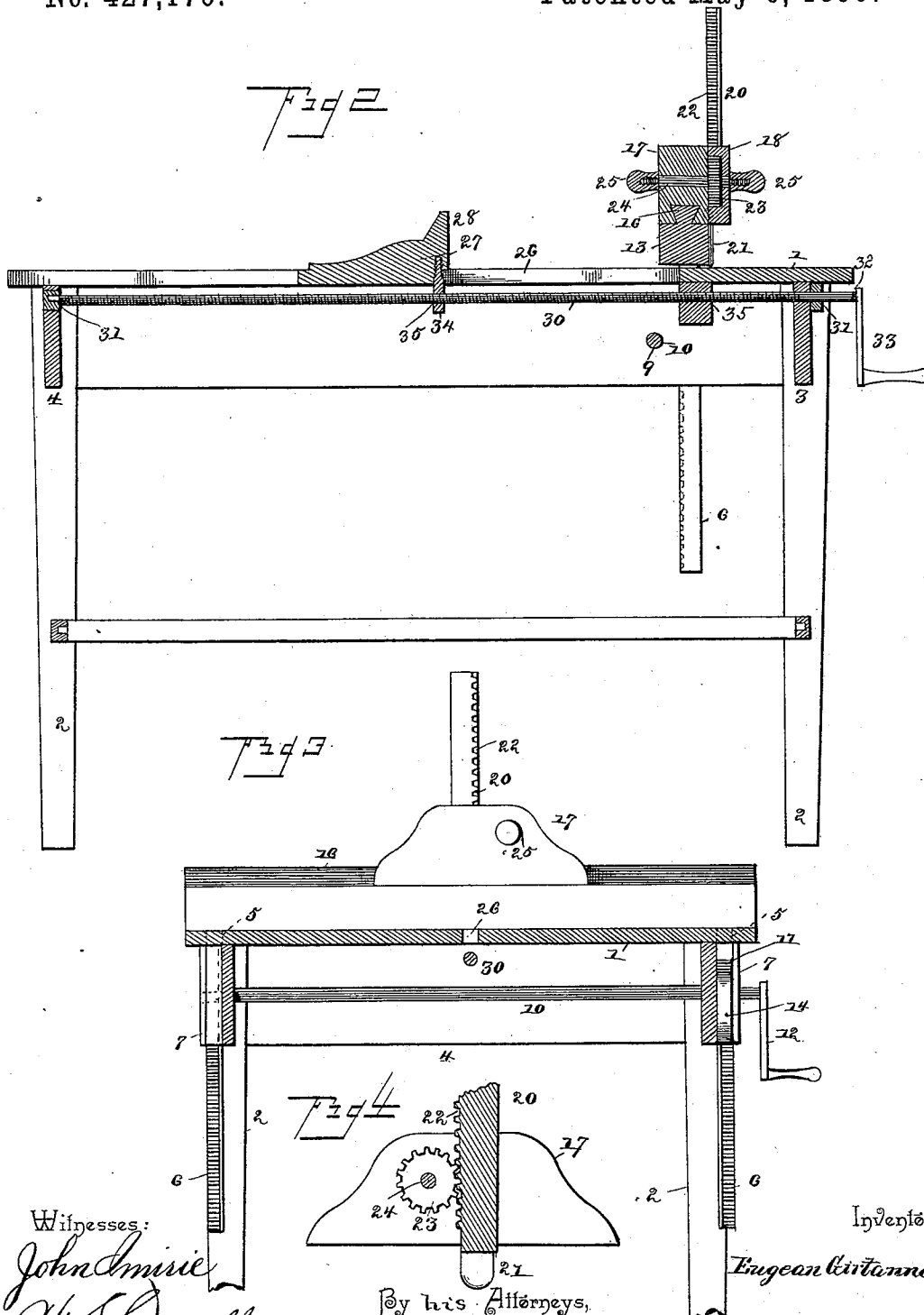
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UNITED STATES PATENT OFFICE.

EUGEAN GIRTANNER, OF COLUMBUS, NEBRASKA.

BOOK-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 427,170, dated May 6, 1890.

Application filed June 25, 1889. Serial No. 315,495. (No model.)

To all whom it may concern:

Be it known that I, EUGEAN GIRTANNER, a citizen of the United States, residing at Columbus, in the county of Platte and State of Nebraska, have invented a new and useful Book-Cutting Machine, of which the following is a specification.

This invention relates to a machine for cutting the edges of books, card-board, &c.; and among the objects in view are to provide a machine so constructed as to firmly clamp and properly gage the object to be cut or trimmed, the parts for adjusting this mechanism being within convenient grasp of the operator, and the apparatus as a whole being cheap, serviceable, and convenient.

