(No Model.) 3 Sheets—Sheet 1.

C. J. DORTICUS.

MACHINE FOR EMBOSSING PHOTOGRAPHS.

No. 537,442. Patented Apr. 16, 1895.

FIG. 1

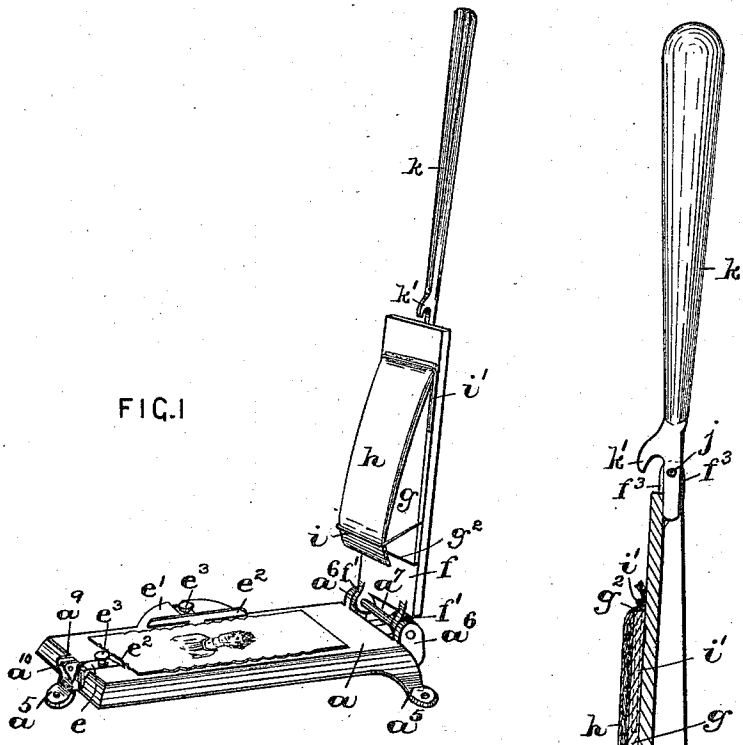


FIG. 3

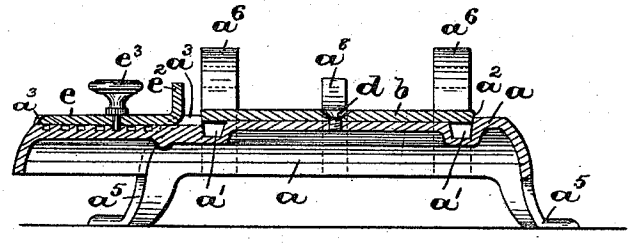
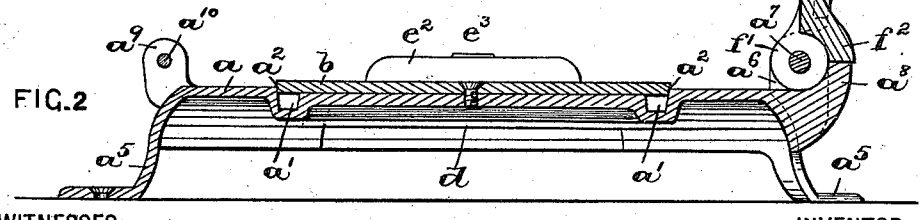


FIG. 2



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(No Model.) 3 Sheets—Sheet 2.

C. J. DORTICUS.

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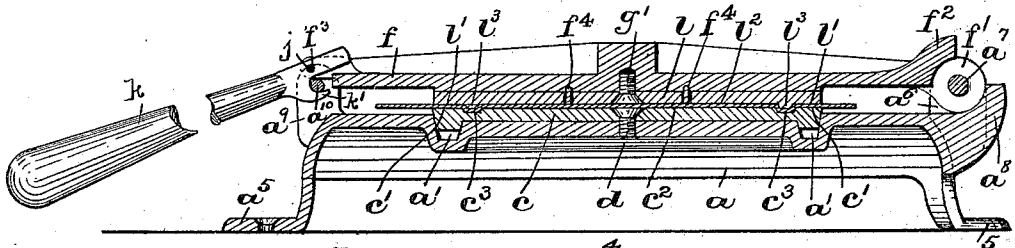

