

No. 676,228.

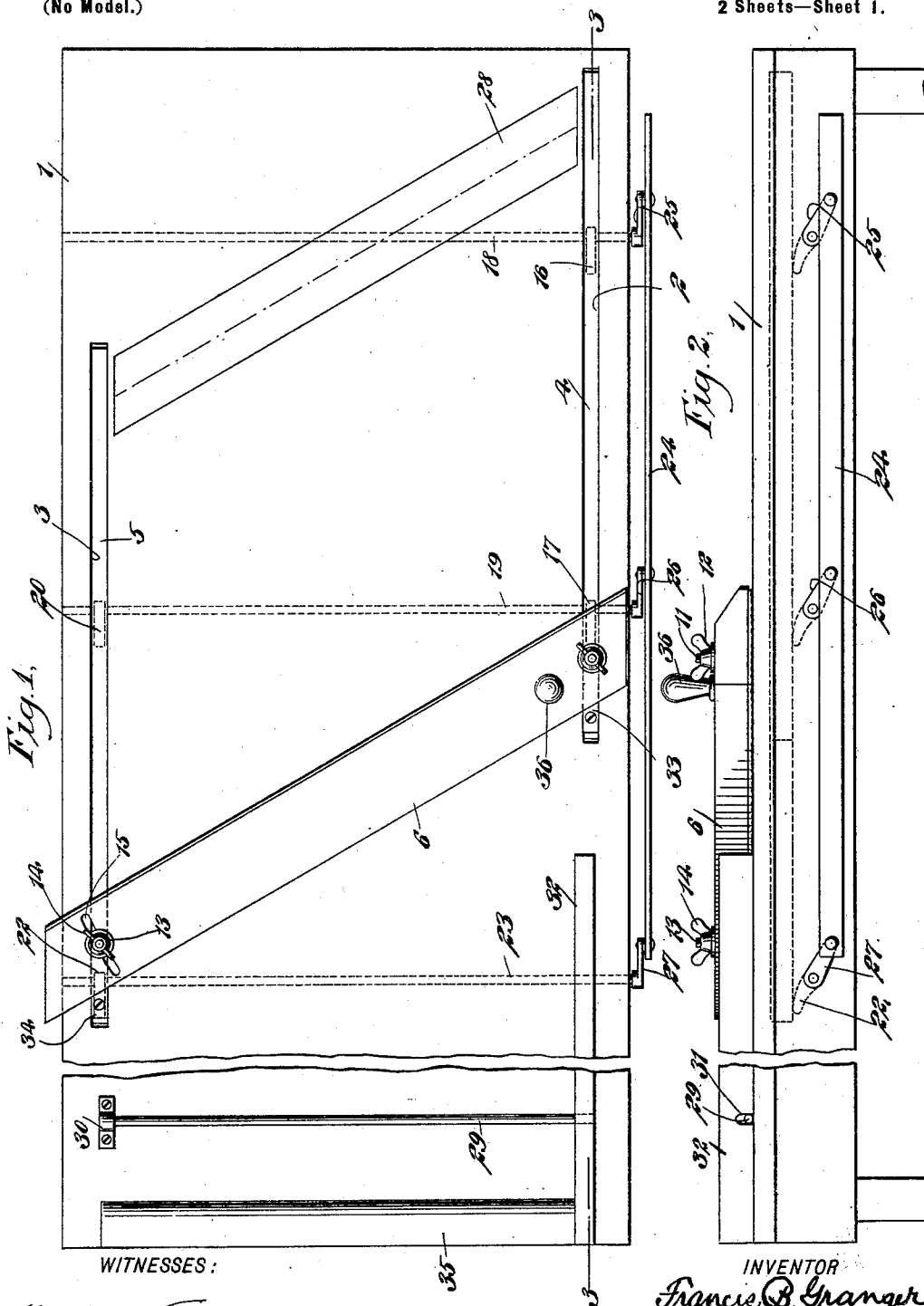
Patented June 11, 1901.

