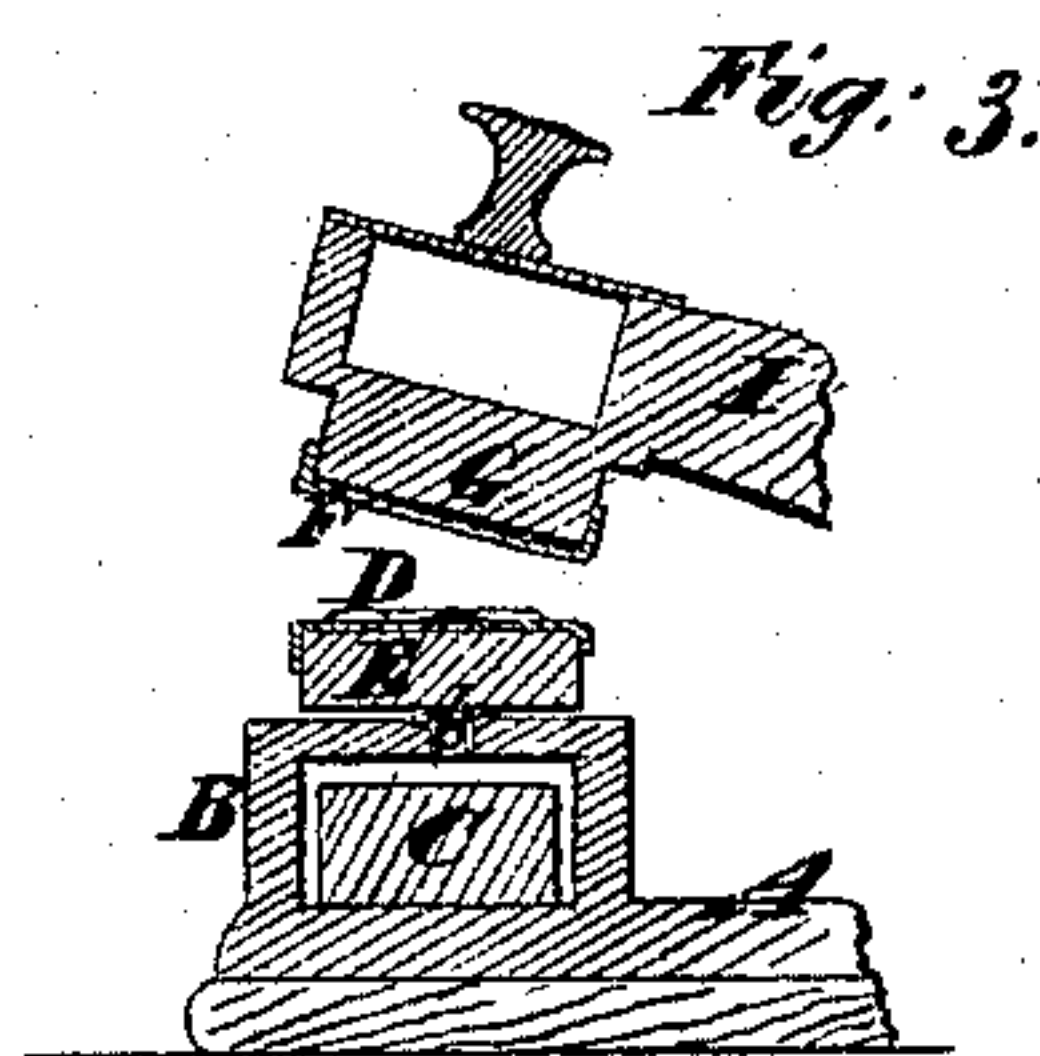
