Jan. 8, 1924. 1,480,200

S. ELLIOTT

STENCIL

Filed Aug. 7, 1922 2 Sheets-Sheet 1

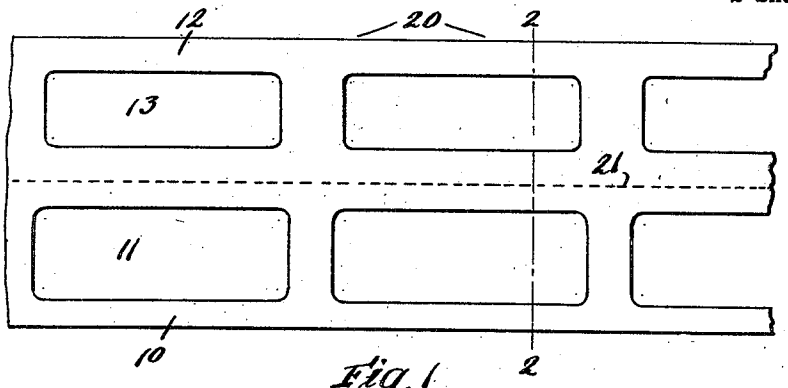


Fig. 1.

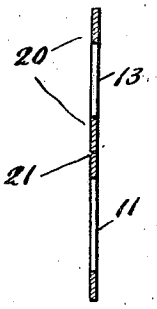


Fig. 2.

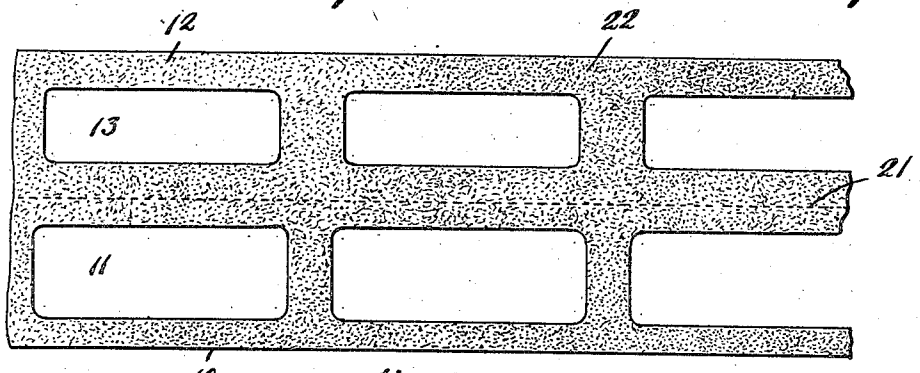


Fig. 3.

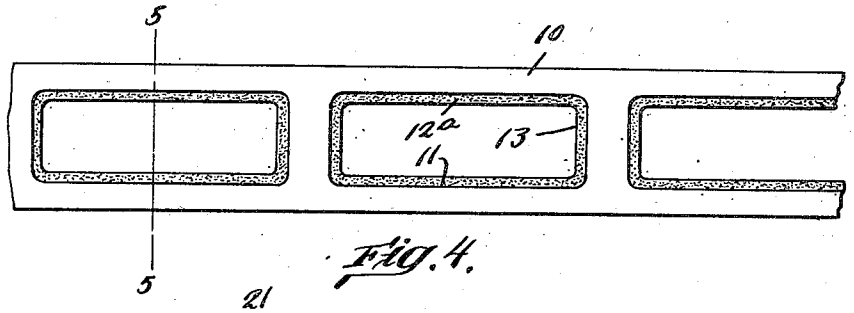


Fig. 4.

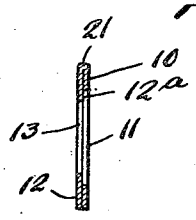


Fig. 5.

Inventor.

