(No Model.)

C. O. BAXTER.

MACHINE FOR MAKING PICTURE FRAME MOLDINGS.

No. 329,877. Patented Nov. 10, 1885.

Fig. 1.

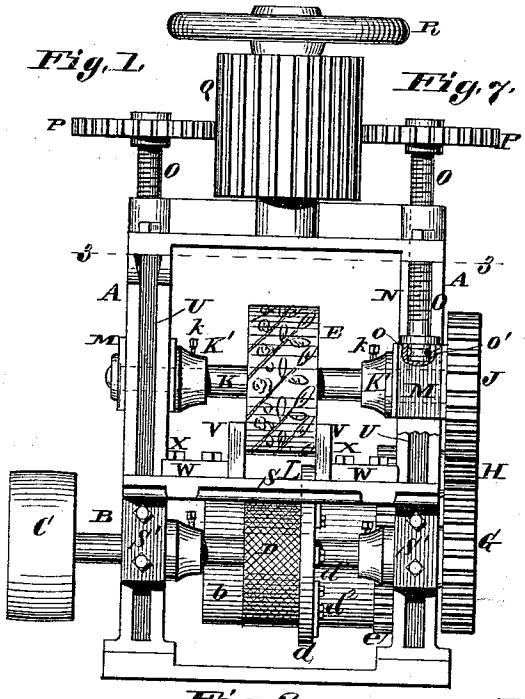


Fig. 7.

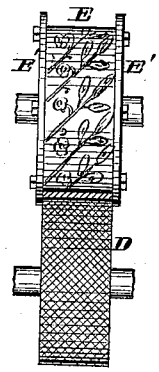


Fig. 2.

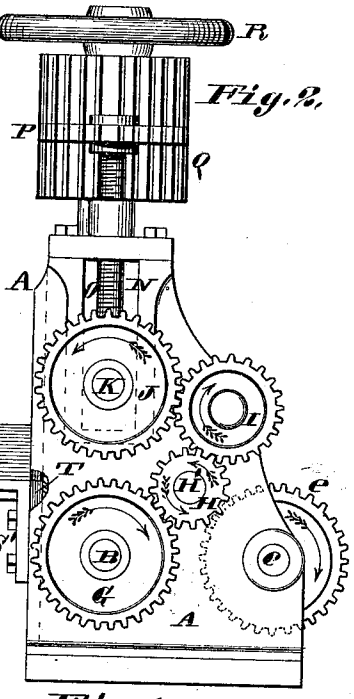


Fig. 3.

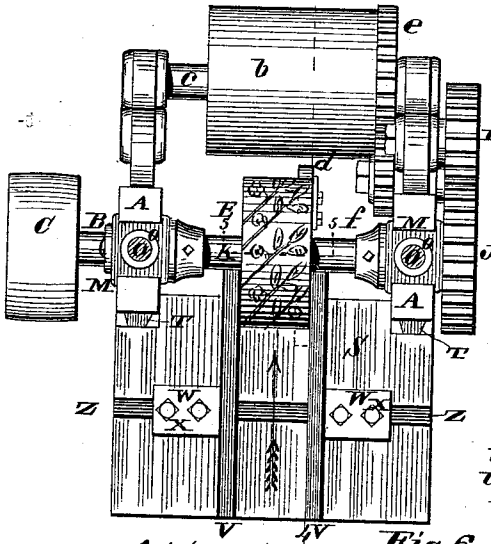


Fig. 5.

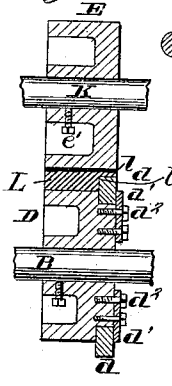


Fig. 4.

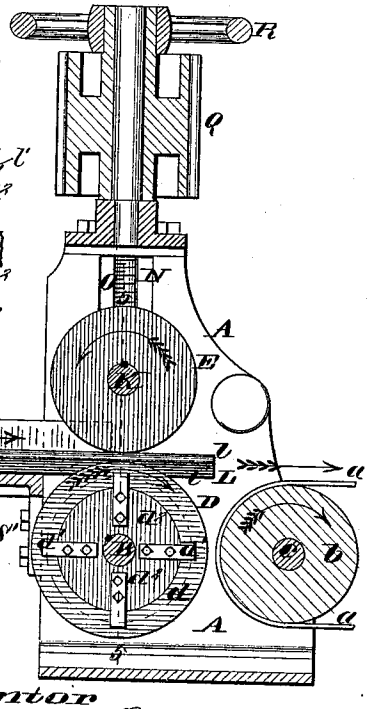
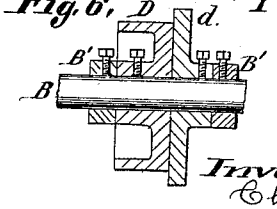


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES O. BAXTER, OF ST. LOUIS, MISSOURI.

MACHINE FOR MAKING PICTURE-FRAME MOLDINGS.

SPECIFICATION forming part of Letters Patent No. 329,877, dated November 10, 1885.

Application filed June 20, 1885. Serial No. 169,295. (No model.)

To all whom it may concern:

Be it known that I, CHARLES O. BAXTER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Machines for Making Picture-Frame Moldings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This is a machine for impressing a design upon plastic material, which is passed through the machine in strips or plates.

