

J. Fielemeier,

Carring Wood.

N^o 5,747.

Patented Sep. 5, 1848.

Fig. 7.

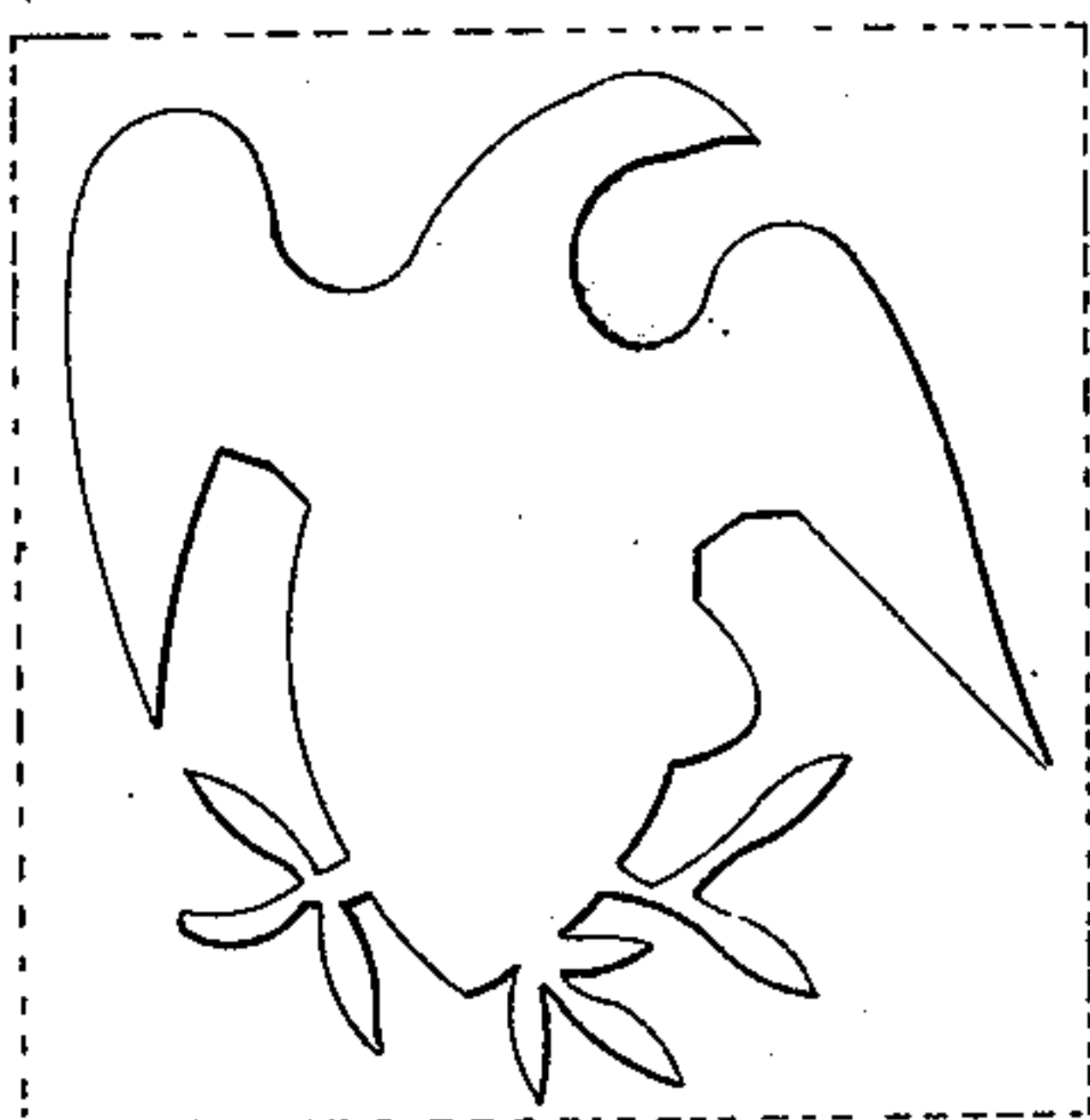


Fig. 8.

