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Patented Jan. 7, 1902.

F. J. ALBRECHT.
EMBOSSING MACHINE.

(Application filed Oct. 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.

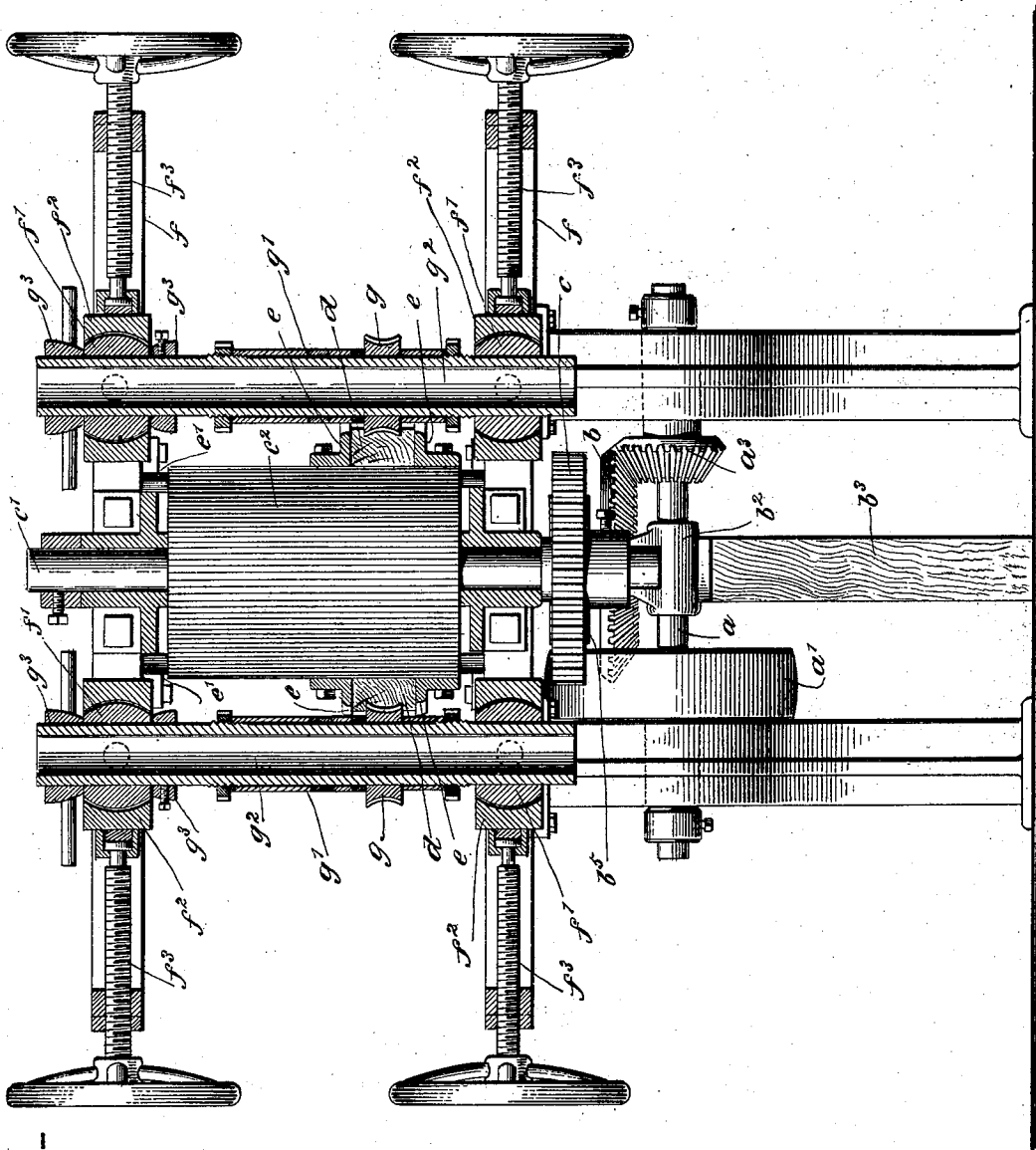


Fig. 1

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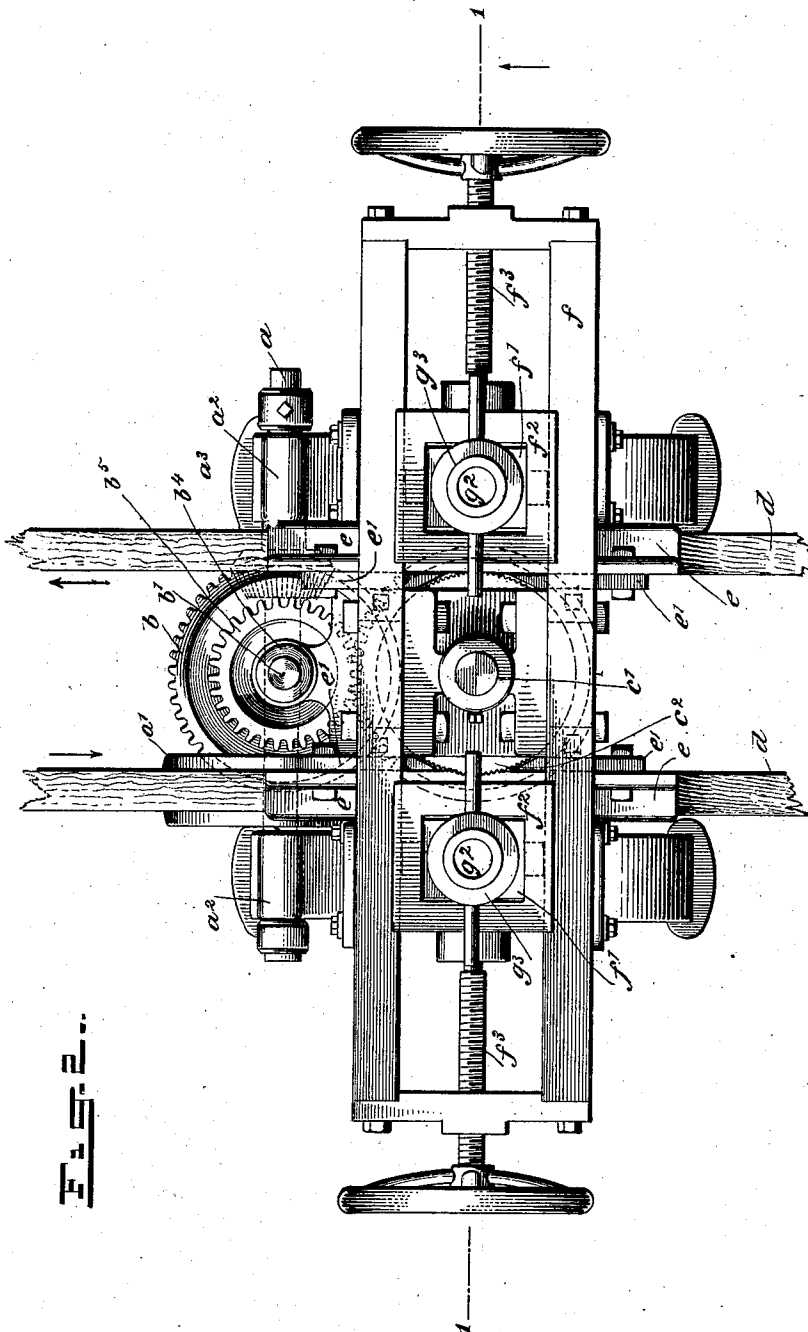
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

FREDERICK JOHN ALBRECHT, OF NEW YORK, N. Y.

EMBOSSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 690,816, dated January 7, 1902.

Application filed October 11, 1901. Serial No. 78,319. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK JOHN ALBRECHT, 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 Embossing-Machine, of which the following is a full, clear, and exact description.

This invention relates to a machine for embossing wood; and the object is to provide an apparatus capable of doing the work more effectively than those ordinarily employed. To this end, I have invented a peculiarly-constructed machine with a die at each side of a vertical feed-roller, so that both dies can be worked simultaneously against strips of material driven by the feed-roller in opposite directions.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

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 both the views.

