Feb. 7, 1933. O. P. WOLFE, JR 1,896,877

STENCIL DEVICE

Filed Jan. 11, 1932

Fig. 1.

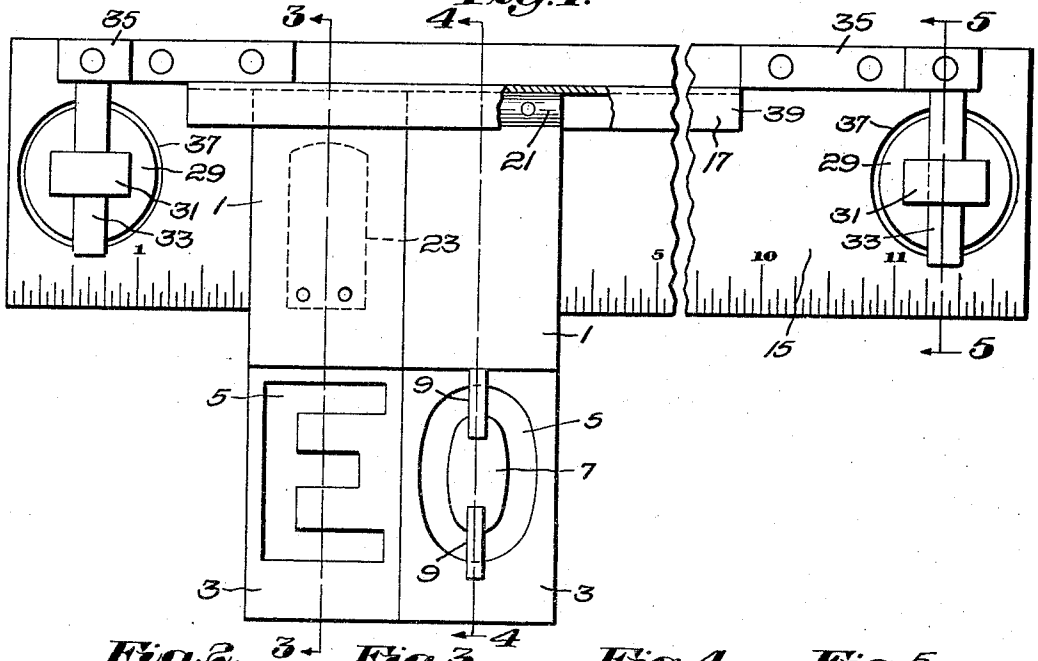


Fig. 2.

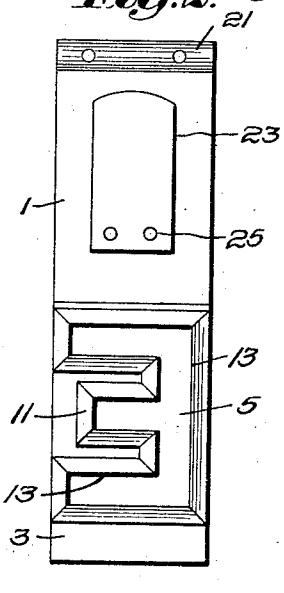


Fig. 3.

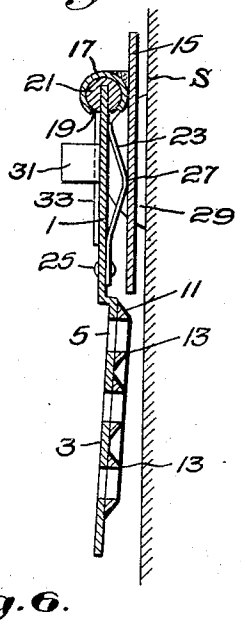


Fig. 4.

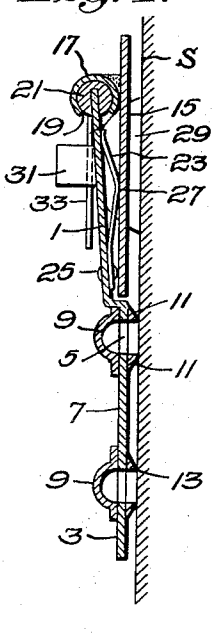


Fig. 5.

