Apr. 17, 1923. 1,451,817

G. J. EVANS

STENCIL

Filed Nov. 20, 1920

Fig. 1.

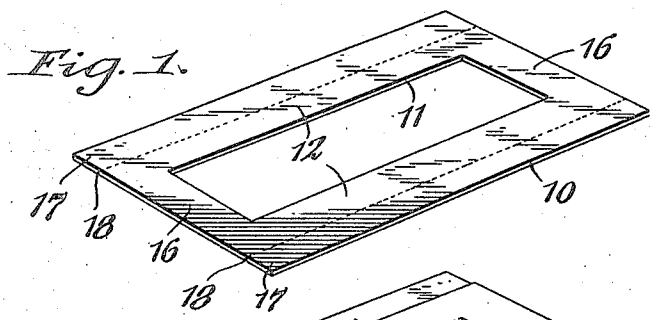


Fig. 2.

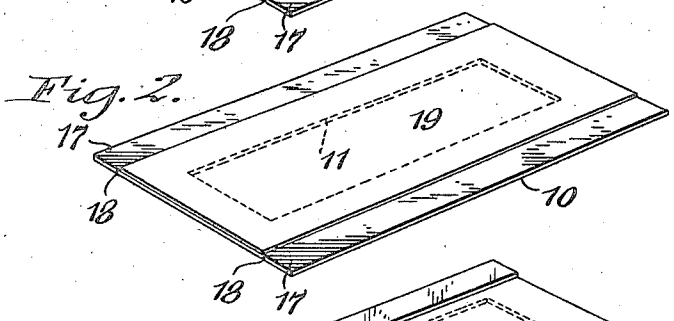


Fig. 3.

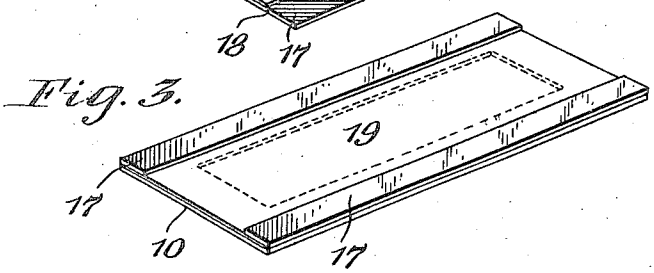


Fig. 4.

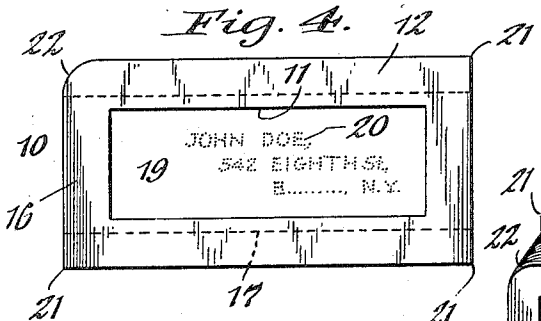
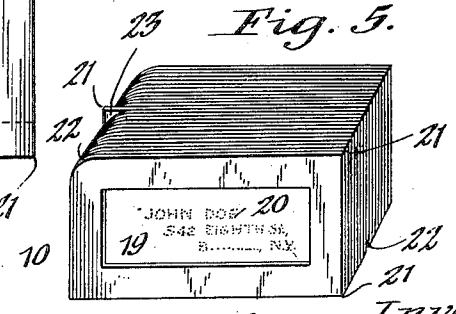


Fig. 5.



Inventor;
Guy J. Evans
by Geyer & Tolle
Attorneys.

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UNITED STATES PATENT OFFICE.

GUY J. EVANS, OF BUFFALO, NEW YORK.

STENCIL.

Application filed November 20, 1920. Serial No. 425,360.

To all whom it may concern:

Be it known that I, GUY J. EVANS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Stencils, of which the following is a specification.