Figure 1 is a vertical section of the invention on the line 1 1 of Fig. 2, and Fig. 2 is a plan view thereof.

a represents the drive or primary-movement shaft, which carries a pulley a' , adapted to be connected with a motor or other source from which the apparatus is driven. This shaft a is mounted in bearings a^2 , held by the framework of the machine. Fastened to the shaft a is a miter-gear a^3 , and this is in mesh with a gear b on a shaft b' , mounted in a step-bearing b^2 . The step-bearing b^2 is carried loosely on the shaft a and may, if desired, be mounted on a pedestal b^3 . (See Fig. 1.) The upper end of the shaft b' is mounted to turn in a bracket b^4 , carried by the framing. (See Fig. 2.) Fastened to the shaft b' is a spur-gear b^5 , and this is in mesh with a spur-gear c , fastened to the shaft c' , whereon is carried the feed-roller c^2 . The shaft c' extends vertically and is mounted in suitable bearings held by the frame of the apparatus, as shown. By this gearing the feed-roller is driven around the axis of the shaft c' . The work (indicated at d in the drawings) is driven by the feed-roller between two pairs of guides e , these guides being arranged horizontally and

one pair at each side of the feed-roller, as shown.

e' represents brackets, which are suitably fastened to the frame and which rigidly sustain the guides.

Fastened on and forming parts of the framing of the machine are two horizontal guides f of rectangular form. (See Fig. 2.) These guides are arranged one above the other, and the shaft c' projects centrally through them. g indicates the dies, which are held by suitable fastening devices g' on the burner-tubes g^2 . These tubes extend vertically parallel with the shaft c' and are adapted to carry the heating apparatus for the dies. This heating apparatus may be of any sort desired and has not been illustrated in the drawings. The tubes g^2 are mounted loosely in boxes f' and are held against longitudinal movement by means of collars g^3 , fastened on the upper ends of the tubes. The boxes f' are rockably mounted in slides f^3 , which are carried in the guides f . These slides f^3 are connected with hand-screws f^4 , and by these means the tubes g^2 , with the guides attached, may be advanced toward or retracted from the work. Therefore it will be seen that the inclination of the tubes g^2 may be regulated at will without in any way disturbing the operation of the machine. The tubes are immovable longitudinally in the upper boxes f' , owing to the collars g^3 ; but there may be a relative longitudinal movement between the tubes g^2 and the lower boxes f' . This will permit one set of the boxes f' to be moved in or out with respect to the other set, whereby to adjust the inclination of the tubes g^2 without in any way hampering the operation of the machine. This adjustment is decidedly advantageous, as will be apparent to persons skilled in the art.

In using the apparatus the work is fed into the machine from opposite sides and travels in opposite directions, as indicated by the arrows in Fig. 2. The feed-roller c^2 , driving the work against the dies, and these dies being heated, will impress the design on the work in the usual manner.

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

1. In an embossing-machine, the combination with a frame, comprising two horizon-

tally-disposed guides arranged one above the other, of a feed-roller mounted intermediately of the guides, a drive-shaft at one side of the feed-roller, gearing for connecting said shaft with the feed-roller, tubes arranged one at each side of the feed-roller and adapted to be heated and to carry the embossing-tools, boxes connected to the ends of the tubes, slides mounted in the guides and pivotally carrying the boxes to move toward and from the feed-roller, and means for moving the slides.

2. In an embossing-machine, the combination of a frame, comprising two horizontal guides arranged one above the other, a feed-roller mounted intermediately of the guides and extending between them, the axis of the feed-roller passing through the guides, gearing for turning the feed-roller, slides mounted in the guides at each side of the feed-roller, means for moving the slides toward and from the feed-roller, boxes pivotally mounted in the slides, and tool-carrying tubes fastened

in the boxes and extending vertically in parallelism with the feed-roller.

3. In an embossing-machine, the combination of a frame, comprising two horizontally-disposed guides arranged one above the other, a feed-roller situated intermediate the ends of the guides, the axis of the feed-roller extending through the guides from one to the other, a drive-shaft located at one side of the guides in parallelism therewith, gearing connecting the drive-shaft with the feed-roller, slides mounted in the guides, boxes pivotally carried in the slides, and tool-holding devices supported by the boxes, said devices lying at opposite sides of the feed-roller in parallelism therewith.

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

FREDERICK JOHN ALBRECHT.

Witnesses:

I. B. OWENS,

JNO. M. RITTER.