(No Model.) 2 Sheets—Sheet 1.

B. RION & H. DUPONT.

MACHINE FOR SHAPING ARTIFICIAL FLOWERS.

No. 496,899. Patented May 9, 1893.

Fig: 1.

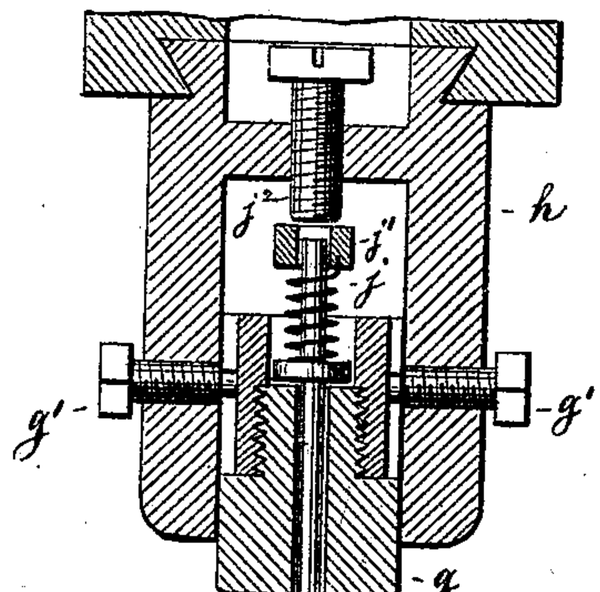
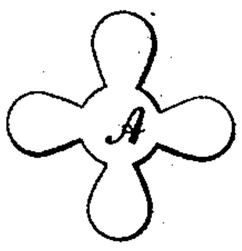


Fig: 2.

Fig: 3.



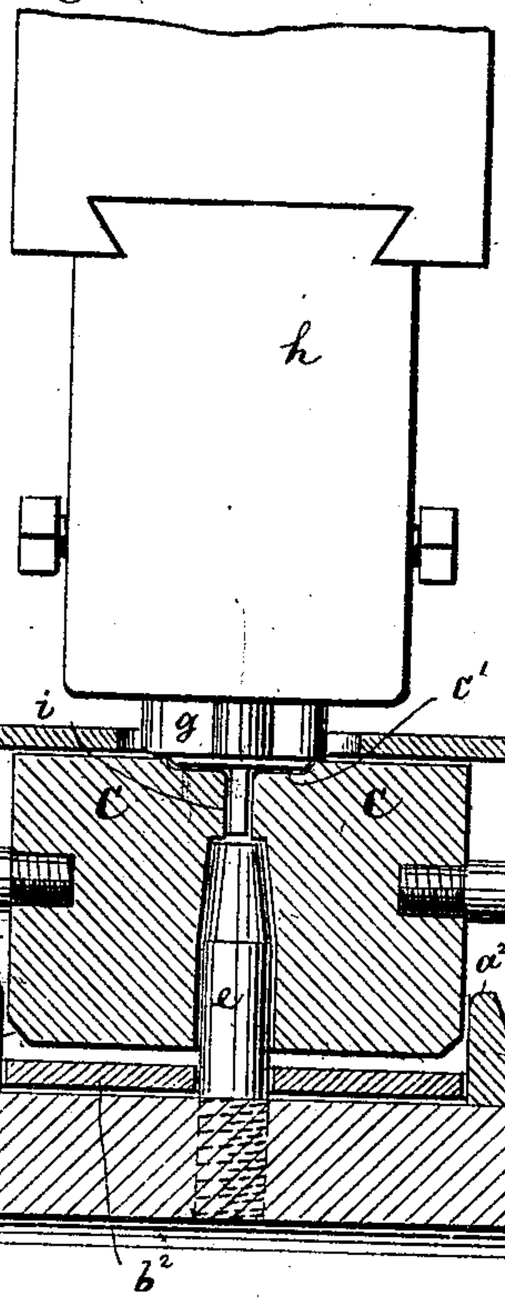


Fig: 4.

WITNESSES:
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ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

B. RION & H. DUPONT.

MACHINE FOR SHAPING ARTIFICIAL FLOWERS.

No. 496,899. Patented May 9, 1893.

Fig: 5.

