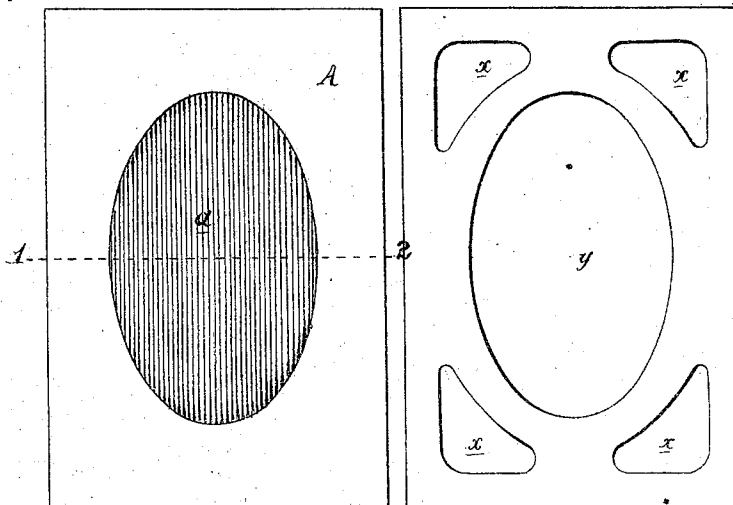
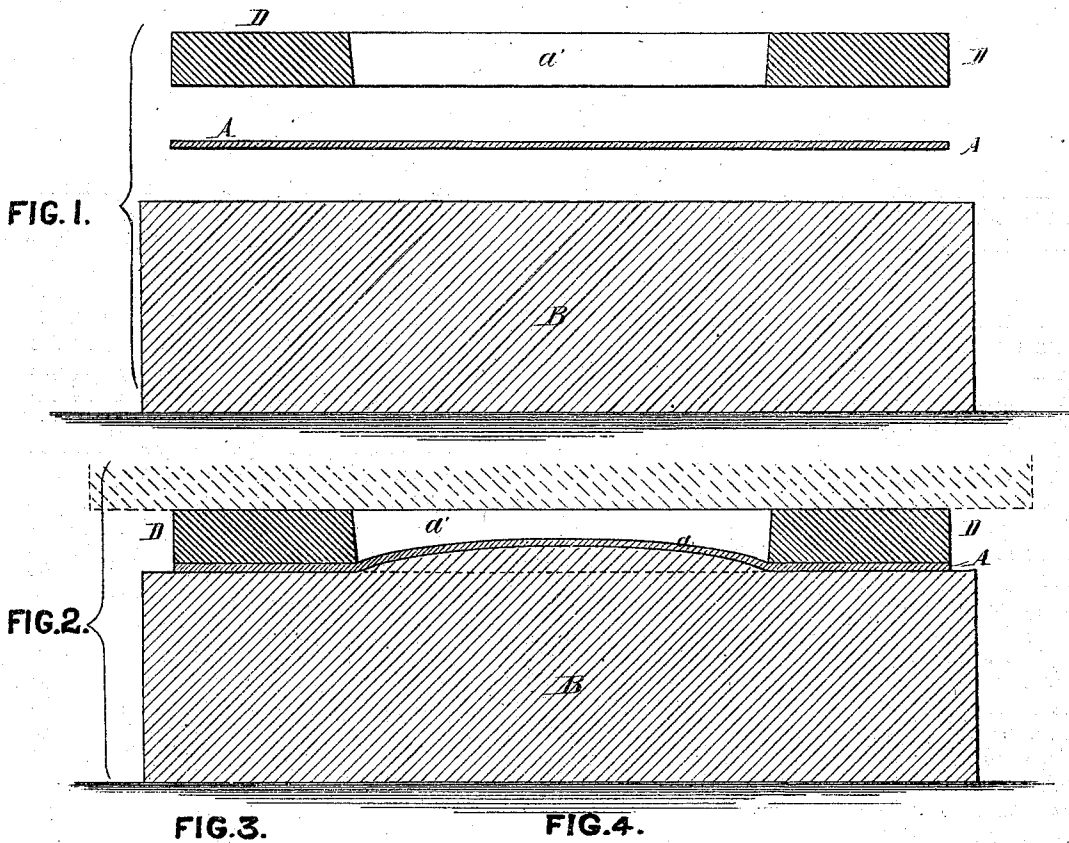
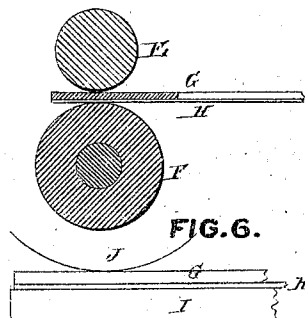


ROBERT J. CHUTE.