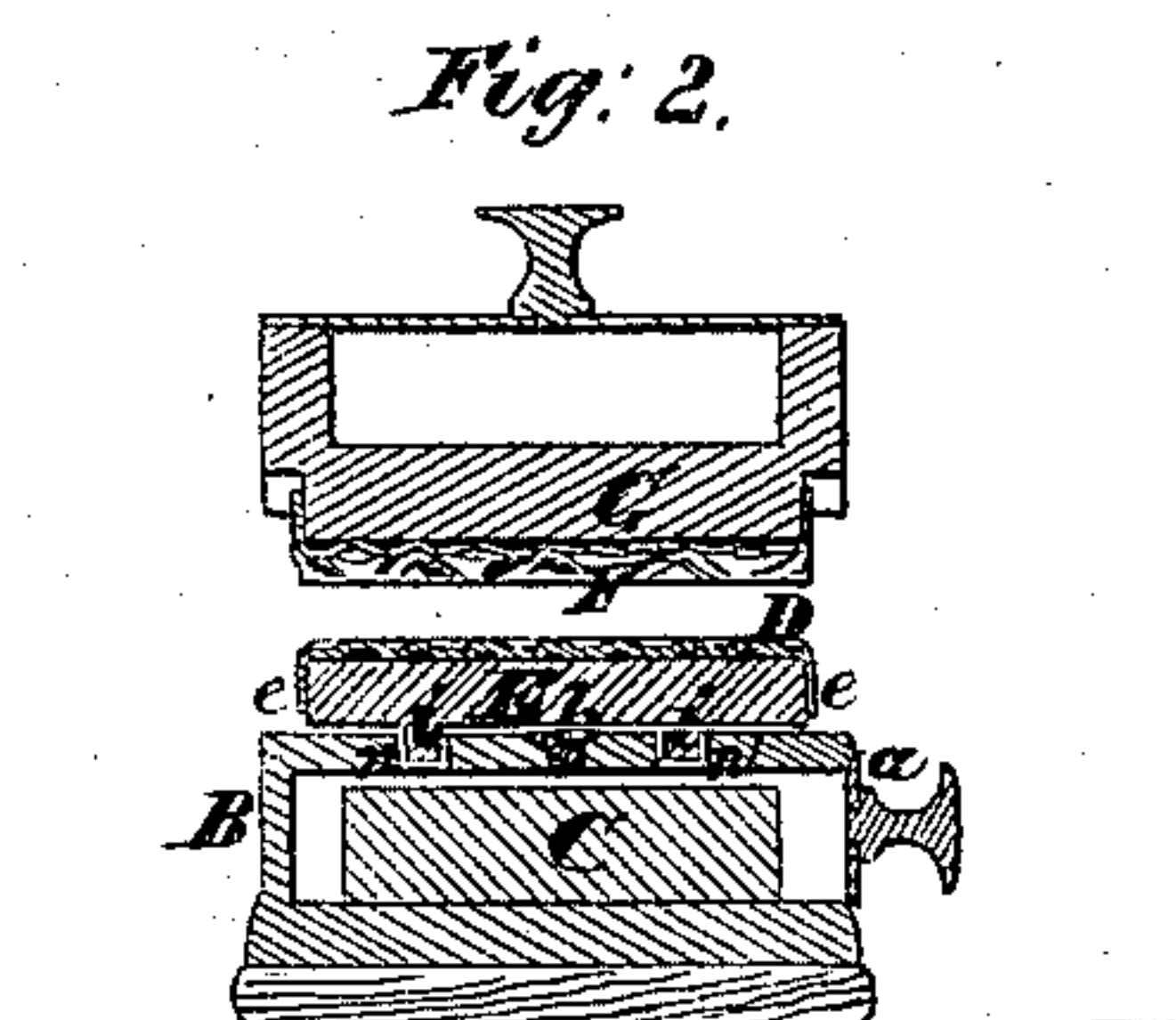
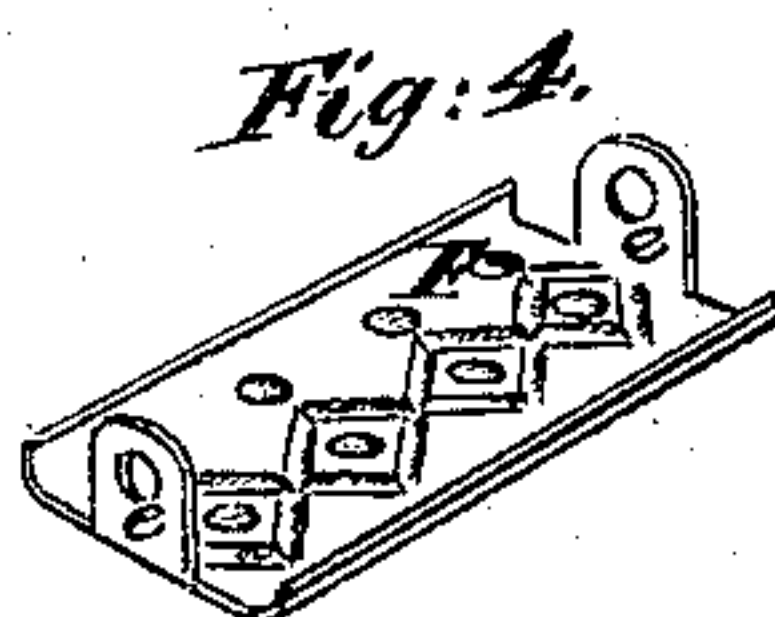