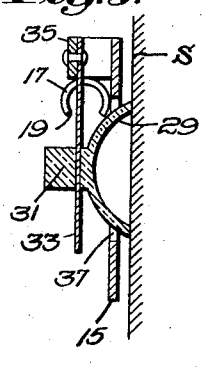
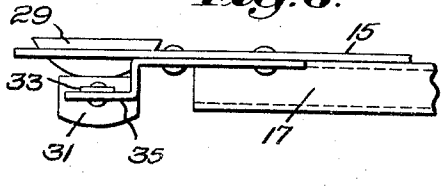


Fig. 6.



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UNITED STATES PATENT OFFICE

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STENCIL DEVICE

Application filed January 11, 1932. Serial No. 585,961.

My invention, which relates to stencil devices, and has among its objects the provision of means whereby a character with a sharply defined edge may be readily formed on the surface to be stenciled, will be best understood from the following description when read in the light of the accompanying drawing of an embodiment of the invention selected for illustrative purposes, the scope of which invention will be more particularly pointed out in the appended claims.

In the drawing:—

Fig. 1 is a plan of one form of a stencil device constructed according to the invention;

Fig. 2 is a plan of the under side of one of the stencils;

Figs. 3, 4 and 5 are respectively sections on the lines 3—3, 4—4 and 5—5 of Fig. 1; and

Fig. 6 is an edge view of the support as viewed from the top of Fig. 1.

Referring to the drawing, each stencil in the submitted embodiment of the invention comprises a plate-like member 1 having an offset portion 3 disposed at a slight angle to the remaining portion of the member. As shown, the offset portions 3 are formed with openings 5 of shape corresponding to that of the characters to be formed by the stenciling operation, said characters herein exemplified by the letters E and O.

Conveniently, the stencil for the letter O may be formed by cutting out the plate to correspond to the outer periphery of this letter, while at the center of this opening thus formed is placed a plate 7 the periphery of which corresponds to the inner periphery of the letter, this latter plate being connected to the surrounding portion 3 of the plate 1 by suitable bridge members 9 at the outer side of the stencil, so that the letter O formed by application of paint or varnish to the surface to be stenciled will consist of a continuous line. Other letters having a closed line, such as the letters B, R, P, etc., may be similarly formed.

Herein, surrounding the periphery of the opening 5 of each stencil is a bead 11 of resilient non-absorbent material, such as rubber, which as shown is beveled to present a line like edge 13 for contact with the surface S on which the stenciled characters are to be formed.

As shown, the device comprises a support to which the stencils may be readily attached and detached by means providing for swinging movement of the stencils toward and away from the surface S. As shown, this support comprises a plate 15 carrying near one edge thereof a longitudinally extending member 17 which is in the form of a tube having at one side thereof a longitudinally extending slot 19. As shown, each stencil at one end thereof is provided with a transversely extending cylindrical bead 21 adapted to be received within the tube 17 with the plate portion 1 of the stencil projecting through the slot 19, the latter allowing the stencils to swing toward and away from the surface S. As illustrated, each stencil carries a leaf spring 23 secured at one end thereof by suitable rivets 25 to the plate 1, the spring being bent to form a portion 27 for contacting with the supporting plate 15. These springs act resiliently to urge the stencils away from the surface S so as normally to hold the edges 13 of the beads 11 out of contact with said surface, as shown in Fig. 3. However, by pressing on the stencils, said edges may be brought into contact with said surface as shown in Fig. 4, in which position a brush containing paint, varnish, or other substance may be applied to the opening of the stencil to form on said surface the appropriate character, whereupon releasing the pressure of the hand from the stencil will cause it to move automatically from the position shown by Fig. 4 to the position shown by Fig. 3.

Herein, for securing the support to a surface as, for example, a window pane, the plate 15 carries suction disks or cups 29 of suitable material such as flexible rubber, these disks having suitable heads 31 secured to intermediate portions of spring levers 33, the latter at one of their ends being carried by brackets 35 secured to the plate. As illustrated, two such suction cups are provided, these being located adjacent the opposite ends respectively of the plate 15, which latter

is formed with openings 37 through which the cups extend. By moistening the cups and pressing the heads 31 toward the surface to which the support is to be secured the plate 15 will be firmly secured to said surface in slightly spaced relation therewith. For detaching the cups from this surface, conveniently the heads 31 may be pressed toward said surface and at the same time the levers 33 pulled away from said surface.