F. B. GRANGER.
BIAS CUTTING TABLE.

(Application filed Nov. 10, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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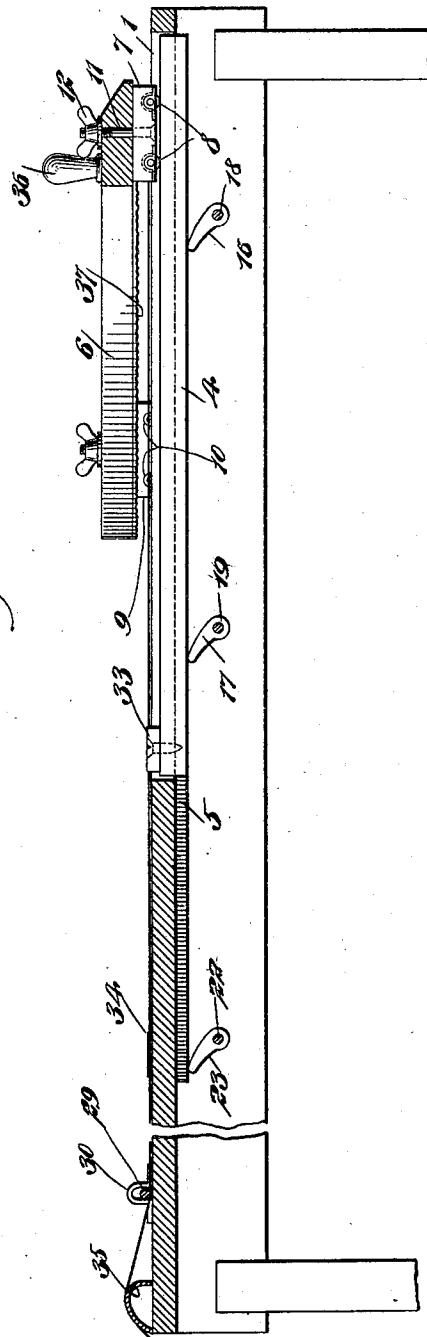
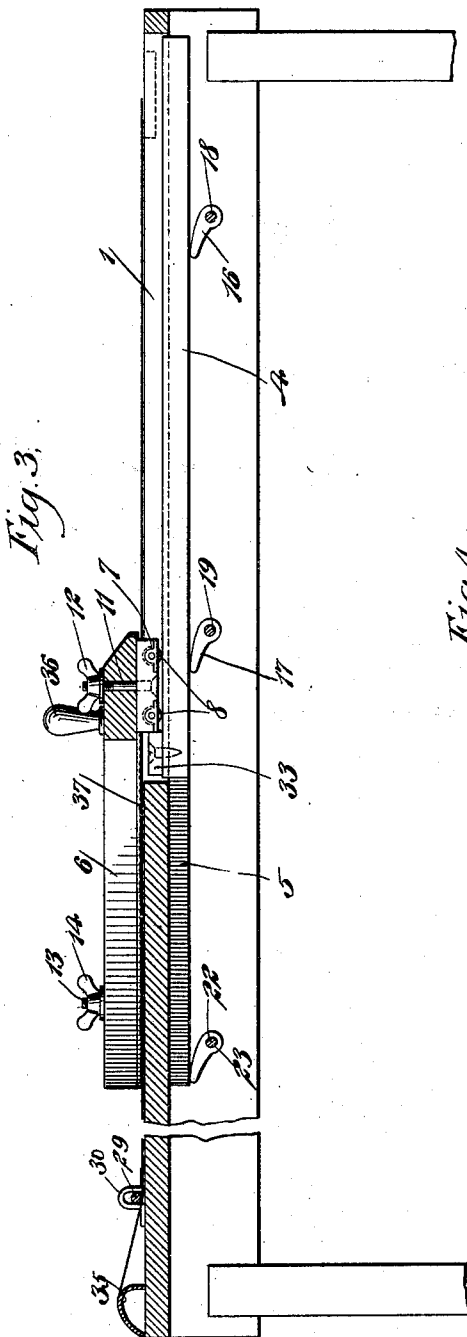
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

FRANCIS B. GRANGER, OF NEW YORK, N. Y., ASSIGNOR TO R. ROSS
APPLETON, OF SAME PLACE.

BIAS-CUTTING TABLE.

SPECIFICATION forming part of Letters Patent No. 676,228, dated June 11, 1901.

Application filed November 10, 1899. Serial No. 736,474. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. GRANGER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Bias-Cutting Table, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines or tables employed in cutting cloth on the bias; and the object is to provide a machine for this purpose that shall be simple in construction and by means of which bias strips of desired widths may be rapidly placed in position for cutting.

I will describe a bias-cutting table embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a cutting-table embodying my invention. Fig. 2 is an edge view thereof. Fig. 3 is a section on the line 3 3 of Fig. 1; and Fig. 4 is a section similar to that of Fig. 3, but showing certain parts in a different position.