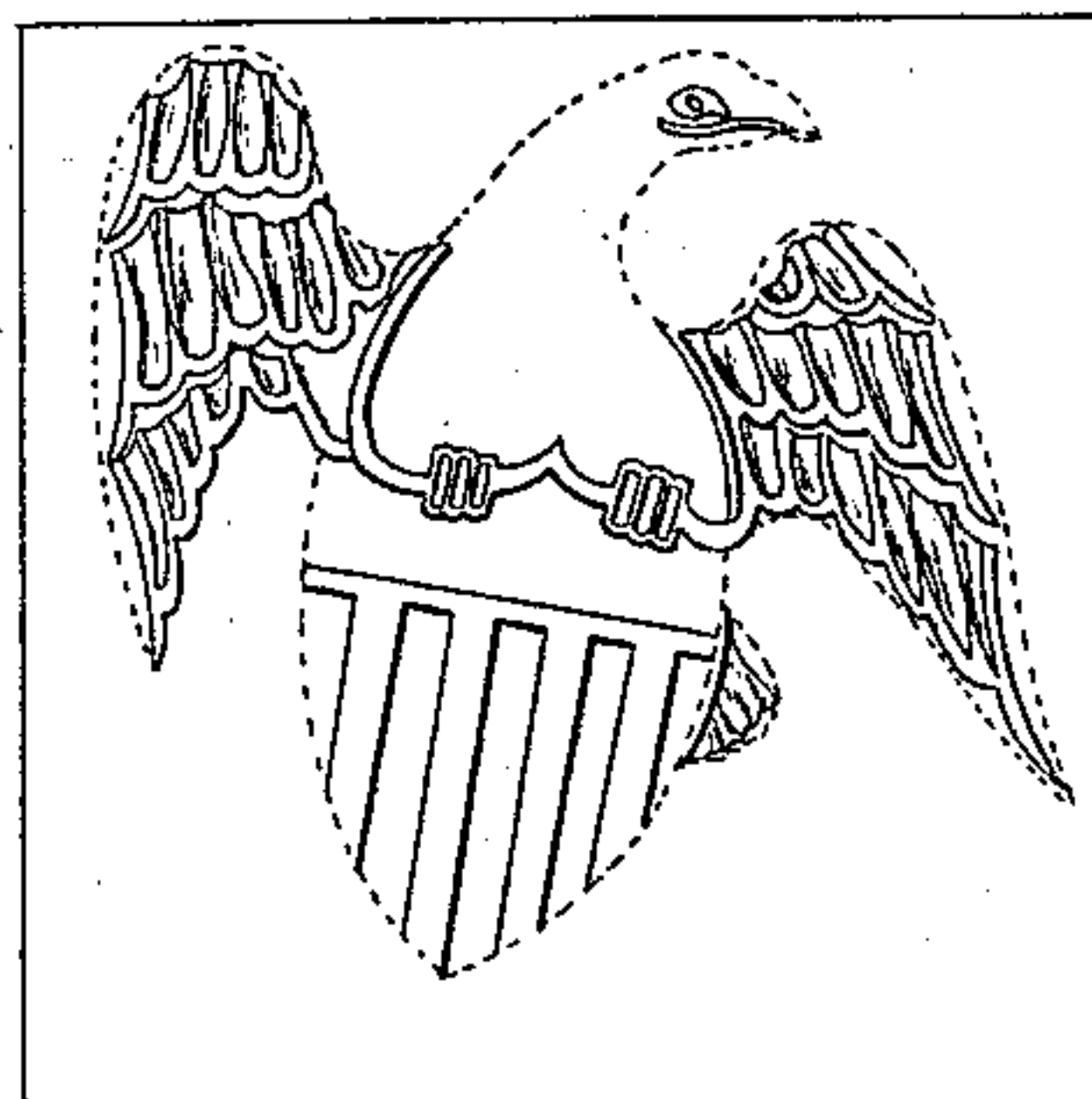


Fig. 4.

Fig. 3.

Fig. 5.