FIG. 4

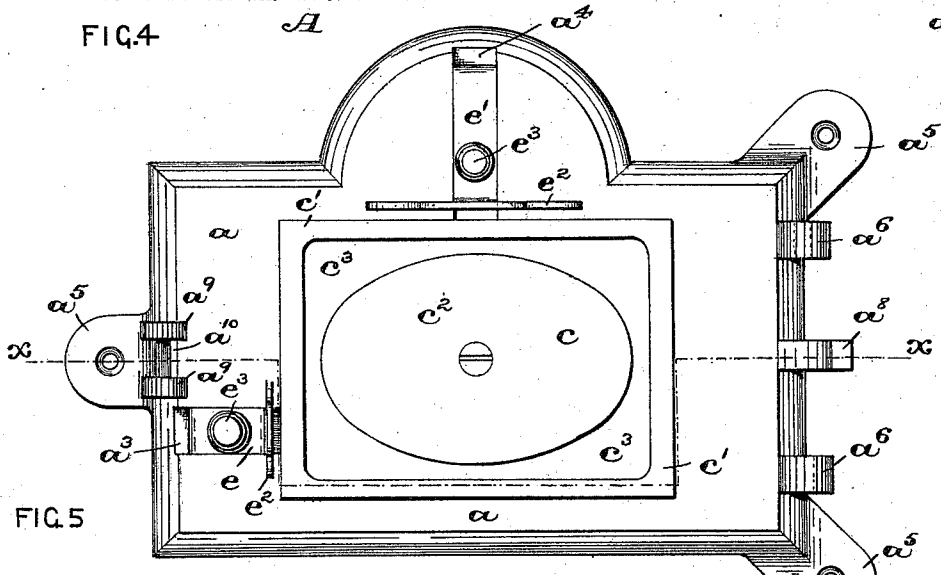

FIG. 5

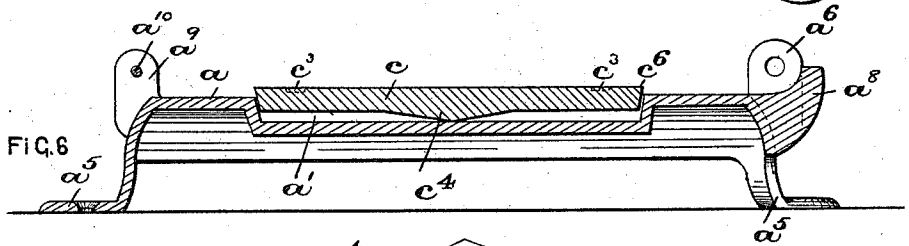

FIG. 6

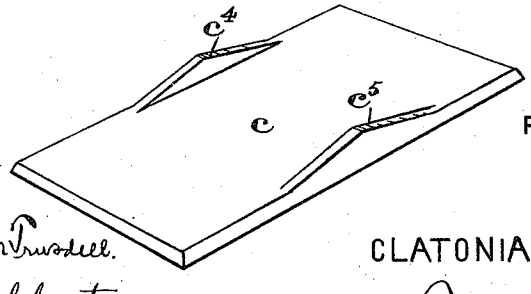

FIG. 7

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(No Model.) 3 Sheets—Sheet 3.

C. J. DORTICUS.

MACHINE FOR EMBOSSING PHOTOGRAPHS.

No. 537,442. Patented Apr. 16, 1895.

