May 16, 1933. H. P. ELLIOTT 1,909,913

STENCIL BLANK WITH REMOVABLE BACKING SHEET

Filed April 11, 1932

FIG. 1.

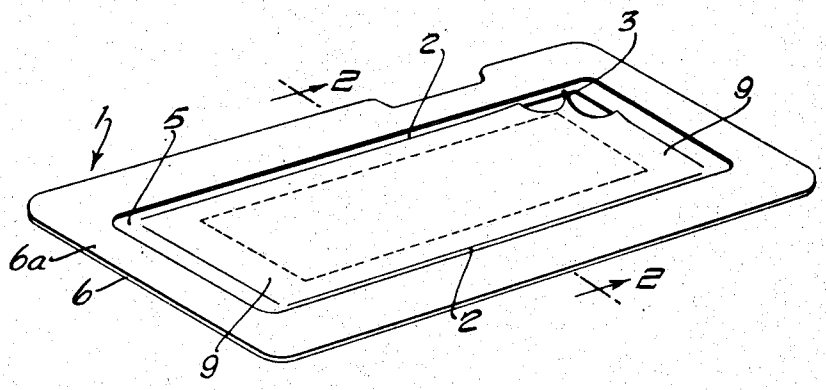


FIG. 3.

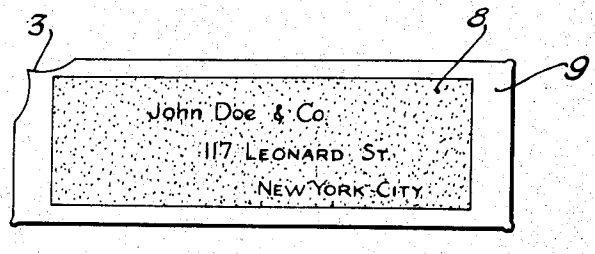
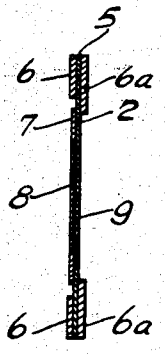


FIG. 2.



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UNITED STATES PATENT OFFICE

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STENCIL BLANK WITH REMOVABLE BACKING SHEET

Application filed April 11, 1932. Serial No. 604,452.

This invention relates generally to blanks for making stencil cards such as are commonly used in addressing machines, but more specifically is designed to produce an improvement on the type of such stencil blanks shown in Patent No. 1,481,834, granted to Sterling Elliott January 29, 1924, or Patent No. 1,068,578 granted to Harmon P. Elliott July 29, 1913, in that a removable panel or backing sheet is retained in said blank until after the stencil has been formed, though some features of the invention might be used with other stencilizable structures.

A further improvement involves the use of a facing of finely divided carbon on any form of removable backing sheet constituting a part of a stencil blank. The best form of construction embodying my invention at present known to me is illustrated in the accompanying drawing in which

Fig. 1 is a perspective view of such a stencil blank looking at the back of the same.

Fig. 2 is a cross section on line 2—2 of Fig. 1, and

Fig. 3 is a face view of the removed backing section, or panel.

Throughout the drawing like reference characters indicate like parts.

The card blank shown in Fig. 1 has the usual rectangular frame of stiff cardboard or bristol board, generally indicated at 1, and composed of the upper rectangular frame section 6, and the lower, slightly wider frame section 6*a*, between which frame sections is a center strip 5 of reasonably stiff paper, a part of which has heretofore been cut out to form a rectangular panel opening, the edges of which cut paper slightly overhang the inner edges of the wider frame section 6*a*. The sheet of coated Yoshino paper 7 in which the stencil is to be cut has been thereafter pasted to the inner edges of the partly cutaway strip 5, all as clearly shown in the prior patents hereinbefore mentioned.

According to the present invention the center strip of paper 5 is not completely cut out to form such panel opening as in the patent, but is only scored or perforated along lines 2, 2, adjacent the inner edges of the main frame 1 so that the panel so delimited can be easily torn out later. Preferably a portion of the strip of paper forming such panel is, however, cut out bodily at one corner of the panel to form the tab 3 which can easily be turned up by the finger nail of the operator into the position shown in Fig. 1, and then grasped for the purpose of tearing out the panel 9, marked out by the scoring 2, 2.