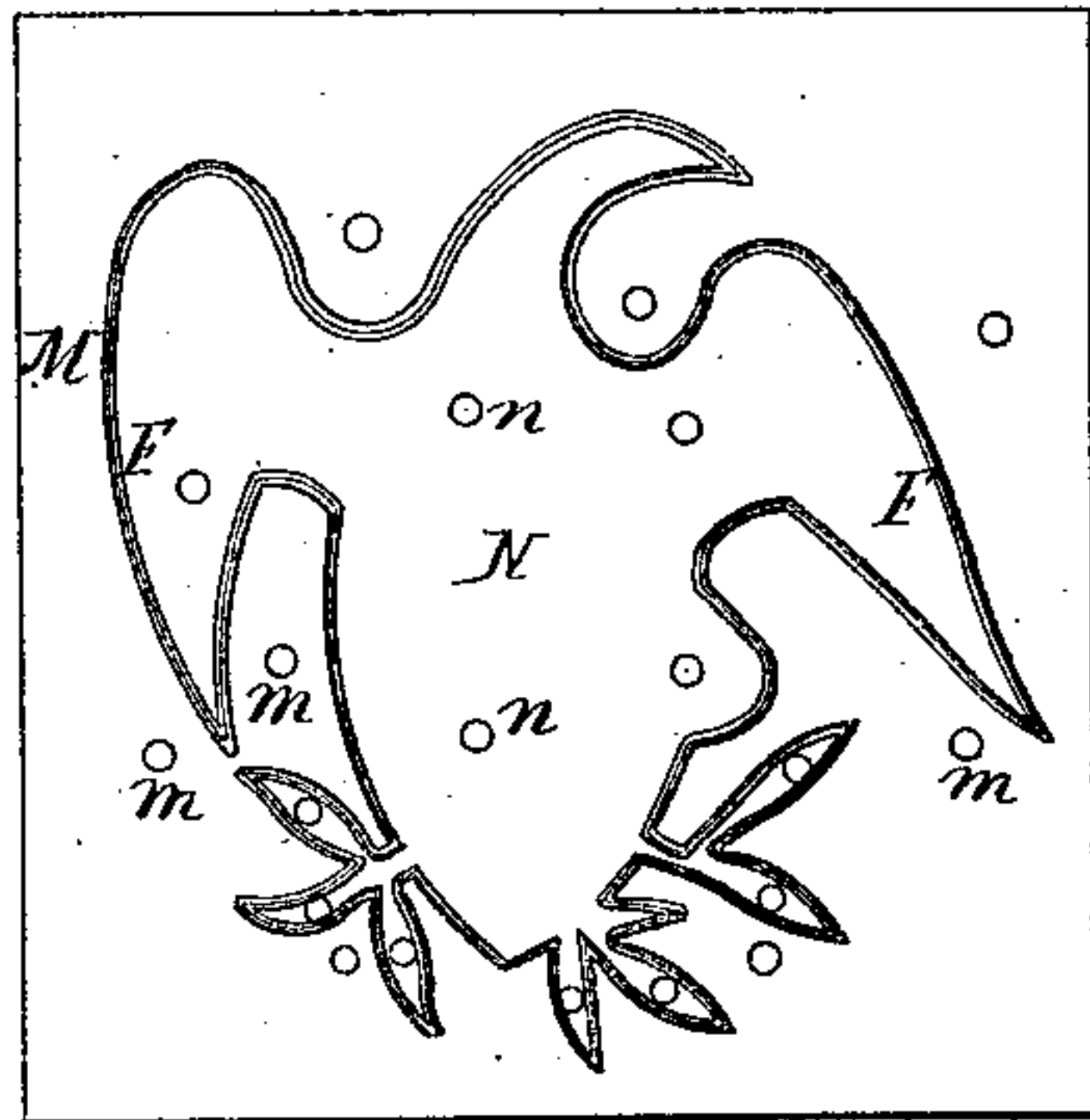
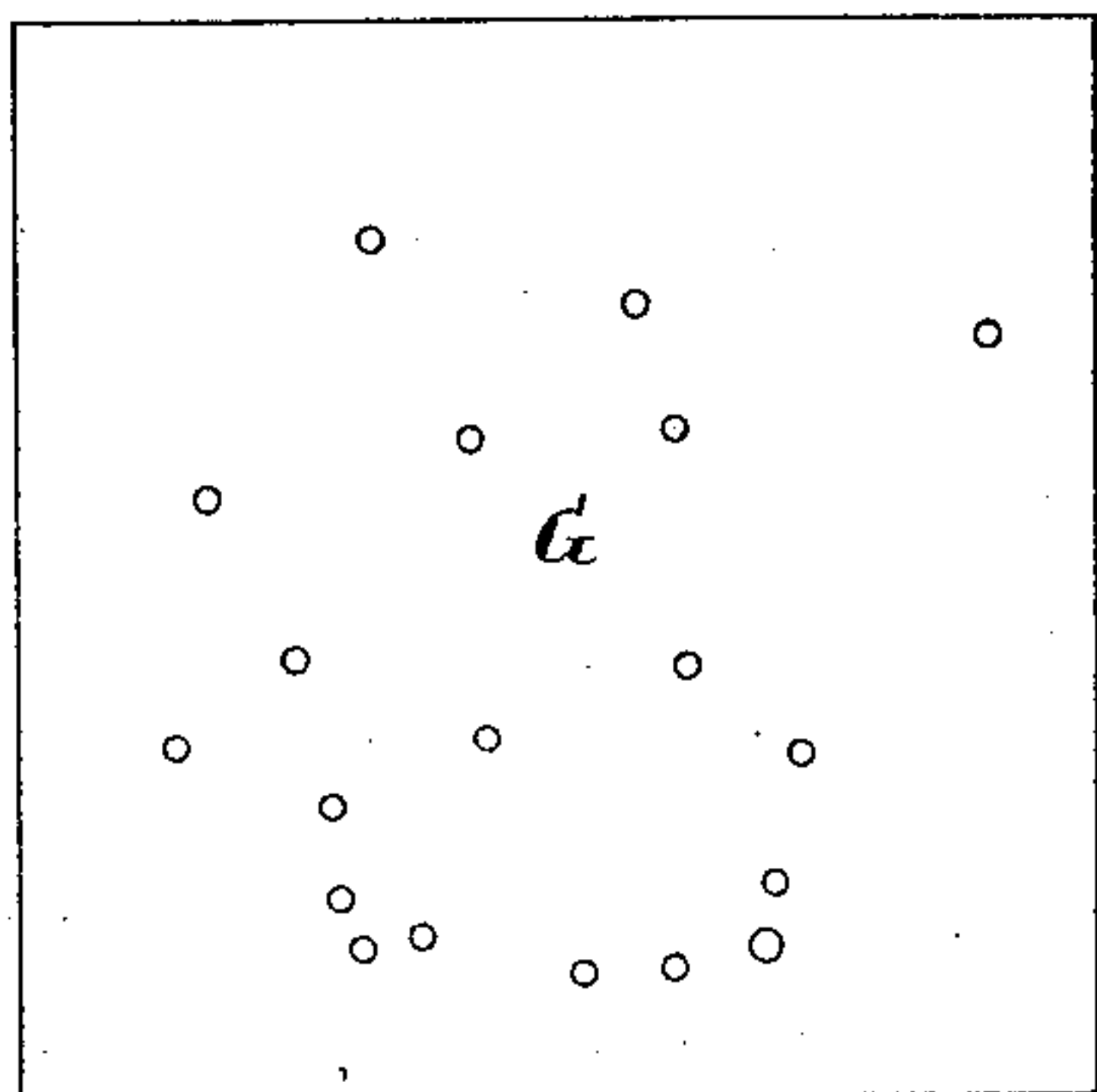