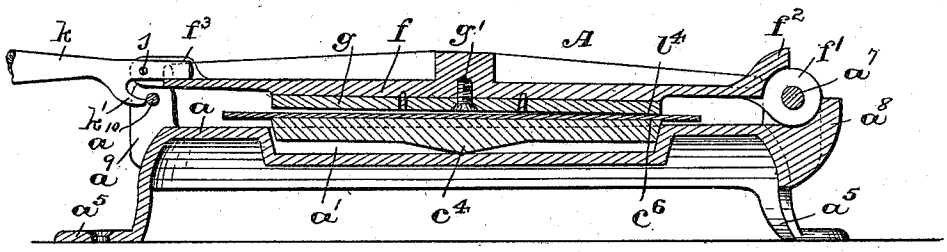

FIG. 8

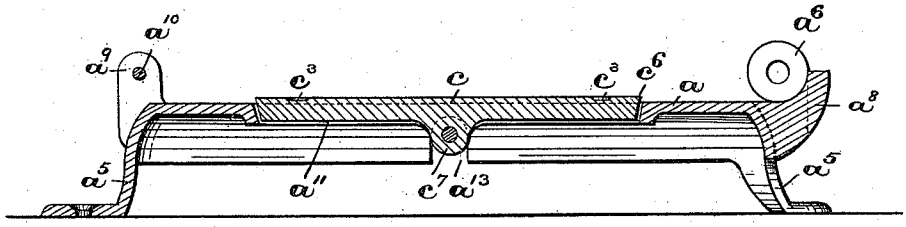

FIG. 9

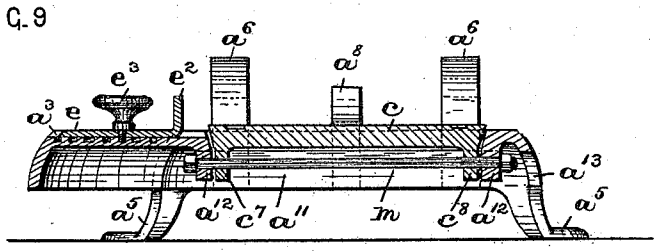

FIG. 10

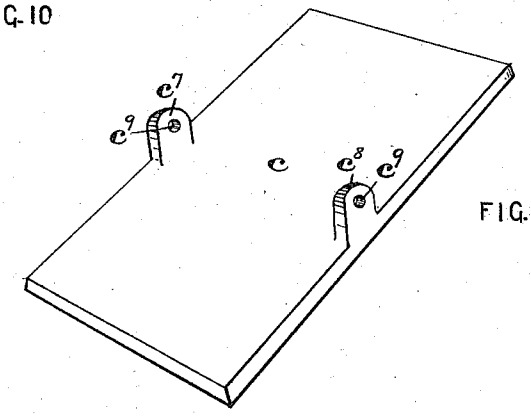

FIG. 11

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UNITED STATES PATENT OFFICE.

CLATONIA JOAQUIN DORTICUS, OF NEWTON, NEW JERSEY, ASSIGNOR TO ANDREW B. BRICKNER AND EDWARD L. DECKER, OF SAME PLACE.

MACHINE FOR EMBOSSING PHOTOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 537,442, dated April 16, 1895.

Application filed July 12, 1894. Serial No. 517,273. (No model.)

To all whom it may concern:

Be it known that I, CLATONIA JOAQUIN DORTICUS, a citizen of the United States, residing at Newton, in the county of Sussex and State of New Jersey, have invented certain new and useful Improvements in Machines for Embossing Photographs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in machines for mounting and embossing photographic prints, and has especial reference to a machine which may be used either for mounting photographic prints, or, by the use of proper dies, may be used for the embossing of photographs, or the machine may be used for both purposes, as may be desired.

The object of the invention is to provide a machine for these purposes, in which the parts are of such construction that an equal pressure will be distributed over the entire surface of the photographic film, while being mounted or embossed; further, to provide a machine for these purposes, which may be operated with ease and rapidity; and further, to provide a machine which will be the embodiment of simplicity, strength and durability, and which can be produced at a very small cost.

To attain these objects the invention consists in the several novel arrangements and combinations of parts to be hereinafter fully set forth and finally embodied in the claims.