Harriett Adele Elliott

executrix of Sterling Elliott, deceased

by Thomas D. Cabot

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S. ELLIOTT

STENCIL

Filed Aug. 7, 1922 2 Sheets-Sheet 2

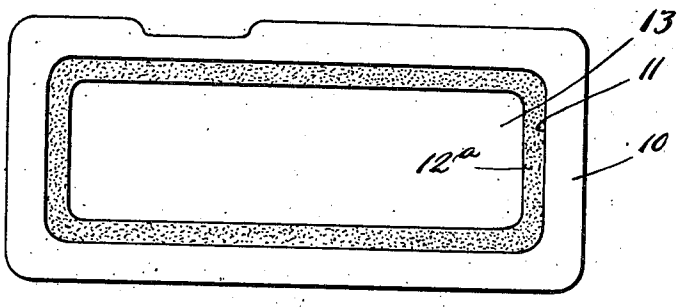


Fig. 6

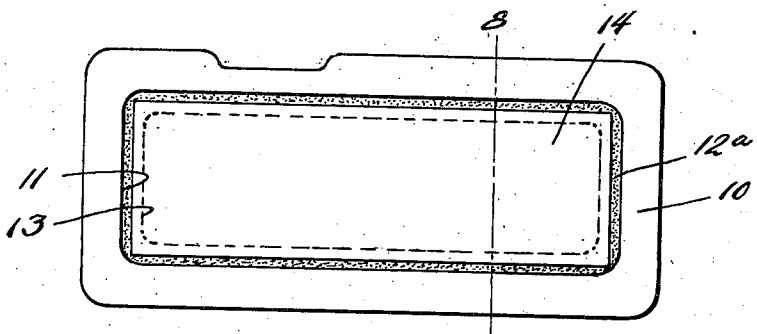


Fig. 7.

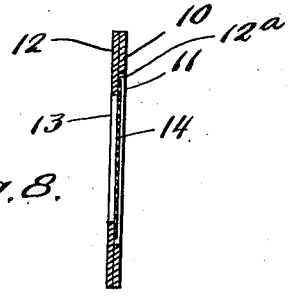


Fig. 8.

Inventor

Harriet Adell Elliott

executrix Sterling Elliott, deceased

by

Attorney

Patented Jan. 8, 1924. 1,480,200

UNITED STATES PATENT OFFICE.

STERLING ELLIOTT, DECEASED, LATE OF NEWTON, MASSACHUSETTS; BY HARRIET ADELL ELLIOTT, EXECUTRIX, OF NEWTON, MASSACHUSETTS.

STENCIL.

Application filed August 7, 1922. Serial No. 580,066.

To all whom it may concern:

Be it known that I, HARRIET ADELL ELLIOTT, a citizen of the United States, and a resident of Newton, in the county of Middlesex and State of Massachusetts, declare that I am executrix of the last will and testament of STERLING ELLIOTT, late a citizen of the United States and resident of Newton, county of Middlesex, and State of Massachusetts, deceased, and that the said STERLING ELLIOTT had invented an Improvement in Stencils, of which the following is a specification.

This invention relates to stencils especially adapted for use with printing machines, although not necessarily limited to use with such machines.

Stencils have previously been made from relatively heavy paper stock to form a frame having an aperture therein, and a thin sheet of stencil or mimeograph paper is secured to the frame over the aperture. The frame has comprised two superimposed sheets of heavy paper stock having aligned apertures therein, and a thin sheet of paper stock disposed between said superimposed heavy paper sheets and extended into the aligned apertures, and also having an aperture therein; and the mimeograph sheet is secured to a face of the middle sheet over the aperture therein, in which position it will be below the opposite faces of the stencil frame.

All sheets composing the frame are adhesively united together.

Considerable difficulty is experienced in the manufacture of the above-described stencil frame. Due to the fact that the outer heavy sheets and the inner thin sheet of the frame are taken from different rolls of paper stock, the hygroscopic properties of the sheets may be, and usually are, different. When the sheets are formed into a completed frame and subsequently assume uniform hygroscopic properties, there may be a relative shrinking or expansion of the sheets and the inner and thin sheet, and also the superimposed outer sheets, may full up or buckle; and the mimeograph sheet secured to the inner edges of said inner sheet may be forced above the face of the stencil frame, which is undesirable, or the sheet and the frame may be otherwise distorted.

An object of this invention is to provide a stencil of improved construction formed from a single sheet of paper stock whereby all portions of it will be at the same hygroscopic condition and there will be no appreciable tendency of the stencil frame to buckle or become distorted.

A further object is to provide a stencil frame that is relatively strong and substantial in construction.

Fig. 1 is a plan view of a portion of a sheet of paper stock blanked out for folding to form a stencil frame in accordance with my invention.

Fig. 2 is a section along line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 1 but with an adhesive coating applied to one side of the sheet of paper stock.

Fig. 4 is a plan view showing the two parts of the paper sheet folded together and adhesively united.

Fig. 5 is a section along line 5—5 of Fig. 4.

Fig. 6 is a plan view of the completed stencil frame.

Fig. 7 is a view similar to Fig. 6 but with a mimeograph sheet applied to the frame over the window therein.

Fig. 8 is a section along line 8—8 of Fig. 7.