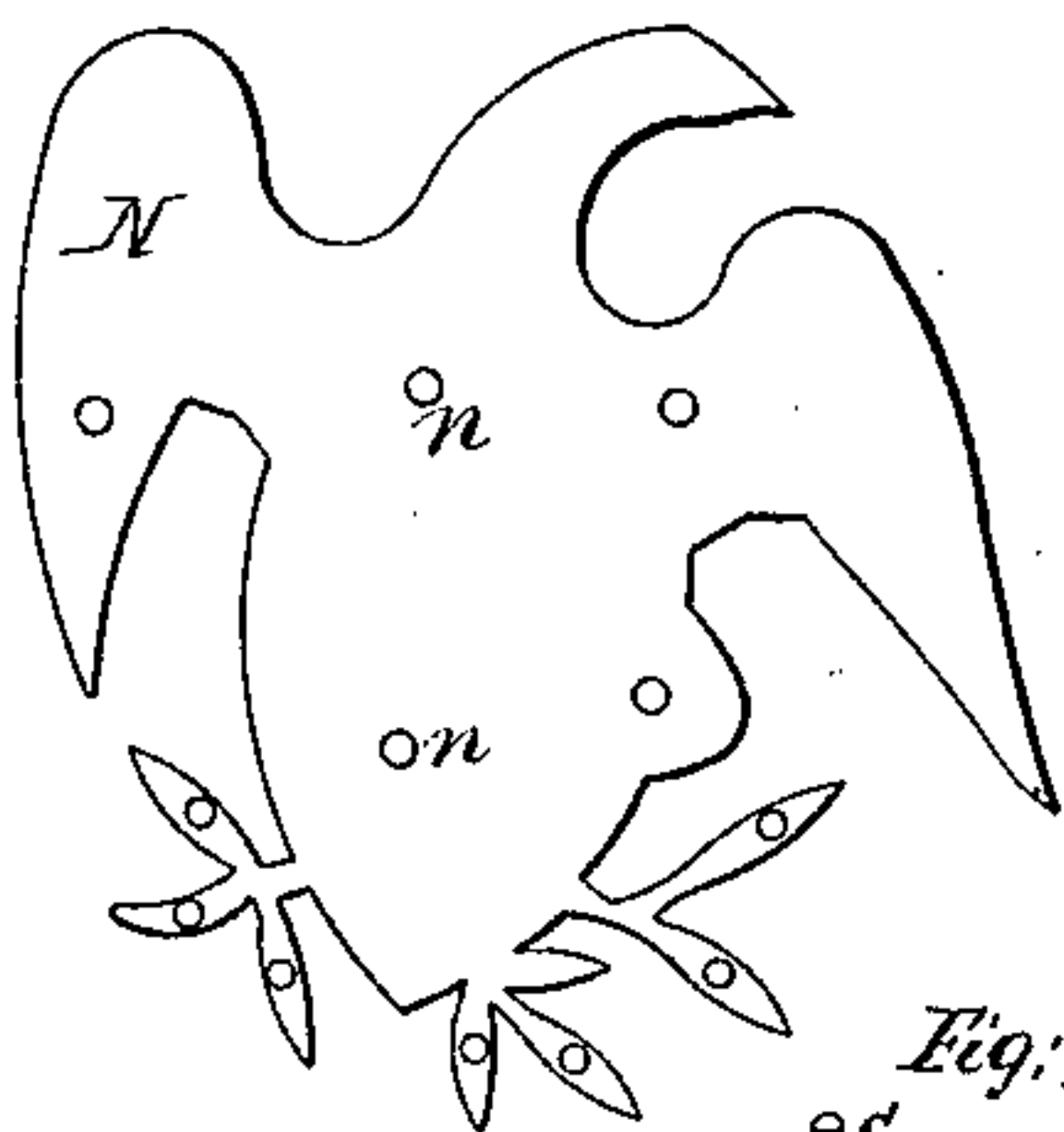


