

Dec. 13, 1938.

A. E. SCHUTTE

2,140,483

STENCIL

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Fig. 1.

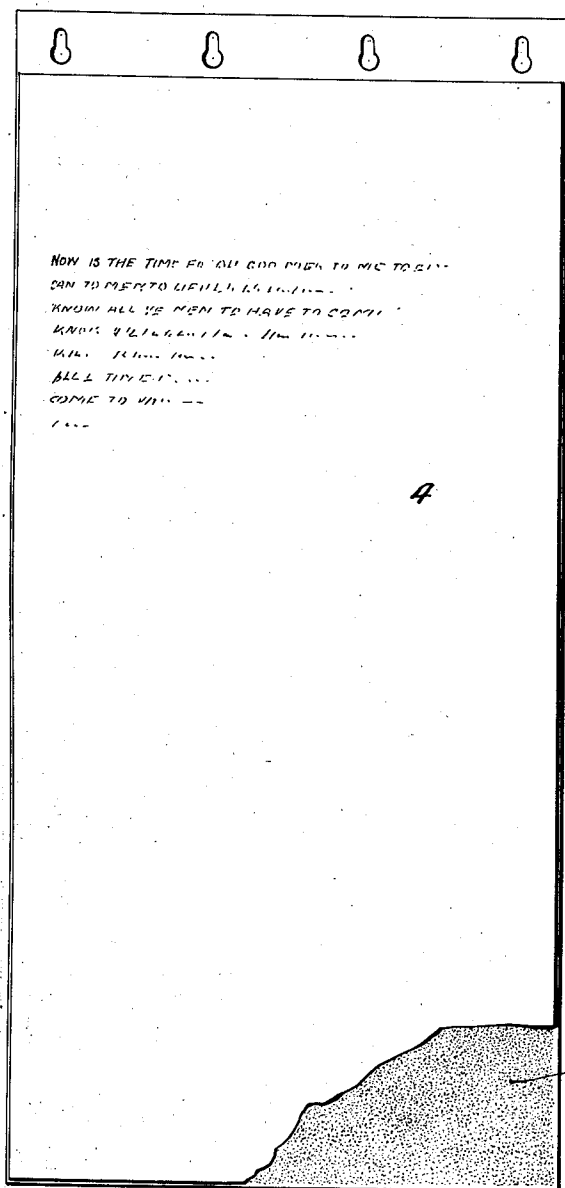


Fig. 2.

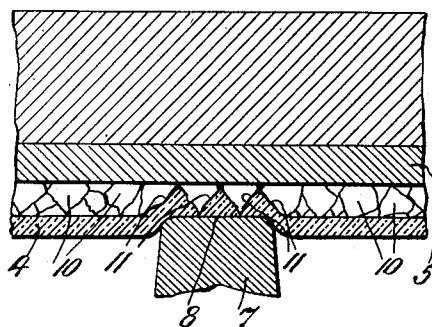
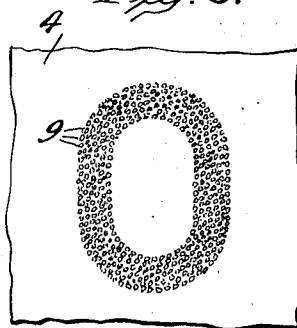


Fig. 3.



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STENCIL

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3 Claims. (Cl. 101—127)

This invention relates to the art of duplicating, and provides an improved stencil.

In the past, stencils have commonly been made through perforating or cutting holes in a sheet which had been treated so that it was generally impervious to ink, or by expressing parts of a fluent ink-impervious coating or impregnating composition which had been applied to an open, lace-like tissue. A particular object of my invention is the production of a stencil, made through perforating an ink-impervious film, which is cheap and durable and not affected by climatic conditions.

I have discovered that such a stencil may be made from a sheet of cellulosic material of the type commonly known as "Cellophane." Such a sheet is a tough, flexible, homogeneous, semi-plastic, non-fibrous film which is impervious to, and not injuriously affected by, the inks commonly used in duplicating. In accordance with my invention, local areas of such a sheet are forced, as by the blow of the type of a typewriter, against a surface having closely spaced, hard, fine projections. That portion of the film which is struck by a type is indented over an area corresponding to the face of the type, and is offset from the plane of the film. The projections from the surface against which the film is struck provide that offset portion with a plurality of minute perforations through which ink may pass.

A specific embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a plan view of a stencil made in accordance with my invention, broken away in part to show the sandpaper backing;

Fig. 2 is an enlarged section illustrating the formation of a character in the stencil-sheet when it is struck by the face of the type; and

Fig. 3 is an enlarged view of a character formed in the stencil-sheet as illustrated in Fig. 2.

A convenient method of making a stencil embodying my invention consists in placing a sheet 4 of non-fibrous cellulosic plastic of the type commonly marketed under the name "Cellophane" over a sheet of fine sandpaper 5 and typing on it in a typewriter against the sandpaper 5.

Each portion of the sheet 4 which is struck by a type-face 7 is indented to form a local portion 8, which corresponds in area to the face

7 of the type, offset from the plane of the film 4 and a plurality of minute perforations 9 are formed in that offset area by the projecting granules 10 of sand. The face of the resultant stencil has local embossed areas 11, which correspond to the indentations 8 caused by the type 7, and which have a plurality of minute perforations 9 through which ink may pass. The stencil thus made may be placed in a duplicating machine in the ordinary manner, with the indented side next to the ink pad, and, when copy paper is placed upon the stencil, ink can be forced into the indentations 8 and through the perforations 9 to the copy paper.

Through the use of a backing having fine, closely spaced projections 10 on its surface, the dots of ink which pass through adjacent perforations 9 may meet to form a continuous outline for the character written but the centers of the loop letters will not be cut out and, as a result of the fact that only those portions of the film 4 which are struck by the type 7 are offset from the plane of the film, only the offset or embossed portions 11 of the film 4 will be forced against the backing 5 with sufficient force for the granules of sand 10 to perforate the film 4, so that the outlines of the characters formed on the prints made through such a stencil will be clearer and sharper than would otherwise be the case.

What is claimed is:

1. A stencil, comprising a generally ink-impervious, homogeneous, semi-plastic, non-fibrous, cellulosic sheet containing local areas corresponding respectively to the various characters formed by a typewriter or the like and each having a plurality of minute perforations through which ink may pass.

2. A stencil, comprising a generally ink-impervious, homogeneous, semi-plastic, flexible, non-fibrous, cellulosic sheet containing local areas indented to form offset portions having a plurality of minute perforations through which ink may pass.

3. A stencil, comprising a generally ink-impervious, homogeneous, semi-plastic, flexible, non-fibrous, cellulosic sheet containing local embossed areas having a plurality of minute perforations through which ink may pass.

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