Over an area of said removable panel portion on that one of its faces adjacent the coated stencil paper 7, there is applied, according to the present invention, a substantial layer of finely divided carbon 8 substantially such as is employed in making carbon sheets for use in producing duplicate copies on typewriting machines. This carbon may either be applied in a viscous form by a suitable roller to a strip of the paper 5 from which the cards are later made in suitable machines, and allowed to dry, or it may be applied in such form in any convenient way to the partly made blank, i. e. before the Yoshino sheet 7 is pasted thereon, or it may be attached to the paper 5 in the form of little sheets of very thin carbon paper, or as a thin ribbon of such carbon paper which is fed to the machine in the process of making the initial portion of the stencil blank, before such Yoshino paper is added.

In any case the carbon surfaced area of the paper 5 underlies the area of the coated paper 7 in which the name and address is to be cut by type pressure in the usual way, and, as a result, particles of the carbon will then become pressed into or entangled between the fibres of the Yoshino paper exposed by type pressure in forming the stencil legend, and thereby render said legend much more legible.

After the stencil legends have been so written the structure so produced may be put in an addressing machine in a stack and run through the machine rapidly to produce the initial customary inking. The ink then enters the exposed fibres of the Yoshino paper and further increases the legibility of the stencil and also puts it in a condition

such that a satisfactory print can be taken from it in subsequent use.

Thereafter the panel 9 of the backing sheet is torn off and thrown away and the completed stencil card is ready for use for addressing purposes.

The advantages of the invention are numerous, both in saving labor in the making of the stencil and in improving the product. The ordinary stencil blank such as shown in the Elliott Patent No. 1,481,834 has to be provided with a separate backing sheet when it is cut on the typewriting machine in the usual way. Usually some form of a supporting frame for such backing sheet has to be provided when the stencil is cut on the typewriter and, in any case, the adjustment of the backing sheet between each inking operation requires time and the close attention of the operator. All of this trouble is eliminated by leaving a suitable removable panel of backing paper on the blank itself, in accordance with the present invention. Furthermore a fresh panel of this backing paper is automatically presented with each blank as it is cut on the typewriting machine, whereas in the old system each backing sheet was sometimes used for a series of operations, becoming less satisfactory as the operations proceeded because of accumulated and overlapping indentations formed therein.

In the prior practice the initial inking of the stencils, which is always done soon after they are made, has been accomplished by running them one at a time through an addressing machine, while the operator held a sheet of paper in the printing zone under each stencil as it arrived at the inking location, stopping and starting the machine for each individual inking operation. This sheet of paper had to be shifted after each stencil was inked so that the ink which had been deposited on the face of the sheet by that operation would not come under the next stencil to be inked, because if such overlapping occurred a portion of the ink on the backing sheet would then be transferred to the back of the said next stencil card, and when that card was later used to address an envelope a phantom address would appear adjacent to, and possibly running into, the proper name and address then being stencilled on such envelope or other mail matter. This is technically known as "offsetting". By the use of the present invention, the services, or even the attention of an operator are not needed during this preliminary inking operating. He simply loads the machine up with a stack of the freshly cut stencils and they are run through the inking zone as rapidly as the machine can drive them, while the operator can be doing other work, and of course all "offsetting" is avoided.

A minor saving is effected because no additional paper is required to be held under each stencil during each inking operation. The removable backing panel in the present invention is merely a piece of paper which would otherwise be cut out and thrown away at an earlier stage in the manufacture of the stencil blank.

After cutting the stencil on the typewriting machine when using the ordinary backing sheet, the legend is hardly legible, and consequently it is a difficult matter to proofread such stencils, but if the backing panel of the present invention is faced with a finely divided carbon, as above described, the fixation of the black carbon particles between the fibres of the Yoshino paper in the stencil cutting operation renders it perfectly legible for proof-reading purposes.