Fig. 1.

Fig. 2.

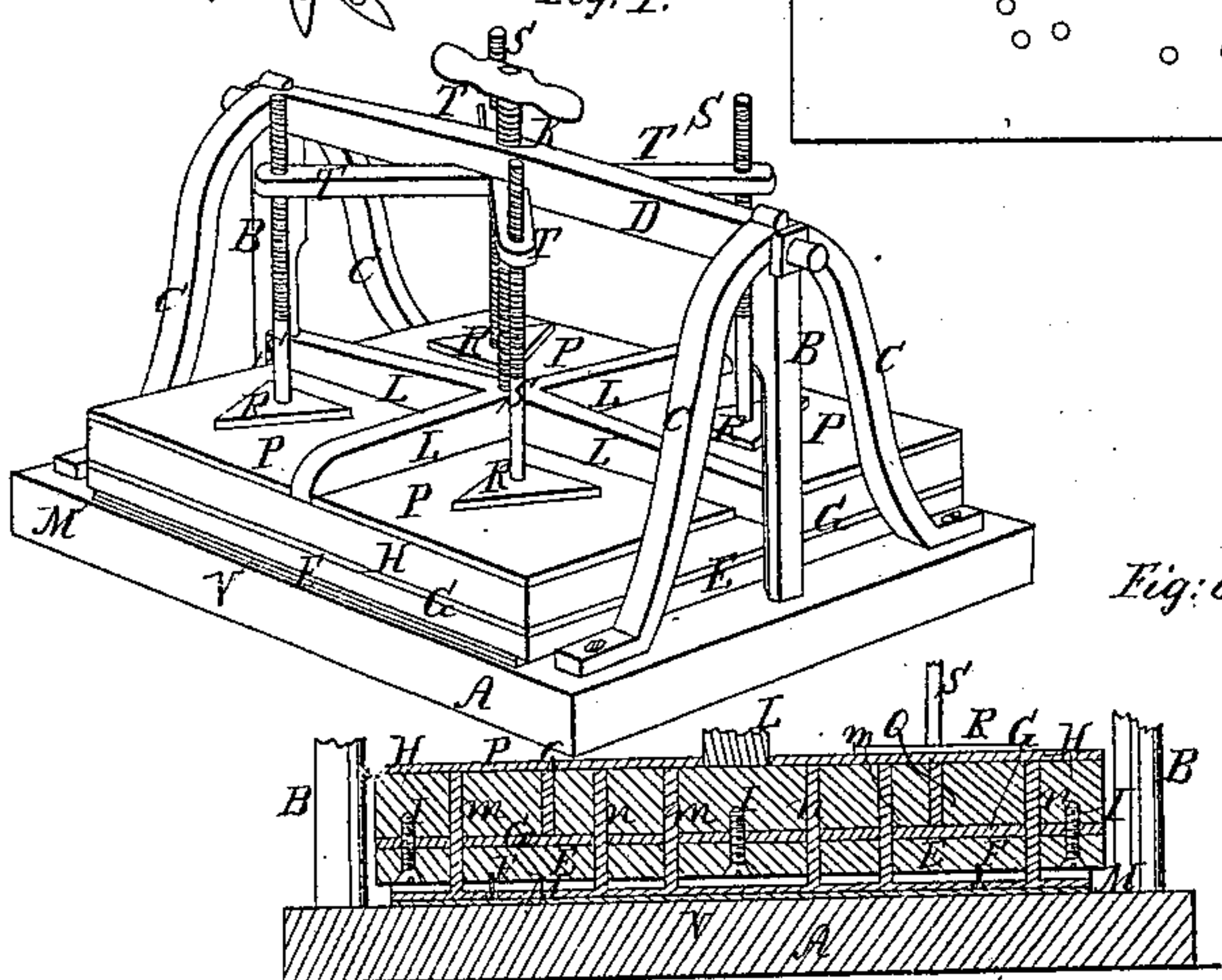