In the accompanying sheets of drawings, Figure 1 is a perspective view of the machine, embodying the principles of my invention, illustrating in position on a card board on the bed-plate of the machine, a photographic print ready to be mounted on said card. Fig. 2 is a vertical longitudinal section of the machine. Fig. 3 is a vertical cross section of the same with the hinged pressure-bar or plate and operating handle removed; and Fig. 4 is a vertical longitudinal section of the machine, with the embossing dies in place, clearly illustrating the manner of embossing the photograph between the dies. Fig. 5 is a plan view of the bed plate and lower die of the machine, with the pressure bar or plate detached. Fig. 6 is a vertical longitudinal section, taken on line x—x in said Fig. 5, of the bed plate of the machine, with the pressure bar or plate removed, said view illustrating in connection with the bed plate, an oscillating die; and Fig. 7 is a perspective view of said die. Fig. 8 is a view similar to that illustrated in Fig. 4, clearly illustrating the operation of the lower oscillating die or mounting plate, when the pressure bar or plate is brought down to bear upon said die. Fig. 9 is a similar view of the machine, provided with still another modified form of oscillating embossing die; and Fig. 10 is a vertical cross section of the same. Fig. 11 is a perspective view of the oscillating die employed in connection with said Figs. 9 and 10.

Similar letters of reference indicate corresponding parts in the several figures.

In said views, a designates the base of the machine forming the bed plate for the mounting plate b or the lower die c, which rest in a recessed portion a' of said bed plate and are held in place by the surrounding edges a^2 of the said recess a' and a suitable screw d, as will be seen from the several figures of the drawings. Said bed plate may be slotted, as at a^3 and a^4, in which slots are arranged suitable guide plates e and e', see Fig. 5, provided with the projecting edges e^2 and adjusting screw e^3, whereby said plates e and e' can be adjusted in said slots a^3 and a^4 to enable the operator to quickly center any size card board on the mounting plate b or the die c, as will be understood.

The bed plate a may be provided with legs or supports a^5, which may be provided with screw-holes for firmly securing the machine to a table. At one end of the said bed plate a are formed the lugs or ears a^6 which are perforated and are provided with a pin a^7 on which is pivoted or hinged, by means of the ears or lugs f', a pressure bar or plate f. Said plate f is provided at the back with a projection f^2 which, when the said plate is raised, comes in contact with a stop a^8 on the base or bed plate of the machine and hence limits the swing of said plate f, at the same time

causing the retention of said plate in its raised position, as will be clearly seen from Figs. 1 and 2.

When the machine is to be used for mounting photographic prints, a plate *g* is secured by means of a screw *g'* to said pressure plate *f* and a piece of soft and flexible material *h*, adapted to absorb water, is arranged on said plate *g* and held in place thereon by means of two pivoted wire yokes *i* and *i'*, which are sprung over the edges g^2 of said plate and thereby firmly clamp the material *h* fast, as will be clearly understood. A card board is then placed upon the mounting plate *b* on the bed plate of the machine, and upon the card I place the gummed surface of the photographic print. When the pressure plate or bar *f* is lowered, the soft and flexible material *h* will bring an evenly distributed pressure over the entire surface of the photographic print, thereby preventing any creases in the paper, caused by the non-removal of air from between the surface of the card board and the print, and said flexible material *h*, at the same time absorbing the water from the print. When said plate or bar *f* is lowered to its full extent, a hand lever *k* pivotally secured to said plate by a pin *j* between the ears or lugs f^3, and provided with a suitable grasping jaw *k'*, causes said jaw to come in contact with a pin a^{10} held by projections a^9 on the bed plate *a*, as indicated in Fig. 8, and by applying a slight pressure upon the end of said lever *k*, its jaw *k'* is forced under said pin *j*, as illustrated in Fig. 4, whereby the pressure plate or bar *f* is securely clamped down upon the bed plate of the machine, thereby distributing an even pressure over the entire surface of the photographic print.

