

(No Model.)

C. E. CARPENTER.
ELECTRIC EMBOSSING STAMP.

No. 477,627.

Patented June 21, 1892.

Fig. 1.

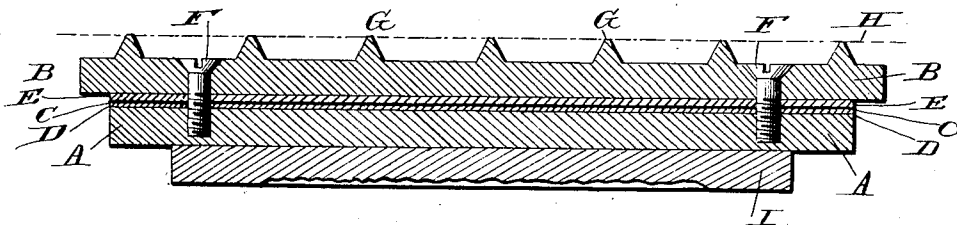
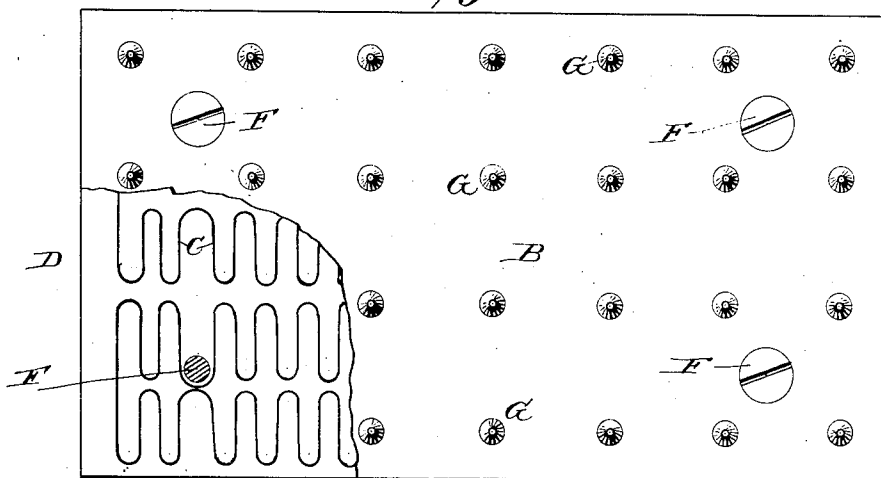


Fig. 2.



WITNESSES:

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ELECTRIC EMBOSsing-STAMP.

SPECIFICATION forming part of Letters Patent No. 477,627, dated June 21, 1892.

Application filed June 21, 1890. Serial No. 356,202. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. CARPENTER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Electric Embossing-Stamps; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in embossing or other stamps, which are now commonly heated by the direct action thereon of fire or a gas-jet or other similar means for raising the temperature thereof to the desired degree suitable for embossing. The objections to these methods are the great wastage of heat, the inconvenience of handling a stamp when so heated, and the resultant heating of the bed and other parts of the press in proximity to the stamp.

The prime object of this invention is to have the stamp electrically heated and so constructed as to withstand the pressure to which a stamp of this kind is subjected when in use.

Another object is to prevent, as far as possible, the wastage of heat by conduction from the stamp to the bed of the machine, against which it bears.

These objects are attained by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a vertical longitudinal section through an embossing-stamp embodying my invention, and Fig. 2 a top plan view thereof with parts broken away to more clearly disclose the internal structure.

Similar letters of reference indicate the same parts throughout both figures of the drawings.

Referring by letter to the accompanying drawings, A represents the plate to be heated, and B the compressing-plate, between which intervene the electrical conductor or resistant of the reflexed type (indicated in Fig. 2) and the electrical insulation D and a layer or card of asbestos E, which latter not only insulates

the resistance electrically from the compressing-plate, but also serves to greatly impair the conduction of heat and tends to concentrate the same upon the plate A.

Pressure between the plates A and B is obtained by means of screw F, working through the plate D and engaging the screw-threaded sockets in the plate A, thereby binding the intervening elements firmly together under pressure.

The plate B is provided with a series of conical projections G, of any desirable number, and distributed over its surface, as may be deemed best, which terminate in the same plane on the dotted line H, which theoretically represents the bed of the press or other surface against which the stamp bears. The function of these conical projections is to support the plate D upon the bed of the press and still reduce the surface of contact to the minimum, for obviously much less heat will be conducted, and hence wasted, with this form of structure than if the cones or points were not used. I may here state, however, that rigid corrugations or any other form of projections from the surface of the compressing-plate may be substituted for the cones without departing from the spirit of my invention, the cones, however, being preferred, because giving so little contact for the amount of support derived therefrom.

This apparatus is used as a plate, to which embossing-stamps used in book-binderries as well as shoe-stamps and similar utensils may be detachably secured, as represented by the plate I in Fig. 1, either by screws or in the manner now commonly used of intervening between the plate A of the embossing-plate and the stamp I, with its engraved surface, a layer of paper or pasteboard, to the surfaces of which is applied glue, paste, or some other adhesive material. If desired, however, the stamp proper may constitute a permanent part of the heating apparatus by dispensing with the heated plate A and attaching the compressing-plate by the screws F directly to the stamp I, with the heating element intervening therebetween. This latter construction may be found most desirable in binderries where a single stamp is used continuously or for any considerable amount of

work; but where the stamp is changed at intervals of greater or less length the first-described construction will be found most advantageous.

- 5 An embossing-stamp constructed as herein described possesses numerous advantages, chief among which is its capability of withstanding the heavy pressure to which such a utensil is subjected without injury thereto
10 and without impairing the usefulness thereof, combining economy and convenience as well as utility in the maximum degree.

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

- 15 1. In an electric embossing-stamp, the combination, with the heated plate, the compressing-plate secured thereto under pressure, and projections upon the outer face of said compressing-plate, of an electrical conductor or

resistance interposed between said plates and an insulation interposed between said resistance and each of said plates, substantially as described.

2. In an electric embossing-stamp, the combination, with the heated plate, the stamp detachably secured thereto, the compressing-plate secured to said heated plate under pressure, and projections on the outer face of said compressing-plate, of an electrical conductor or resistance confined between said heated and compressing plates and an insulation interposed between said resistance and each of said plates, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. CARPENTER.

Witnesses:

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