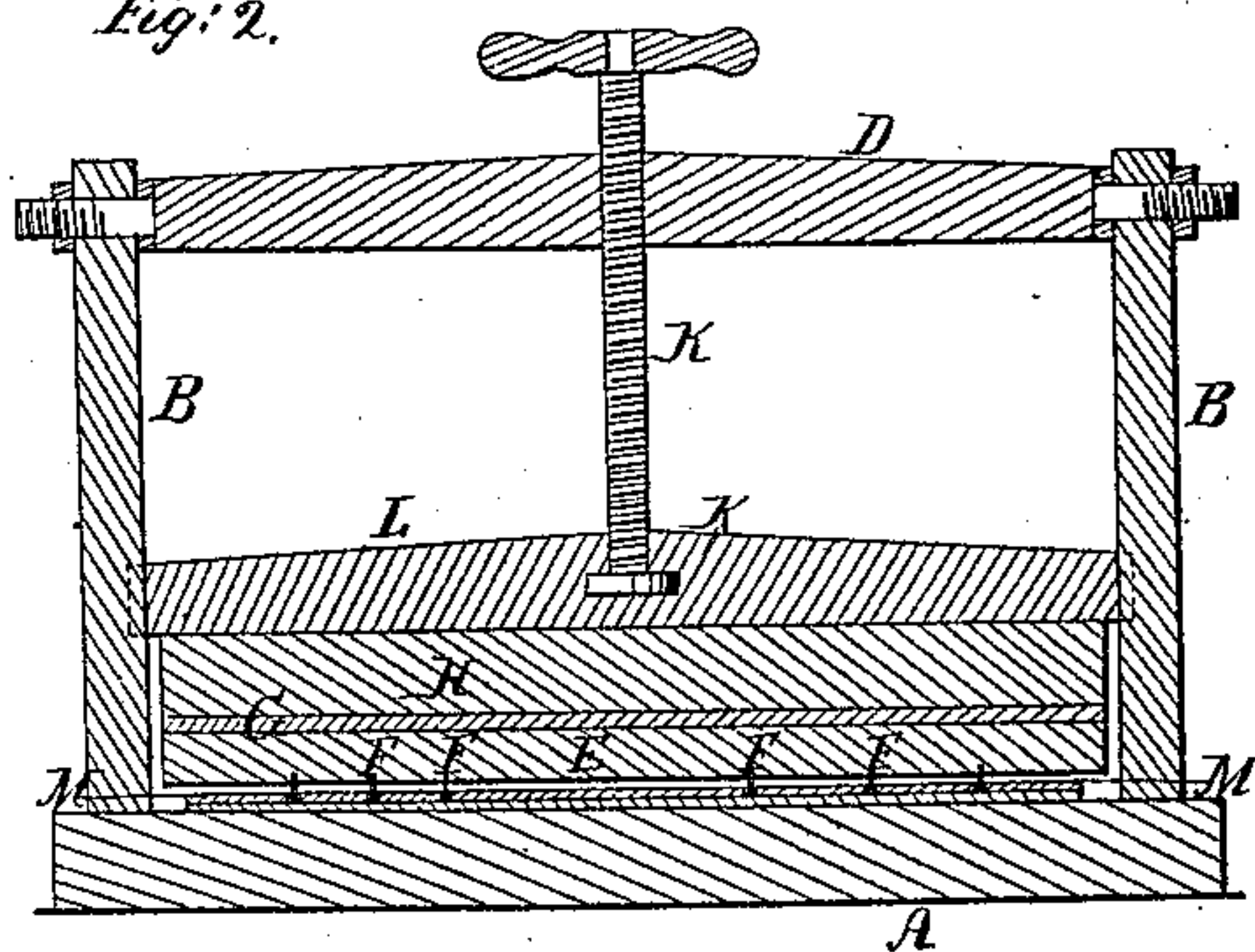