This invention relates to a stencil and more particularly to a stencil which is used for addressing letters, cards or the like by the use of an addressing machine which automatically produces impressions of a plurality of stencils successively on such articles.

One of the objects of this invention is to produce a stencil of this character of less material than heretofore and thereby reduce the cost of the same.

Another object of this invention is to provide a stencil which will not be warped or bent out of shape by the action of the glue or cement used in securing the parts of the same together.

A further object of this invention is to so construct the stencil that the same when stacked in an addressing machine and fed one at a time to the printing position will not become interlocked or hooked together and interfere with the free movement of the stencils.

A still further object of this invention is to so construct the same that when a plurality of the same are assembled in a row it is possible to readily detect any stencils which have been improperly placed in the row and thus avoid errors in producing an address from the same on an article.

In the accompanying drawings:

Figure 1 is a perspective view of the stencil frame and its flanges preparatory to assembling the same with the stencilizable sheet. Figure 2 is a similar view showing the frame and its flanges assembled with the stencilizable sheet preparatory to fastening the same together. Figure 3 is a similar view showing the stencil ready for receiving the printing perforations. Figure 4 is a front elevation of the completed stencil provided with printing perforations in the stencilizable sheet and also having one of its corners blunted so as to permit of identifying the correctness of its position when assembled in rows for stowing the same away or for other purposes. Figure 5 is a similar view of a row of stencils showing the manner in which an incorrectly placed stencil therein may be detected and thus enable the attendant to adjust the same before filing away the group of stencils or using the same in an addressing machine and thus avoid improper addressing or printing by the use of the same.

Similar characters of reference refer to like parts throughout the several views.

10 represents the frame of the stencil which may be constructed of any suitable material but preferably of comparatively strong, flexible paper so that the same can be bent around a curved or round platen of a typewriter for cutting an address or other matter in the stencil sheet which is subsequently mounted on the frame, and also permit of feeding the same in an addressing machine whereby the printed impression may be successively produced on articles from a plurality of stencils. This frame is preferably of oblong and rectangular form and provided with a printing opening 11 which is bounded by two longitudinal side bars 12 and two transverse end bars 16 connecting the corresponding ends of the side bars.

Along the outer edge of its longitudinal bars the frame is provided with two spacing and retaining flaps or flanges 17, 17, which are preferably formed integrally with the frame of the same sheet of material while the latter is in a flat condition. These flanges are bent or folded inwardly over the frame so that they face the same side thereof, this bending or folding operation being facilitated by first scoring or grooving the opposite side of the blank from which the frame and flanges are formed along the lines on which the flanges are folded relatively to the frame, the scores being shown at 18 in Figs. 1 and 2.

19 represents the stencil sheet which may consist of any suitable thin flexible material in which printing perforations may be produced, such for instance, as the stencilizable paper commonly used for this purpose. This stencil sheet extends over the printing opening of the frame and is secured with one of its sides by glue, or other cement to that side of the frame which faces said retaining and spacing flanges while the opposite side of this sheet is secured by glue or other cement along its longitudinal edges to the inner sides of said flanges which face the frame. The stencil sheet is thus secured with its transverse edge portions to the

frame while its longitudinal edge portions are secured between the longitudinal bars of the frame and said retaining flanges. The stencil sheet may be provided with address or printing perforations 20 either before the same is assembled with the frame and flanges or afterwards, but preferably after such assemblage inasmuch as this permits of keeping a lot of previously made stencils in stock ready to receive the printing perforations.