Improvement in Embossing.

No. 122,569.

Patented Jan. 9, 1872.

**FIG. 5.**

Witnesses { *Geo. B. Harding*
John Parker

Inventor, *Robt. J. Chute*
 by his Attor.
Horrocks and Son

UNITED STATES PATENT OFFICE.

ROBERT J. CHUTE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN EMBOSSING.

Specification forming part of Letters Patent No. 122,569, dated January 9, 1872.

Specification describing a Process of Embossing, invented by ROBERT J. CHUTE, of Philadelphia, Pennsylvania.

Process of Embossing.

My invention consists in the raising of projections on thin material by subjecting it to the combined action, under pressure, of a perforated plate and an elastic yielding bed, substantially in the manner described hereafter, my invention being a cheap substitute for the ordinary process of embossing by costly dies and matrixes.

In the accompanying drawing, Figures 1 and 2 are sectional views illustrating my process of embossing; Fig. 3, a specimen of the products of the process; Fig. 4, a plate which may be used in practicing the process; and Figures 5 and 6, sectional diagrams illustrating modifications of my invention.

One of the simplest products of my invention is a medallion card-photograph, Fig. 3—that is, a photograph mounted on a card, A, and afterward embossed so that the oval portion *a*, containing the picture, shall have a raised and rounded surface, this being the medallion portion of the picture raised from the card A. The views, Figs. 1 and 2, illustrate my process as applied to the raising of the medallion on the card. B is a block of rubber placed on the bed of any suitable press, and D is a metal plate, in which is cut an oval opening, *a'*, of the same form and dimensions as the desired oval projection on the card. A, in Figs. 1 and 2, is a section of the card, Fig. 3, on the line 1 2, the latter figure being the actual size of the card, while, in order to illustrate my invention fully, Figs. 1 and 2 are double the actual size.

On placing the card A on the rubber block and the plate on top of the card, and then subjecting the whole to pressure, the card and rubber will be compressed by the plate, as shown in Fig. 2; but so much of rubber and card as is within the edges of the oval opening will be more or less relieved from this pressure, the effects of the pressure being the least at the center of the oval opening and becoming more and more perceptible toward the edges of the same; hence so much of the rubber and card as are within the edges of the opening will as-

sume the curved form represented in the cross-sectional view, Fig. 2, the curve being gradual on all sides from the edge of the oval opening to the center of the same; hence an oval medallion, corresponding in shape with that of the oval hole in the plate, will be formed on the face of the card, a medallion which, by the usual process of embossing, would require the combined action of an expensive die and matrix.

The plate D may, if desired, be composed of several thicknesses of paper lined beneath with a thin plate of metal or other hard material.

My invention, however, is not restricted to the embossing of medallions on photographic cards, but may be applied to many other manufactures. A plate, Fig. 4, for instance, with openings *x x x x* and *y*, may be used for embossing the leather or cloth covers of photographic albums or other books, the cover, after being subjected to pressure between the plate and a rubber block, as described above, having rounded elevations corresponding in shape with the said openings.

The flat portions of the cover, or even the raised portions of the same, may have minor ornamentations imparted to them by the ordinary embossing process; or the plate D itself may have ornamental projections for making ornamental indentations in the flat or unraised portions of the cover of a book or of any other object.

My invention may be applied to the embossing of thin metal plates, or, in fact, any thin material which will yield readily to the combined action of a perforated plate and rubber block under pressure. The desired pressure may be imparted by rollers, as shown in Fig. 5, the upper roller being rigid and the lower roller clothed with rubber. A perforated plate, G, is placed above the thin material H to be embossed, and the two together are passed between the two rollers, the result being the raising on the material H of rounded projections corresponding in shape with the perforations of the plate.

If desired, the material H to be embossed may be interposed between the perforated plate G and a strip, I, of rubber, and the whole passed between two rigid rollers, J and J', with a like result.

I claim as my invention—

The raising of projections on thin material by subjecting it to the combined action, under pressure, of a perforated plate and an elastic yielding bed or roller, substantially in the manner described.

In testimony whereof I have signed my name

to this specification in the presence of two subscribing witnesses.

ROBERT J. CHUTE.

Witnesses:

H. HOWSON,

WM. A. STEEL.

(54)