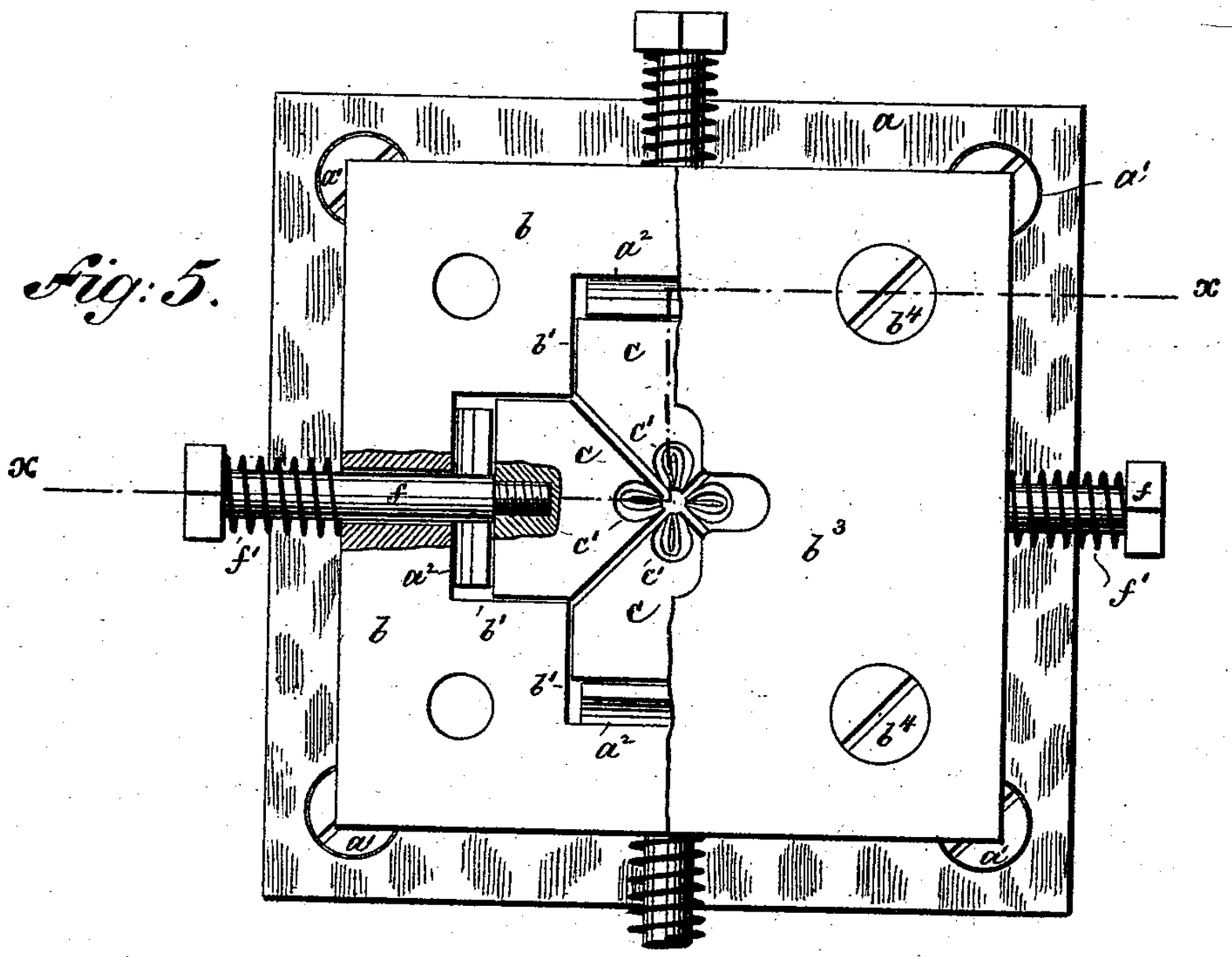