Fig. 6.



UNITED STATES PATENT OFFICE.

JOSEPH FIELEMEIER, OF PHILADELPHIA, PENNSYLVANIA.

CUTTING VENEERS INTO FIGURES.

Specification of Letters Patent No. 5,747, dated September 5, 1848.

To all whom it may concern:

Be it known that I, JOSEPH FIELEMEIER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful improvement in machines for cutting figures of any required form out of veneering, and other thin articles for inlaying and ornamenting furniture and other articles, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the machine,—in a position ready to cut the veneering. Fig. 2 is a vertical cross section of ditto—through the center. Fig. 3 is a horizontal section through the horizontal plate G. Fig. 4 is a top view of the inner clamp plate detached from the machine, which is the shape of the figure intended to be cut. Fig. 5 is a top view of the inner and outer clamp plates the single line between them representing the form of the cutters and their relation to said plates when adjusted for operation. Fig. 6 is a vertical cross section through the block and metallic plate, cutters, clamp plates, &c., showing the veneering in a position to be cut and the machine ready for operation. Fig. 7 is a plan of the cutters the dotted lines showing the metallic plate into which they are embedded. Fig. 8 is a view of a cast iron plate having ornamental ridges formed on its face corresponding with the plumage of an eagle for branding the figure cut from the veneering.

Similar letters of reference in the several figures refer to corresponding parts.

The nature of this invention consists in cutting figures of any required form out of veneering or other thin article, by means of steel cutters, corresponding in form with the figure to be cut, and firmly embedded in the lower surface of a leaden or other metallic plate fastened to a horizontal block of wood, arranged between upright guides, secured to another horizontal block, forming the bed or table, between which and the cutters the veneering or other article to be cut is placed. Said block and plate of cutters being raised and forced down upon the veneering by means of a vertical screw working in a female screw formed in a fixed cross piece of the frame, and attached at its lower end to a casting secured to the block and plate—the veneering being held firmly during the operation of cutting, and disengaged

from the cutters without breaking the edges of the figure by means of clamp plates arranged between the veneering and plate cutters and operated by a combination of screws, plates, and rods, in the manner hereafter described.