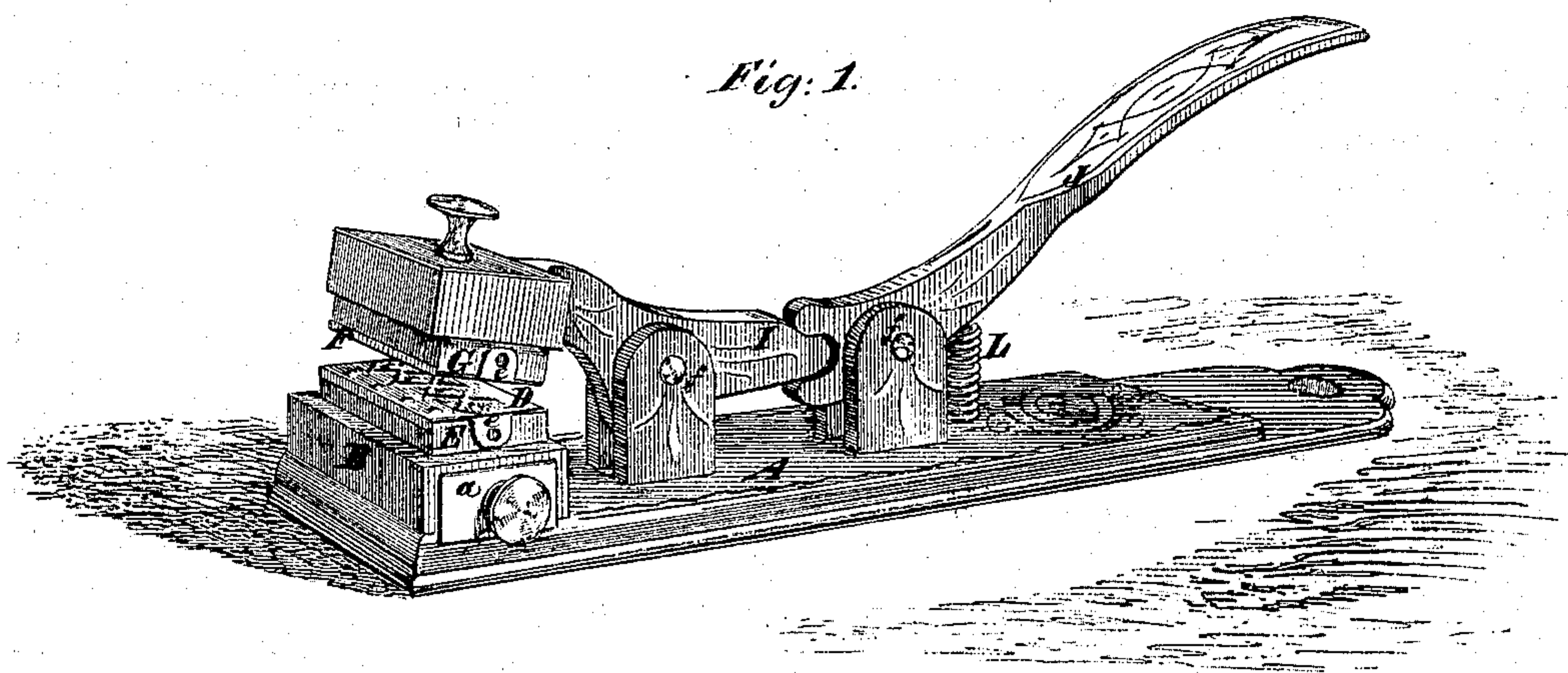