Figure 1 is an end elevation of the machine as used for the application of a molded facing to strips of wood which form the sides of the picture-frame or parts of the same. Parts are broken out in this figure to show other parts beneath. Fig. 2 is a side elevation of the machine. Fig. 3 is a longitudinal section at 3 3, Fig. 1. Fig. 4 is a vertical longitudinal section at 4 4, Fig. 3. Fig. 5 is a detail transverse section at 5 5, Fig. 3. Fig. 6 is a sectional view of the lower roller, showing a modification in construction. Fig. 7 is a detail elevation of the two rollers as used in the manufacture of strips of embossed material without the wooden backing-strips.

A is the frame of the machine. B is the drive-shaft, carrying a pulley, C, to receive a drive-belt. (Not shown.) D is a wheel or roller upon the shaft B, said roller being vertically beneath the embossing wheel or roller E. The shaft B carries a spur-wheel, G, which engages a spur-wheel, H, that engages an adjustable transmitting-wheel, I, that in turn engages a spur-wheel, J, upon the shaft K of the embossing-roller. The arrangement is such that the surface-speed of the two rollers D E is equal, so that they both act as feed-rollers to the strip L passing between them. To increase the hold of the roller D upon the strip, I roughen the circumferen e of the roller.

The shaft K has bearing in boxes M, which work in vertical guide-slots N of the frame, so as to enable the vertical adjustment of the embossing-roller E. The boxes M are supported on screws O, tapped in the top of frame A. The lower ends of the screws O turn in sockets *o* of the boxes, and are held therein by pins or keys *o'*, that occupy circumferential grooves of the screw ends. (See Fig. 1.) The upper ends of the screws O carry spur-wheels P, which engage a single spur-wheel, Q, that is turned by a hand-wheel, R, to cause the simultaneous elevation and depression of the two boxes M. The wheel Q has length sufficient to allow the required vertical movement of the wheels P without disengagement.

S is the table upon which the material is fed to the embossing-roll, the table being supported on brackets or lugs S', through which pass set-screws which are tapped into a block or bar, T, upon each side fitting in a dovetail groove, U, of the frame. The construction is such that when the screws are made tight the blocks are fixed in the grooves U and the table held in place.

V V are guides whose inner sides are in line with the ends of the embossing-roller, and which lap past said ends some distance. These guides prevent to a great degree the side spreading of the material as it passes beneath the embossing-roller. The guides V are made transversely-adjustable upon the table R by means similar to those described for th tachment of the table to the frame A.

W are brackets or lugs attached to the outer sides of the guides, and X are screws passing through the brackets and tapped in blocks Y, fitting in a transverse dovetail-groove, Z, of the table. When the set-screws X are made tight, the guides are held firmly in place.

The machine as described, with the rollers D and E, as shown, is used for putting an embossed face of plastic material, *l*, upon a wooden strip, L, said strip having a rabbet-groove at *l'* to receive the picture and backing when the strips have been formed into a frame. It will be seen that the roller D carries a wheel or collar, *d*, which occupies this rabbet-groove. This collar is arranged to turn freely on the roller, so as to avoid friction of the collar against the strip, for it will be seen that if the collar were made fast to the roller, its circumference being greater, it would have greater surface-speed, but being loose it moves with equal surface-speed, and being lubricated in its bearing upon the roller D it turns freely thereon.

d' are plates holding the collars *d* in place upon the roller, the plates being held by screws d^2.

a is an off-bearing belt upon the pulley *b*,

this pulley being upon a shaft, *c*, which carries a spur-wheel, *e*, which engages with a spur-wheel, *f*, upon the shaft H′ of the spur-wheel H.

The shaft K should be made removable from the machine, and the embossing-roller removable from the shaft, to allow the change of rollers in changing the designs as to either configuration or size. For this purpose the roller E and collars K′ may be secured to the shaft by set-screws *c′* and *k*. (See Figs. 5 and 1, respectively.) After the roller and collars have been made loose on the shaft, it may be drawn endwise from it bearings. In like manner the appendages of the shaft B may be made removable, so that the shaft may be drawn from its bearings and the roller D changed.

I have described the collar or wheel *d* as turning or having bearing in a groove of the roller D, but it may instead have direct bearing upon the shaft B, as seen in Fig. 6, turning freely on said shaft as it is carried around by the strip L; or the wheel *d* may be made fast upon the shaft B by means of the set-screw in its hub, and the wheel D be left free to turn upon the shaft. Whichever of these wheels is free to turn upon the shaft should be kept in place by a collar, B′.

It is proper that the wheel or roller (D or *d*) which is fast upon shaft B shall have a surface-speed equal to the embossing roller or wheel E.

I claim—

1. A roller composed of two parts of different diameters having independent rotary movement.

2. The combination of a bearing-roller made in two parts of different diameters, having independent rotary movement, and an embossing-roller acting in conjunction with the same, for the purpose set forth.

3. The combination, with a vertically-adjustable embossing-roller, of a table, S, made vertically adjustable, substantially as set forth.

4. The combination, with the two wheels P upon the journal-box and lifting-screws O, of the elongated gear-wheel Q, for the purpose set forth.

5. The combination of embossing wheel or roller E, a table, S, and guides adjustable upon the table and lapping over the ends of the embossing-wheel, for the purpose set forth.

6. The guides V, having lugs, and screws X, turning in the lugs and screwing in blocks Y, moving in a transverse dovetail slot in the top of table S.

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Witnesses:
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BENJN. A. KNIGHT.