With these general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a book-cutter constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same; Fig. 3, a transverse section. Fig. 4 is a detail view in section of the cutter-block. Fig. 5 is a detail section of the presser-bar-elevating devices.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the table top or base, which is supported by the usual legs 2, and connected by the side and end frames 3 and 4, respectively. The top 1 at opposite edges and outside of its side frame is provided with opening 5, in which are mounted for vertical reciprocation rack-bars 6, said rack-bars being guided by guide-plates 7, secured to the side frames, which are provided with bearings 8, aligning with similar bearings 9, provided in the side frames, and in said bearings is journaled a shaft 10, which is provided at its terminals and within the guide-cases 7 with gear-wheels 11. One end of the shaft is projected beyond the casing, and is squared and provided with a suitable operating-crank 12.

13 represents a transverse press-bar, the ends of which are connected with the upper ends of the rack-bars, and is thereby capable of being raised and lowered, as is readily apparent, and is maintained in an adjusted position by means of a pawl 14, pivoted, as at 15, to the side of the table and taking into the

gear 11, located at that side of the table at which is mounted the operating-crank. Upon the press-bar 13 is mounted a dovetailed or other rib 16, upon which is mounted for reciprocation a knife-block 17, provided at one side with a removable guide-plate 18, having a vertical slot 19, in which is mounted the knife-standard 20, carrying the knife 21 at its lower end, and having one of its edges serrated or toothed, as at 22, in which meshes a gear 23, mounted on a revoluble shaft 24, passing through the block 17 and the plate 18, and terminating in shaft-revolving nuts or knobs 25. A transverse slot 26 is formed in the table-top 1, and in the same is mounted a sliding guide-block 27, having a transverse header or gage 28. One of the edges of the slot 26 is provided with a scale 29.

30 represents a screw-threaded feed-shaft journaled in bearings 31, formed in the ends of the table-frame, said shaft being provided with a squared portion 32 at one end, and preferably at that end adjacent to the press-operating crank, which squared portion is likewise provided with an operating-crank 33, whereby said shaft 30 is rotated, and through the medium of a boss 34, depending from the bottom of the block 27 and perforated, as at 35, upon the shaft, said gage 28 is moved back and forth upon the table in the slot 26 over the scale and to and from the press.

The operation of my invention will be readily apparent from the foregoing description, and may be briefly stated as follows: To trim a card-board the gage or header 28 is first set a desired number of inches from the press, the board having been previously mounted on the table in front of the gage and the press-bar elevated above the table, whereby said card-board is fed under the press-board. The crank of the press-bar is now reversed and the board clamped upon the table top or base. It now simply remains to reciprocate the cutter-block upon its ways, and the knife carried thereby, having previously been set, will neatly trim the board. In a like manner leaves of books and other paper in sheet form may be uniformly cut.

Having described my invention and its operation, what I claim is—

1. In a paper-cutter, the frame provided at

opposite sides with guides, vertical rack-bars mounted in the guides and projected through the table, and a transverse press-bar connecting the rack-bar, in combination with a transverse shaft mounted in the frame of the table and provided with gears meshing with the rack-bars, a crank mounted on the shaft, and a pawl arranged at one side thereof and adapted to mesh with one of the gears, substantially as specified.

2. In a paper-cutter, a press-bar provided with a guiding-rib, in combination with a cutter-block mounted for reciprocation on the rib, and an adjustable knife mounted in the cutter-block, substantially as specified.

3. In a paper-cutter, a frame provided at opposite sides with perforated guide-plates, a transverse shaft journaled in the frame and in the guide-plate and provided within the plates with gears and outside of the plates with a crank, and a pawl operating in one of the gears, in combination with opposite vertical rack-bars mounted in the guide-plates and projecting through openings in the table-top, a transverse press-bar connecting the guide-plates at their upper ends and provided with a dovetailed guiding-rib, a knife-block having a corresponding groove mounted on the ribs, a knife-plate having a vertical guide secured to the block, an adjustable knife-carrying rack-bar mounted in the guide, and a transverse shaft terminating in operating-

knobs mounted in the block and plate and provided with a pinion meshing with the rack-bar that carries the knife, substantially as specified.

4. In a paper-cutter, the vertically-adjustable press-bar, combined with the cutter-block sliding on the press-bar and carrying a knife, as set forth.

5. In a paper-cutter, the vertically-adjustable press-bar, combined with the cutter-block sliding longitudinally along the press-bar, an adjustable knife mounted in the cutter-block, and devices for raising and lowering the knife to adjust it vertically in the block, as set forth.

6. In a paper-cutter, the press-bar provided with a reciprocating cutter-block carrying a knife, as set forth.

7. In a paper-cutter, the reciprocating cutter-block having a vertically-adjustable knife mounted thereon, the latter carrying a rack-bar, and a transverse shaft terminating in operating-knobs and provided with a pinion meshing with the rack-bar carried by the knife, as set forth.

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

EUGEN GIRTANNER.

Witnesses:

CHAS. SEGELKE,

H. F. J. HOCKENBERGER.