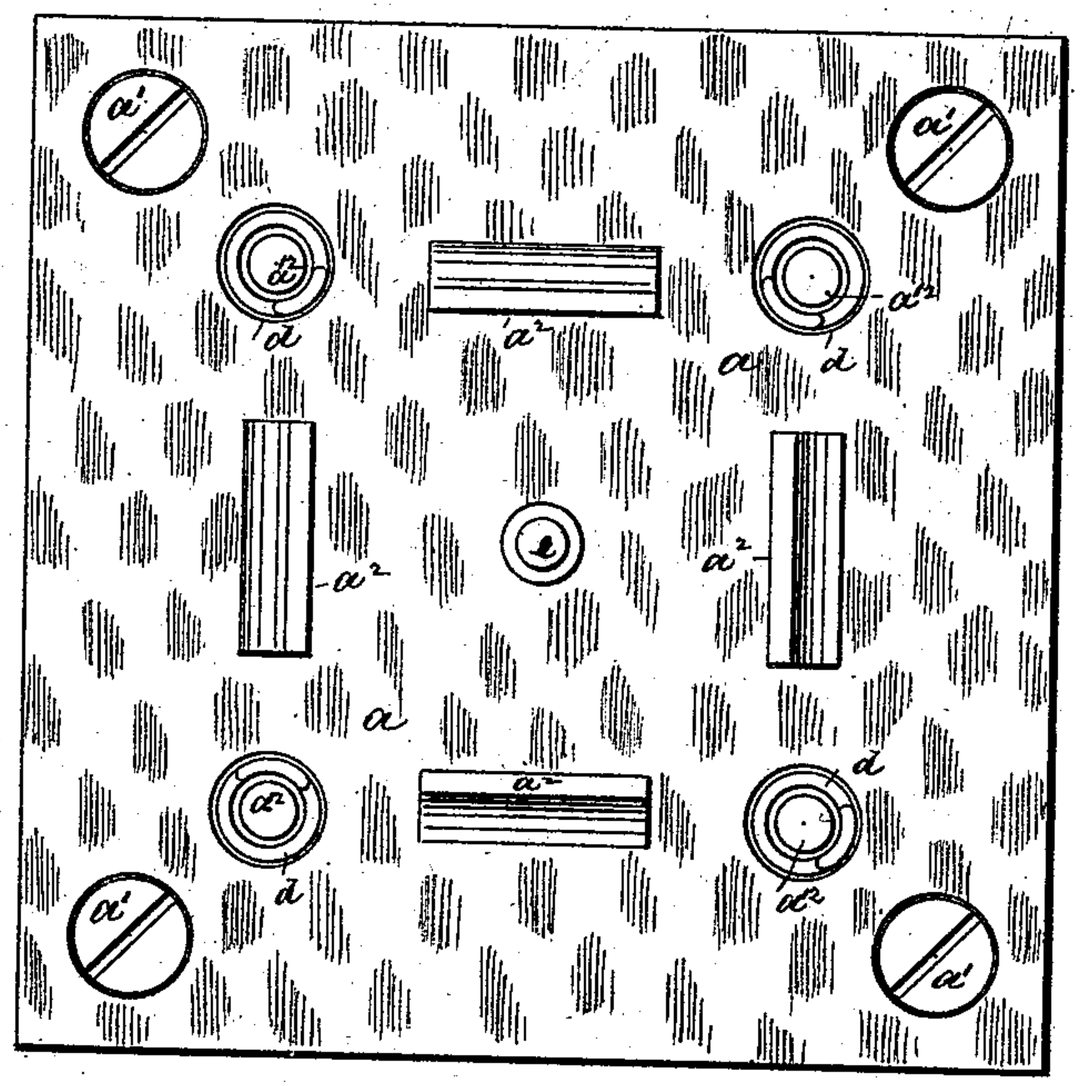