When it is desired to use the machine for embossing purposes, all that is necessary, is to unscrew the screws *d* and *g'*, and in place of the plate *b* I secure to the bed plate of the machine in the same manner, the lower die *c*, while to the pressure bar or plate *f*, I secure in like manner by means of the screw *g'* an upper die *l*, as clearly shown in Fig. 4. The lower die *c* is provided with the raised edge *c'* and raised center c^2 forming the recess c^3, which may be of any suitable configuration, while the upper die *l* is correspondingly lowered at *l'* and l^2 and raised at l^3, and when the two dies are brought together in the machine, in the manner described in connection with the process of mounting photographic prints, the photograph will be suitably embossed, as is clearly evident. By means of the hook-shaped end *k'* of the lever *k* coming in holding contact with the pin *j* the pressure can be retained for a sufficient length of time on the photograph to produce a neatly embossed picture. In order to prevent the turning of either of said plate *g* or the die *l* on the pressure bar or plate *f*, said plate *f* is provided with a pair of upwardly projecting pins f^4 which fit into suitable holes or perforations in said plate or in the die *l*, as clearly shown in Figs. 4 and 8.

Instead of securing the lower die directly to the bed plate of the machine by means of a screw, as shown in Figs. 4 and 5, &c., said plate may be provided on its under side with rockers c^4 and c^5, whereby the die can be made to rest in the recessed portion *a'* of the plate *a*, as illustrated in Fig. 6, and whereby the die is capable of an oscillatory motion. Thus it will be seen, that when the pressure bar or plate *f* is brought down upon the die *c*, the edge l^4 of the upper die *l* will first strike the end c^6 of the lower die *c*. In this manner, the said die *c* will oscillate on its rockers c^4 and c^5, thereby bringing the two faces of the dies in perfect contact against the picture to be embossed, before the final pressure is exerted by said dies, when the lever *k* is finally locked with the locking pin on the bed plate of the machine. In this manner the pressure will be applied uniformly over the entire surface of the card board, as will be evident. This construction of oscillatory plate is also equally well adapted to the mounting plate *b*, in which case said plate is provided with similar rockers.

In Figs. 9, 10 and 11, I have illustrated still another modified form of construction of oscillating die for embossing photographs. In this form of construction, the bed plate *a* of the machine is left open, as at a^{11}, see Figs. 9 and 10, being provided with suitable lugs or ears a^{12} on opposite sides of the said opening, as shown. The die *c* is provided with correspondingly arranged ears or lugs c^7 and c^8 having perforations c^9. A pin or bolt *m* is passed through an opening a^{13} in the side of the bed plate of the machine, through the perforated ears a^{12} on the plate *a*, and through the ears c^7 and c^8 on the die *c*, as will be seen from Fig. 10. Said die *c* is thus pivotally mounted in the open bed plate *a* and is capable of an oscillatory motion.

It will be seen that by making the guide plates *e* and *e'* adjustable, the machine can be used for mounting and embossing different sizes of photographic prints and photographs. It will also be seen that I provide a machine of very simple, strong and durable construction, which is thoroughly efficient in operation, and can be quickly and readily manipulated by any person.

Having thus described my invention, what I claim is—

1. A machine for mounting and embossing photographic prints, consisting essentially, of a bed plate, a female die on said bed plate, a pressure bar hinged to said bed plate, a male die on said pressure bar and means for causing the locked engagement of said pressure bar with the bed plate, consisting of a lever pivotally connected with the pressure bar or plate, provided with a holding jaw *k'*, at or near the fulcrumal point of the pressure bar, and a holding pin on the bed plate with which

said jaw is adapted to be engaged, substantially as and for the purposes set forth.

2. A machine for mounting and embossing photographic prints, consisting essentially, of a bed plate, a die on said bed plate, a pressure bar provided with a die and hinged to said bed plate, stops or projections on said bed plate and said pressure bar, to retain the same in its raised position, and means for causing the locked engagement of said pressure bar with the bed plate, consisting of a lever pivotally connected with the pressure bar, provided with a holding jaw k', and a holding pin on the bed plate, substantially as and for the purposes set forth.

3. A machine for mounting or embossing photographic prints, comprising therein, a bed plate, having a recessed portion a', a pressure bar pivotally connected with said bed-plate, a die on said pressure bar, and a die in said recessed portion a', said die having centrally arranged bearings, whereby said die is adapted to oscillate in said recessed portion, to bring the faces of the dies in perfect contact when the pressure bar is lowered, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 3d day of July, 1894.

CLATONIA JOAQUIN DORTICUS.

Witnesses:
THOMAS M. KAYS,
JOHN C. HOWELL.