In the absence of the retaining and spacing flanges the stencil frame is liable to be warped, bent or curled by the action of the glue or cement whereby the stencil sheet is secured to the frame thus not only interfering with the stacking or piling of the stencils for use in a printing machine as well as packing the same for stowage and transportation but also preventing the same from being used efficiently, if at all, in a printing machine. By providing the frame and stencil sheet with the retaining flanges any tendency of the frame to curl or bend in either direction by the pulling or pushing action of the glue or cement which connects the frame and the sheet is resisted by these flanges causing the stencil as a whole to be held in a flat or straight condition in which it is best suited for stacking or use in a printing apparatus. By constructing the retaining flanges or flaps integrally from the same sheet of material the grain of the longitudinal bars of the frame and that in the flanges trends in different directions and thus cross one another, thereby causing any tensile or compression stresses set up in the frame and the flanges due to the action of the glue to off-set or neutralize each other and thus keep the stencil as a whole in a flat condition. This arrangement of the grain in the frame and flanges is shown by the shade lines in Figs. 1, 2 and 3.

By making the frame and flanges integral there is no waste of material and a substantial reduction in cost of manufacture is effected. Furthermore, the formation of the flanges or spacers on the frame provide the necessary thickness which the stencil must have in order to permit the same to work properly in the apparatus which feeds the stencils one at a time from a stack to the printing position.

In the completed stencil the inner opposing edges of the retaining flanges or flaps are separated from each other throughout the length of the stencil by an intervening longitudinal gap inasmuch as there is only a single thickness of material in the frame along its cross bars. This is advantageous when feeding the stencils one at a time lengthwise from a stack of stencils inasmuch as the absence of any added material of substantial thickness on the cross bars of the frame avoids the formation of any transverse shoulders thereon which would be liable to cause adjacent stencils to interlock or hook one on to another and thus interfere with the proper feeding of the stencils lengthwise of a printing apparatus.

In assembling a plurality of such stencils in a row preparatory to stowing the same or piling the same in a machine ready for use there is liability of transposing the same either end for end or side for side so that a wrong impression of the same is produced when subsequently used in the machine. To avoid this, identifying means are provided on the stencil which will enable the attendant to detect the presence of an improperly placed stencil in a row. This is preferably accomplished by leaving three of the corners of the stencil full or square, or substantially so, as shown at 21 in Figs. 4 and 5, while the fourth corner is made blunt by rounding or otherwise reducing the same as shown at 22 in the same figures.

Assuming that this blunt or rounded corner of the several stencils is properly at the upper left corner thereof, as shown in Fig. 4, and a plurality of such stencils are arranged in a row with one or more of the same upside down, the improperly positioned stencils can be detected instantly, as clearly appears in Fig. 5 in which all of the stencils excepting the one 23 near the middle of the row has been inverted and has its full corner in line with the rounded or blunt corners of the remaining stencils, thus enabling the attendant to make the necessary correction or alinement of the stencils to permit of using the same properly and expeditiously.

I claim as my invention:

1. A stencil comprising a frame having a printing opening, a stencil sheet secured to one side of said frame and extending over the opening therein, and flanges arranged on the longitudinal edges of the frame and secured to that side of the stencil sheet opposite to that on which the latter is engaged by said frame, the space between the opposing flanges being unobstructed throughout the length of the same.

2. A stencil comprising a paper frame having a printing opening, and a stencil sheet secured on one side to one side of said frame and extending over the opening thereof, said frame being provided on its longitudinal edges with integral flanges which are folded and secured to the opposite side of said stencil sheet, the space between the opposing flanges being unobstructed throughout the length of the same.

3. A stencil comprising a paper frame having a printing opening and integral folded flanges at its opposite longitudinal edges, and a stencil sheet extending over the opening in said frame and secured on one of its sides by cement to one side of said frame while the longitudinal edge portions of its opposite side are secured to the inner

sides of said flanges by cement, the space between the opposing flanges being unobstructed throughout the length of the same.

4. A stencil comprising a frame having longitudinal bars and cross bars forming a printing opening, a stencil sheet secured with one of its sides to one side of said frame and extending over the opening therein, and longitudinal flanges secured to the longitudinal edge portions of the opposite side of said sheet and separated from each other by a gap throughout the length of the stencil, the space between the opposing flanges being unobstructed throughout the length of the same.

GUY J. EVANS.