L. H. OLMSTED.

Improvement in Presses for Embossing Linen and other Fabrics.

No. 125,610.

Patented April 9, 1872.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEVERETT H. OLMSTED, OF NEW YORK, N. Y.

IMPROVEMENT IN PRESSES FOR EMBOSsing LINEN AND OTHER FABRICS.

Specification forming part of Letters Patent No. 125,610, dated April 9, 1872.

Specification of an Improved Press for Embossing Linen and other Fabrics, invented by LEVERETT H. OLMSTED, of the city, county and State of New York.

This invention relates to that class of embossing presses which operate by direct pressure, and are designed as substitutes for more expensive rotary embossing machines in common use, whose cost precludes their general adoption by families and others having but little work for them. It consists in a novel construction of the press itself, and a novel construction of the embossing-dies with sheet-metal faces, whereby a cheap and very effective press is obtained.

In the accompanying drawing, Figure 1 is a perspective view of an embossing-press constructed according to my invention. Fig. 2 is a transverse section of the same through the dies. Fig. 3 is another section of the dies, taken longitudinally to the press; and Fig. 4 is a perspective view of one of the dies detached.

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

A is the bed-plate of the press. It has formed on its forward end a hollow die-bed or box, B, open at one end, and having its opening fitted with a removable cover, *a*, which permits the introduction of a heated block of metal or other substance, C, for heating the stationary die, which is arranged over it. This die consists of a sheet-metal face-plate, D, and a solid cast-iron backing or body, E. The backing or body rests on a projection or teat, *b*, on the top of the heater-box B, which allows it to rock; and it is secured in place simply by means of two pins, *i i*, which project from its under side fitting loosely enough within holes in the top of the heater-box B to allow the die to have a slight self-adjusting movement horizontally. The face-plate D is secured to the body E of the die by means of the elasticity of lips or lugs *e e* on its edges overlapping the sides of said body, and by their elasticity retaining the face-plate in place. This sheet-metal face-plate, which constitutes the die proper, is preferably made of brass, and the pattern is produced in it by stamping or striking it up. The movable die of the press consists, likewise, of a face-plate, F, attached similarly by elastic lips or lugs to a backing or body, G, formed on the under side of another covered heater-

box at the end of a compound lever, I J, pivoted to fulcrums *f f* on the bed-plate. This compound lever is composed of two single levers, I and J, the latter being provided with a handle at one end, and connected at the other by means a fork with the former whose forward end carries the movable die. Just in rear of the fulcrum *f*, of the lever J, a spiral spring, L, is applied to its under side, and by forcing the rear arm of this lever up consequently depresses its forward arm and the rear arm of the lever I, and thereby raises the forward end of said lever and the movable die attached thereto.

To use the press the heater-boxes are first supplied with the heated blocks of metal or other substance, and face-plates of any pattern with which it is desired to emboss are applied to the bodies of the dies by slipping them over said bodies. The article to be embossed is then inserted between the dies, and the handle of the compound lever I J is then pressed down to force down the movable die, and so grip the article to be embossed between it and the stationary die, and so cause it to take the pattern of the dies. The handle is then let go, and by the spiral spring L the movable die is raised. The article being embossed is then shifted the width of the dies, and the movable die again forced down, and so on till the embossing is completed. During the operation the stationary die adjusts itself, (both by rocking on the teat *b* and moving longitudinally and laterally as permitted by the pins *i i* and holes *n n*,) to the movable die, so that the two shall exactly fit and give a clear and well-defined impression to the article to be embossed.

The face-plates of the dies being made of sheet-metal are sufficiently elastic or yielding to accommodate inequalities in each other, and to prevent the tearing of the article to be embossed between them, and they will also accommodate irregularities in the fabric; and in these respects are superior to solid dies, besides which such dies can be made with true and smooth and perfectly-matching faces at much less expense than solid embossing-dies.

It may not always be necessary to make the lower die-bed B hollow to constitute a heater-box for the reception of a heater, as the heating of the upper die may be sufficient.

Claims.

1. The improved press for embossing fabrics, consisting of the bed-plate and its attached stationary die-bed and die, and the compound lever, and its attached heater-box and die, the whole combined substantially as herein set forth.

2. The combination of a sheet-metal face-plate or die, a solid backing or body, and a heater-box, substantially as and for the purpose specified.

3. The combination with the die-bed and the

body or backing of the embossing-die, of the holes *n n*, the pins *i i*, and the teat *b*, substantially as and for the purpose set forth.

4. The sheet-metal dies, constructed with lips, whereby they attach themselves by elasticity of said lips to the solid backing, substantially as herein described.

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