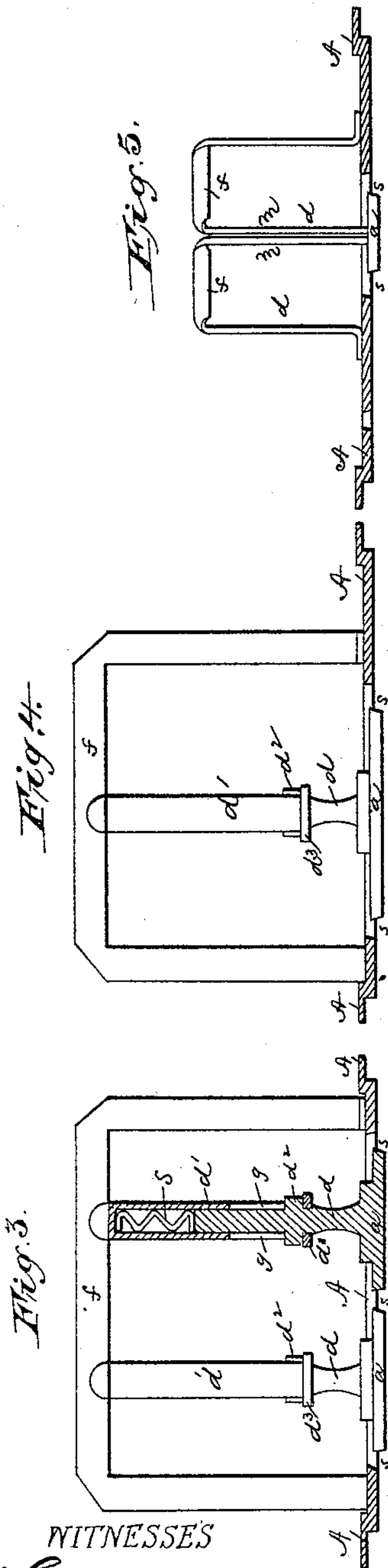


(No Model.)

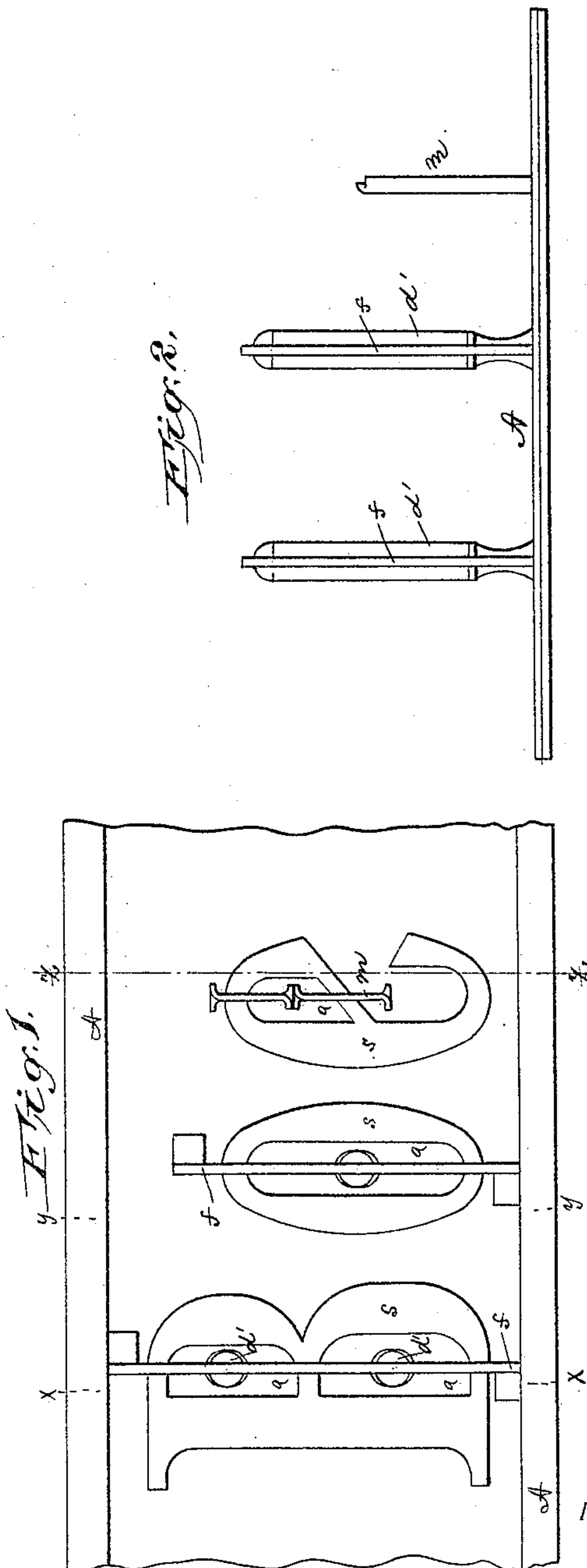
B. BAUGH.
STENCIL PLATE.

No. 438,221.

Patented Oct. 14, 1890.



WITNESSES
C. W. Benjamin
A. P. Vermilya



INVENTOR
BY Benjamin Baugh
A. P. Vermilya
his ATTORNEY

UNITED STATES PATENT OFFICE.

BENJAMIN BAUGH, OF BIRMINGHAM, ENGLAND.