It will be understood that suitable stencils may be inserted in the tubular holder 17 to form the legend or the like to be stenciled, the open end 39 of the tubular holder conveniently being spaced from the adjacent suction cup a sufficient distance to allow the stencils to be inserted through said end, while the edge of the plate 15 opposite the holder 17 conveniently may be graduated to enable the stencils to be properly placed and spaced.

The provision of the line like edges 13 on the beads surrounding the openings in the stencils it has been found permits the formation of a character with a sharply defined edge, the possibility of blurring the edge by transverse movement of the stencil when lifting it from the surface on which the characters are formed being insured against by provision of a stencil which automatically moves the line like edges 13 out of contact with said surface upon removal of pressure from the stencil.

It will be understood that wide deviations may be made from the form of the invention herein illustrated within the scope of the appended claims.

I claim:

1. A stencil having means forming an opening bordered by a bead of resilient non-absorbent material having a line like edge conforming to the outline of the character to be stenciled.

2. A device of the character described having, in combination, a stencil having means forming an opening bordered by a bead of resilient non-absorbent material having a line like edge conforming to the outline of the character to be stenciled, and means for resiliently supporting said stencil for movement of said edge toward and away from the surface on which said character is to be formed.

3. In a device of the character described, a stencil comprising a plate-like part formed with an opening corresponding to the character to be stenciled, a bead of resilient non-absorbent material carried by said plate-like part and surrounding said opening, said bead formed with a line like edge for contacting with the surface on which said character is to be formed.

4. In a device of the character described, a stencil comprising a plate-like part formed with an opening corresponding to the character to be stenciled, a bead of resilient non-absorbent material carried by said plate-like part and surrounding said opening, said bead formed with a line like edge for contacting with the surface on which said character is to be formed, and means for resiliently supporting said plate-like part for movement toward and away from said surface operative to urge said edge of said bead normally out of contact with said surface.

5. In a device of the character described, a stencil comprising a plate-like part formed with an opening corresponding to the character to be stenciled, a bead of resilient non-absorbent material carried by said plate-like part and surrounding said opening, said bead formed with a line like edge for contacting with the surface on which said character is to be formed, a support, means for hingedly connecting said plate-like part to said support for movement toward and away from said surface, and resilient means cooperating with said plate-like part operative to urge said edge of said bead normally out of contact with said surface.

6. In a device of the character described, a stencil comprising a plate-like part formed with an opening corresponding to the character to be stenciled, a bead of resilient non-absorbent material carried by said plate-like part and surrounding said opening, said bead formed with a line like edge for contacting with the surface on which said character is to be formed, a support, readily detachable means for hingedly connecting said plate-like part to said support for movement toward and away from said surface, and resilient means cooperating with said plate-like part operative to urge said edge of said bead normally out of contact with said surface.

7. In a device of the character described, a stencil comprising a plate-like part formed with an opening corresponding to the character to be stenciled, a bead of resilient non-absorbent material carried by said plate-like part and surrounding said opening, said bead formed with a line like edge for contacting with the surface on which said character is to be formed, a support, suction disks for securing said support to said surface, said plate-like part being carried by said support for movement toward and away from said surface, and resilient means cooperating with said plate-like part operative to urge said edge of said bead normally out of contact with said surface.

8. A device of the character described having, in combination, a support for a plurality of stencils each of which latter are mounted on said support for movement independently of each other toward and away from a surface to be stenciled, said stencils each having means forming line like edge

portions bordering the stencil character, and means acting on said stencils resiliently urging said edge portions thereof out of contact with said surface.

9. A device of the character described having, in combination, a support, a plurality of stencils, said support and stencils having cooperating portions for mounting said stencils on said support in readily detachable relation and for movement of said stencils independently of each other toward and away from a surface to be stenciled, and spring means for each stencil for resiliently urging it normally out of contact with said surface.

10. A device of the character described having, in combination, a support, a plurality of stencils, said support and stencils having cooperating portions for mounting said stencils on said support in readily detachable relation and for swinging movement of said stencils independently of each other toward and away from a surface to be stenciled, said stencils each carrying a spring for contacting with said support for normally urging said stencil out of contact with said surface.

In testimony whereof, I have signed my name to this specification.

OLIVER P. WOLFE, JR.