Referring to the drawings, 1 designates a table-top, in the opposite sides of which longitudinally-disposed slots 2 3 are formed, and movable vertically in these slots are rails 4 5, upon which a cutting-guide 6 is movable. This cutting-guide is made in the form of a ruler and is extended diagonally or in a bias direction over the table. At one end the guide is connected to a block 7, having rollers 8 engaging with the upper side of the rail 4, and at the opposite side the guide is connected to a block 9, having rollers 10 engaging with the upper side of the rail 5. The guide is connected to the block 7 by means of a bolt 11 and a thumb-nut 12, and it is connected to the block 9 by means of a bolt 13 and a thumb-nut 14. At this side the bolt extends through a slot 15, transversely formed in the guide. Therefore by releasing the thumb-nut 14 and also the thumb-nut 12 the guide may be swung on the bolt 11 and relatively to the bolt 13 to adjust the angle of the guide transversely of the table.

As a means for raising and lowering the guide for a purpose to be hereinafter described I employ fingers 16 and 17, secured, respectively, to rock-shafts 18 and 19, extended transversely of the table and having bearings in the sides of the table. The fingers 16 and 17 engage with the under side of the rail 4, while a finger 20 on the shaft 19 and a finger 22 on a shaft 23 engage with the under side of the rail 5. The several shafts 18, 19, and 23 are respectively connected to a shifting rod 24 by means of crank-levers 25, 26, and 27.

At the outlet end of the table a cutting-bed 28, of wood or other suitable material, is seated in the table, and at the opposite end is a roller 29, designed to press by gravity upon the cloth fed through the machine for the purpose of straightening out any irregularities that may be in the cloth. This roller 29 is movable vertically in a bearing 30 at one side of the table and is movable vertically in an opening 31, formed through a guide-strip 32, arranged near the edge of the table.

Stop-blocks 33 34 are connected, respectively, to the rails 4 and 5. These blocks are designed to limit the backward movement of the guide 6 and are adjustably arranged on the rails, so that the cutting-guide may be adjusted for different widths of bias strips to be cut.

In operation the cloth *x* to be cut into bias strips is passed over a raised rib 35 at the feed end of the table and thence under the pressing-roller 29, and then the end is carried underneath the guide 6, it being understood that one edge of the cloth will bear against the guide-strip 32, so as to be fed in a straight line over the table-top. Now by taking hold of the handle 36 on one end of the guide 6 and moving the guide toward the outlet end of the table the cloth will be moved along therewith. Then when the forward edge of the guide reaches the proper position on the cutting-bed 28 a knife is to be drawn along the forward edge of said guide 6 to sever the cloth. To facilitate the movement of the cloth with the guide 6, I preferably attach a soft-rubber plate 37 to the under side of the guide, and this rubber plate may be corrugated or roughened, if desired. After cutting through the material, as above

described, the shifting rod 24 is to be moved longitudinally, causing the shafts 18, 19, and 23 to rock, and consequently, through the medium of the lifting-fingers, raise the rails 4 and 5, moving the guides 6 free of the cloth. When the rails are held in this elevated position, the guide may be moved back again to its starting position, then lowered, and the cloth fed forward, as before described, and the bias strips severed from the body portion of the cloth.

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

1. In a cutting-table, a knife-guide movable lengthwise of the table, rollers supporting said guide and means for moving the guide vertically with relation to the table, substantially as specified.
2. In a cutting-table, a knife-guide arranged diagonally over the table and adapted to move lengthwise of the table, roller-bearings for the guide and means for moving said guide vertically with relation to the table, substantially as specified.
3. In a cutting-table, rails movable vertically at opposite sides of the table, means for causing the vertical movements of said rails, a cutting-guide extended over the table, and rollers carried by said guide and engaging with the rails, substantially as specified.
4. In a cutting-table, a table-top having

longitudinal slots formed within its opposite edges, rails movable vertically in said slots, a cutting-guide movable on said rails, rock-shafts, devices carried by the rock-shafts for engaging with the rails, and means for simultaneously operating the rock-shafts to elevate or lower the rails, substantially as specified.

5. In a cutting-table, a table-top, opposite rails movable vertically with relation to the table-top, a cutting-guide extended at an angle or bias over the table-top, rollers supporting said guide and engaging with the rails, and means for adjusting said guide as to its angle across the table, substantially as specified.

6. A cutting-table, comprising a table-top, rails movable vertically with relation to the table-top, a cutting-guide movable on the rails and lengthwise thereof, rock-shafts having bearings in the table, fingers extended from said rock-shafts and engaging with the under sides of the rails, crank-arms on said rock-shafts, and a shifting rod connecting with the crank-arms, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS B. GRANGER.

Witnesses:

C. R. FERGUSON,
EVERARD BOLTON MARSHALL.