The base A of the machine consists of an oblong or square block of wood, on each side of which is secured a vertical metallic guide post B made V shaped on its inner edge and held firmly by curved braces C and a cross bar D extending from one to the other. Between these guides is arranged a horizontal leaden or other metallic plate E having a set of steel cutters F Figs. 2, 5 and 7 corresponding in shape with the figure to be cut embedded in its lower surface which leaden plate is secured to a similar shaped plate G of iron placed between it and a block of wood H immediately above it by screws I in such manner that it can be removed at pleasure and another one having differently formed cutters inserted in its place. This block and plate of cutters thus secured together are raised and lowered, as occasion may require, by means of a vertical screw K turning in a female screw in the cross bar D of the frame and having a handle on its upper end for giving motion to the same and a head or button $\frac{1}{2}$ on its lower end working in a similarly formed cavity in the right angled cross bars L secured on top of the block H—said block and plates being guided in their movements by the V shaped guides B formed on the inner sides of the posts and entering corresponding depressions in the ends of one of the cross bars.

Two horizontal clamp plates M, N, Figs. 1, 2, and 5 are placed between the horizontal base block A of the frame and the metallic plate E of the cutters F for the purpose of holding the veneering during the operation of cutting, and disengaging the same from the cutters without breaking the edges after the figures are cut.

The larger or outer plate M is made square on the outer edges, and curved on its inner edges to the form of an eagle, to correspond with the eagle form of the cutters F and the edges of the inner clamp plate which are also of the form of the outline of an eagle—the edges of the said smaller or inner clamp plate are curved to correspond with the curvature of the inner edges of the outer plate in order to leave

a space between the inner edges of the outer plate M and the inner plate N just wide enough to allow the cutters F to pass through without touching either plate as aforesaid, and as represented at F in Fig. 5. These plates M N are held in their proper places by means of a series of upright pins or rods *m, n*, secured to their upper surfaces and extending through openings in the plates E G and being in length a little greater than the thickness of the plates E G, block H and veneering, so that when the veneering V is placed in the machine and before it is cut (as represented in Fig. 6) their upper ends shall touch the under surfaces of four horizontal metallic plates P P P P arranged at the corners of the block H and held in their proper positions by pins Q projecting from their lower surfaces and entering openings in the block H. The plates P P P P are held down upon the rods *m n* by the triangular plates R which are attached to the lower ends of the screws S that turn in female screws in arms T extending horizontally from the sides of the fixed cross head D which is fastened to the permanent base A by the posts B and the braces C. The triangular plates R are to be raised or lowered by the screws S in order to adjust the plates M N for clamping veneering of various thicknesses. The clamp plates may be formed from a single plate by drawing thereon the intended design to be cut from the veneering and dividing the plate by cutting it through along said lines and then filing the cut edges till a space shall be formed between them (when the plates are again placed together) sufficiently large to admit the cutters (made of thin steel watch-springs) to work freely between them.

The operation of the machine is described as follows. The sheet of veneering V is placed between the clamp plates M N and the base block A and the clamp plates brought down upon it firmly by turning the screw S which cause the triangular plates R to descend upon the square plates P and press them hard down upon the stems or rods *m n* of the clamp plates M N—the guide rods Q attached to the under sides of the plates P preventing any horizontal

movements in said plates. The screw K is then turned which causes the crossed frame L and all the appendages suspended to its lower end *k* to descend carrying with it the metallic stock L and cutters F—which latter are forced through the veneering, the base A, guides B, cross head D, screws S, plates R and M, N and stems *m n* remaining stationary. The motion of the screw K is then reversed which causes the aforesaid movable frame and cutters to rise and leave the veneering without breaking the edges of the figure cut by means of the clamp binding the edges of the cut portions of the veneering. To remove the veneering all the plates must be raised which is effected by turning the screws. The veneering is then removed and another sheet put in its place and operated on in the same manner. The stamp Fig. 8 (previously heated) is then applied to the cut figure to brand it with the devices on its face, such as the pinions, talons, eye and shield, &c., of the eagle.

Any description of figures may be cut and stamped in the same manner by changing the form of the cutters, clamp plates, brands & c. The inlaying of the pieces of wood thus cut and branded is performed in the usual manner.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The combination of the clamp plates M, N for holding the veneering with the cutters and the block or stock to which they are attached as described.

2. I claim the combination of the movable plates and screws for operating the clamps and cutters with the fixed head and arms secured to the base or platform by the combined posts and vertical guides as described.

3. I claim the combination of the leaden, iron, and wood plates with the steel spring cutters bedded into the leaden plate as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses this 17 day of September A. D. 1847.

JOSEPH FIELEMEIER.

Witnesses:

WM. P. ELLIOT,
A. E. H. JOHNSON.