STENCIL-PLATE.

SPECIFICATION forming part of Letters Patent No. 438,221, dated October 14, 1890.

Application filed June 14, 1889. Serial No. 314,194. (No model.) Patented in England June 1, 1888, No. 8,082.

To all whom it may concern:

Be it known that I, BENJAMIN BAUGH, a subject of the Queen of Great Britain and Ireland, and a resident of Birmingham, in the county of Warwick, England, have invented certain new and useful Improvements in Stencil-Plates, (for which I have already obtained English Letters Patent sealed June 1, 1888, numbered 8,082 of 1887,) of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which—

Figure 1 is an upper face view of a stencil-plate embodying said invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical cross-sectional view taken on line xx , Fig. 1, a portion of one stem being shown in section to more fully exhibit the device. Fig. 4 is a similar view on line yy , Fig. 1; and Fig. 5, another on zz , Fig. 1.

In stencil-plates as ordinarily constructed the center pieces used to form such letters as "B," "O," and "e" are usually held in place by thin strips of the plate connecting said pieces and that part of the plate forming the exterior boundaries of the letter, said strips being level with the main portion of the plate. Such arrangement of course prevents the formation of a perfect letter, as its lines are not continuous, being broken by reason of the connecting-strip aforesaid. This has sometimes been avoided by making the center pieces separate from the remainder of the plate, in which case they are placed and held in position during the operation of stenciling by the hand of the operator. It is obvious that under such circumstances the perfection of the letter or pattern depends largely upon the skill of said operator, as the center piece must be very accurately placed and held or the form of the pattern will be imperfect, and very carefully withdrawn or the edges will be broken, and the very purpose of a stencil-plate—accuracy without especial skill and rapidity of execution—is thereby defeated, especially in the formation of enamel letters or patterns where enamel or enamel-powder is to be superimposed upon a surface to represent a desired letter or pattern. Such was the condition of the art I sought to improve, and the apparatus shown is that by which the improvement

is attained; and my invention consists in uniting (either permanently or detachably) said center pieces and the main portions of the stencil-plate or the frame-work in which it is placed (that being for the time at least practically a part of said main plate) by a connection which is so raised where it crosses the space representing the letter or pattern that paint, powder, or other matter may be readily placed upon the surface to be stenciled at such points.

In the drawings, A represents the main stencil-plate, and a the center pieces aforesaid. They are connected (here rigidly) to uprights d , which in turn are connected to a frame f , extending from A upward and over the space s , representing the letter. Such frame preferably extends across the space to be occupied by the center piece and that representing the letter and down again to A, the purpose of such construction being to secure complete contact of the center piece and surface to be stenciled and evenness of pressure.

If desired, the upright d and frame f may be constructed in one piece, as shown in Fig. 5.

As the surfaces to be stenciled are not always perfectly regular, I provide elasticity in the connection between the center piece and its ultimate fastening to compensate for any such irregularity. In Fig. 5 this is effected by making the upright d and frame f of a piece of wire which will yield sufficiently to accomplish the object sought. As will be seen, I here employ two wires extending to the plate A in opposite directions, so that the pressure of a may be even and it may be held evenly in position. In Fig. 3 I attain the same object by securing to the frame f tubes d' , open at the bottom and vertically slotted for some distance, but not entirely to the bottom, on either side at g . The upper part of the uprights d are of a form to fit somewhat closely the interior of tubes d' and yet move freely up and down therein, while d^2 are pins or cross-pieces extending out from d through the slot g and limiting the movement of d within tubes d' by striking against one or the other ends of said slots or a collar d^3 , which may constitute the lower part of the tubes d' . Springs S are placed within the tubes d' above the upper ends of the uprights d , and their action

tends to hold the center pieces firmly in position upon the desired surface with the elastic pressure desired.

As shown, the frames *f* are firmly and fixedly
5 secured to the stencil-plate and the tubes to the frame, as well as the center pieces to the uprights; but it is obvious that they might each be detachable from the other and that the frames might be arranged to be secured
10 to the frame supporting the plate A, if one were used, as it would then be connected indirectly with said plate, the only essential requirement being that when the parts are in position the center pieces shall be held firmly
15 in definite relations to the position to be occupied by the main portion A of the plate. The frames *f* being usually made of wire or thin sheet metal are found not to objectionably interfere with coating the surface to be treated
20 completely with powder or other substance by sifting or other methods, while it is manifest that all parts of the surface to be covered by the pattern could be easily reached by a brush.

The manner of using a stencil-plate is too
25 well known to need description, and it is equally clear that with my apparatus even the least skilled are enabled to make perfect patterns and to do so much more rapidly than even

skilled labor could do if the center pieces were required to be placed and held by the
30 operator independently of the main plate.

For rapidity of handling it is preferable that the parts should all be permanently secured together.

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

1. The combination of the main portion of a stencil-plate, the center piece, an arm extending from one to the other over and at some distance from the space representing the
40 pattern, and a spring interposed between the point where the arm joins the center piece and that where it joins the main plate, substantially as set forth.

2. The combination of the main portion of
45 a stencil-plate, a frame extending above and across the space representing the pattern, a center piece, an upright extending upward from said center piece, and a spring interposed between said frame and said upright,
50 substantially as set forth.

BENJAMIN BAUGH.

Witnesses:

THOS. WM. HARDS,
WILLIAM KIBBY.