Another advantage results from the fact that if separate, loose, sheets are used for backing purposes in cutting stencils, they will buckle into the indentations in a badly dented typewriting machine roller under the blows of the type and thereby produce a blurred stencil, whereas in the present invention the backing panel 9 is under considerable tension from the surrounding frame 1, and is necessarily in an initially smooth condition as the result of the process of manufacture of the blank. As a result it stands up like a drumhead over a dented platen roller in the stencil cutting operation and produces a sharply defined and evenly cut stencil.

Various changes in the minor features of the above described construction could be made without departing from the principle of the invention as above described and substantially defined in the appended claims.

The tab 3 might be made of shapes and sizes different from that shown, but preferably it should not in any case extend into that delimited area of sheet 5 to which the carbon coating 8 is applied, because if any of the carbon appears on the surface of the tab, the operator's fingers will become blackened thereby when grasping the tab. So long as this is avoided the tab may be increased in size to any desired degree, even so that it will extend clear across the end of the panel 9.

Having described my invention, I claim:

1. In a card for making stencils comprising a rectangular frame, and a sheet supported thereby composed of material adapted to be acted on by type pressure to form a stencil, the combination, with said above described structure, of a backing panel for said sheet temporarily attached to said structure so as to be easily removable therefrom, said backing panel having an attached tab adapted to be grasped by the user in such operation of its removal.

2. A stencil blank comprising a relatively stiff rectangular frame, a sheet of coated

Yoshino paper, and a backing panel attached to said frame by relatively weakened sections extending substantially all the way around its periphery, said panel having an integral tab at one corner adapted to be grasped by the operator in the act of tearing said panel from said frame.

3. As a new article of manufacture a stencil blank comprising a frame of cardboard, a sheet of coated Yoshino paper attached to said frame and a panel of backing paper held to both along the inner edges of said frame by partly severed fabric, together with a layer of finely divided coloring matter confined between limited areas of said panel and sheet and underlying the area of the latter which is to be stencilized.

4. An article of manufacture such as defined in claim 3 in which said colored particles adhere only to said panel.

5. An article of manufacture such as defined in claim 3 in which one part of said panel free from coloring matter has been cut away sufficiently to form a tab which may be grasped by the user in effecting the removal of said panel.

6. An article of manufacture such as defined in claim 3 in which a part of said panel adjacent a line of severance in said fabric is devoid of coloring matter and adapted to be flexed in removing said panel.

7. A stencil blank comprising a relatively stiff rectangular frame, a sheet of coated Yoshino paper, and a backing panel attached to said frame by relatively weakened sections extending substantially all the way around its periphery, said panel having a tab adapted to be grasped by the operator in the act of tearing said panel from said frame.

8. As a new article of manufacture, a stencil blank comprising a rectangular frame of stiff material, a sheet of stencilizable material stretched across the opening in said frame and attached thereto, and a sheet of tougher fabric also stretched across said frame and attached thereto back of said stencilizable sheet, said backing sheet having a panel portion partly cut away from and partly attached to the surrounding border portions thereof which are attached to said frame, and said panel portion underlying the area of said first-mentioned sheet which is to be stencilized; whereby said panel may serve as a backing sheet during the cutting and initial inking of a stencil being formed from said blank, but can thereafter be easily torn out before said stencil is put to use.

9. As a new article of manufacture, a stencil blank comprising a sheet of paper sandwiched between, and cemented to, two similar rectangular frame sections of stiffer material, and a sheet of stencilizable paper cemented to said first mentioned sheet along lines adjacent and parallel to the inner edges of said frame, the area of said first-mentioned sheet which lies within said lines of cement being partially severed from said surrounding cemented portions; whereby the partly severed panel so formed will be held in place to serve as a backing sheet during the cutting and initial inking of said stencilizable paper in producing a stencil therefrom, but thereafter said panel may be easily removed to expose such stencil area.

Signed at Cambridge in the county of Middlesex and State of Massachusetts this 7th day of April A. D. 1932.

HARMON P. ELLIOTT.