Fig: 6.



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UNITED STATES PATENT OFFICE.

BAPTIST RION AND HIPPOLYTE DUPONT, OF NEW YORK, N. Y.

MACHINE FOR SHAPING ARTIFICIAL FLOWERS.

SPECIFICATION forming part of Letters Patent No. 496,899, dated May 9, 1893.

Application filed July 7, 1892. Serial No. 439,248. (No model.)

To all whom it may concern:

Be it known that we, BAPTIST RION and HIPPOLYTE DUPONT, both of New York city, New York, have invented an Improved Machine for Shaping Artificial Flowers, of which the following is a specification.

This invention relates to a machine for shaping or striking up blanks into artificial flowers by stamping them into the required form between a set of dies.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings: Figure 1 is a vertical section of the machine on line *x*, *x*, Fig. 5, showing the upper die raised. Fig. 2 is a vertical section partly in side view with the upper die lowered. Fig. 3 is a detail of the blank to be operated upon; Fig. 4 a detail of the artificial flower when struck up; Fig. 5 a top view of the lower die partly in section and Fig. 6 a top view of the base plate.

The letter *a*, represents a base plate adapted to be screwed down upon a suitable support by screws *a'*. The base plate is provided with a set of upwardly projecting posts a^{12}, upon which there is free to slide a vertically movable frame *b*. This frame is adapted for the reception and support of a set of female dies *c*. Any number of such dies may be used, according to the kind of artificial flower to be produced, four being shown in the drawings. The dies *c*, are free to move laterally inward or outward in guide chambers or ways *b'*, of the frame *b*, and they have inclined sides, so that they all meet at the center (Fig. 5). At the bottom the dies *c*, are supported by a plate b^2, of frame *b*, and at the top they are partly covered by a centrally perforated face plate b^3, attached to frame *b*, by screws b^4. The negative impression of the shape to be produced is engraved at the inner corner *c'*, of each die, and may be formed partly upon the face of the die and partly along its edge, according to the particular design to be produced. The dies *c*, have a lateral motion within their ways *b'*, toward and away from each other, so that when approaching they form collectively a complete or continuous die between them, while when receding they permit the flower that has been shaped and which is very delicate, to be readily withdrawn.

The lateral motion is effected as follows: From the upper side of the base plate *a*, project upwardly a series of cams or lugs a^2, passing through perforations of the plate b^2, and engaging beveled edges c^2, of dies *c*. Normally the frame *b*, and dies *c*, are held above the upper edge of the cams a^2, by means of springs *d*, by which the posts a^{12}, are surrounded (Fig. 1). But when the frame *b*, is forced down (by the male die hereinafter described) to compress the springs, the dies *c*, will become engaged by the cams and will be forced together (Fig. 2) and toward a central vertically adjustable screw post *e*, projecting upwardly from base *a*, and fitting into notches formed in the upright edges *c'*, below the pattern proper.

Through the side of the frame *b*, there extends a set of screws *f*, surrounded by springs *f'*, and engaging the several dies *c*. As soon as pressure upon the frame *b*, is released, the springs *d*, will throw it upward so that the dies *c*, become disengaged from the cams. The springs *f'*, exerting constantly a lateral or outward pull on the dies will now be free to draw them apart so that the work just shaped can be readily withdrawn.

The upper or male die block *g*, is carried by a suitable box *h*, adapted to be attached to a hand or power press. This die is vertically adjustable by means of set screws *g'*, that hold it to the box and adapt it to be set to different kinds of work. The die *g*, is centrally perforated as at g^2, for the reception of a vertically movable pin or shaper *i*, that projects below the lower edge of die *g*. This pin is acted upon by a spring *j*, bearing upon its head and secured at its upper end to a nut *j'*, held down by a set screw j^2. By adjusting this set screw the tension of the spring and consequently the force with which the pin engages the work can be readily adjusted.

The operation of the machine will be readily understood. The dies being inserted to produce any desired form of flower from a blank such as for instance the blank A (Fig. 3) the male die is made to descend upon the female dies. This will cause the pin *i*, to gently depress the flower at the center so as to make

it cup shaped or concave, while the proper shape will at the same time be imparted to the corolla between the dies *c*, *g*. As has already been described, the descent of the male die will cause the female dies to become properly assembled, while at the elevation of the male die, the female dies will spread so that the work A′, may be withdrawn without any danger of becoming disfigured or torn.

What we claim is—

1. The combination of a set of laterally movable converging female dies with a central male die and with lugs that engage the edges of the female dies and assemble them upon the descent of the male die, substantially as specified.

2. The combination of a set of laterally and vertically movable converging female dies with a male die and with lugs that engage the edges of the female dies and assemble them upon their descent, substantially as specified.

3. The combination of a set of laterally and vertically movable converging female dies with lugs that engage the edges of the female dies and assemble them upon their descent and with springs that spread the female dies upon their ascent, substantially as specified.

4. The combination of a base plate having spring posts a^{12} with a vertically movable frame supported thereby, female dies inclosed by the frame and with lugs a^2 and springs f', for causing a converging and diverging motion of the dies, substantially as specified.

5. The combination of a set of laterally movable converging female dies with a post *e* surrounded by the dies and with a male die having a shaper above the post, substantially as specified.

6. The combination of a set of laterally movable lower dies with a perforated upper die, a pin projecting through the same and with a spring and set screw for adjusting the pressure of the pin, substantially as specified.

B. RION.
H. DUPONT.

Witnesses:
F. v. BRIESEN,
A. JONGHMANS.