The stencil embodying my invention comprises the upper relatively thick sheet of paper stock 10 having the window 11 therein. A second and lower sheet 12 of equal thickness is adhesively secured to said upper sheet by a suitable adhesive, as shellac, for instance, and said sheet is formed from an adjacent portion of the same sheet from which said sheet 10 is formed. Said lower sheet is formed with a window 13 therein which is aligned with the window 11 in the upper sheet. Said window 13 is smaller, however, than said window 11 so that the lower sheet extends within the space outlined by, or the boundaries of, said window and forms a ledge 12^a within the opposite faces of the stencil frame. A strip of thin or mimeograph paper 14 is adhesively secured to said ledge by a suitable adhesive.

In the manufacture of the above-described stencil, both upper and lower sheets 10 and 12 respectively of the stencil are formed of one sheet of paper stock, and this constitutes an important object of the invention.

The paper stock 20 (see Fig. 1) is usually of substantial length and in roll form and has a width somewhat more than twice the

width of the finished stencil to admit of trimming the stencil to predetermined finished dimensions. The sheet 20 is provided with a suitable crease line 21 in the middle portion thereof to define a line about which the two lateral portions are folded. A longitudinal row of large windows 11 are blanked out of that portion of the paper stock disposed on one side of the crease line 21; and the major axes of said windows are disposed parallel to the length of the paper stock; and a similar row of smaller windows 13 are blanked out on the other side of the crease line. Said windows 13 are smaller than said windows 11 so that, where the two parts of the sheet are folded together, at the crease line, the material in that position of the sheet bearing the windows 13 will extend within the boundaries of the windows 11. A coating of adhesive material 22 is applied over the surface of the paper stock and preferably on that face thereof which does not contain the crease line 21. Preferably, the entire width of the paper stock is covered with an adhesive although as here shown, yet, obviously, but one half of the paper sheet may be covered, if so desired.

The adhesive-coated paper stock is then folded upon itself about the crease line 21 and the two lateral portions of the sheet are superimposed one on the other with the windows therein arranged in alignment, and the two portions are adhesively united by the adhesive coating 22.

Fig. 4 illustrates the stencil at this stage in the process of making it.

The folded sheet is then passed through dies or is otherwise cut to form the separate stencils and also to trim and shape the edges thereof to produce the finished stencil frame illustrated in Fig. 6.

Inasmuch as the completed stencil is formed from adjacent parts of a single sheet of paper stock, all parts thereof will be at the same hygroscopic condition and there will be no appreciable tendency of the stencil to buckle due to uneven expansion or contraction of portions thereof.

It will be noted that the adhesive coating 22 covers not only the body of the lower stencil sheet 12 in the completed stencil frame, but also the ledge 12^a which is adapted to receive and support the mimeograph sheet; and the coating on said ledge is desirable in that it assists in securing the mimeograph sheet to said ledge, although the ledge, or it may be the mimeograph sheet, is or may be additionally coated with an adhesive when the sheet is applied to the frame.

It will be noted that with the construction herein described the lower sheet 12 of the completed stencil frame extends inwardly beyond the outlines of the window 11 in the upper stencil sheet so that a frame is produced having increased strength and rigidity, as contrasted with the previous triple sheet construction.

I claim:

1. As a new article of manufacture, a stencil frame comprising two structurally identical superimposed paper sheets of equal thickness having their contiguous faces adhesively united, whereby to form a unitary frame structure, both of said sheets having windows of differing dimensions therein, that sheet having the smaller window extended inwardly beyond the boundaries of the larger window to form a ledge.

2. As a new article of manufacture, a stencil comprising two structurally identical superimposed paper sheets of equal thickness having their contiguous faces adhesively united, whereby to form a unitary frame structure, both of said sheets having windows of differing dimensions therein, that sheet having the smaller window extended inwardly beyond the boundaries of the large window to form a ledge, and a stencil sheet received within the larger window and adhesively secured to said ledge.

3. The method of making a stencil frame which consists in forming windows of differing dimensions in a single sheet of paper stock, folding the sheet to superimpose two portions of said sheet with the windows therein in alignment, and cutting the stencil frame out of the folded sheet.

4. The method of making a stencil frame which consists in forming windows of differing dimensions in adjacent portions of a single sheet of paper stock, applying an adhesive coating to one side of said sheet, folding the sheet between the rows of windows with the adhesive coating disposed between the superimposed portions, and with the windows in alignment, and cutting stencil frame from the folded and superimposed section.

5. The method of making a stencil frame which consists in forming windows of differing dimensions in a single sheet of paper stock, and folding the sheet to superimpose two portions of said sheet with the windows therein in alignment.

6. The method of making a stencil which consists in forming windows of differing dimensions in a single sheet of paper stock, folding the sheet to superimpose two portions of said sheet with the windows therein in alignment and applying a stencil sheet over one of said windows and in said other window.

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

HARRIET ADELL ELLIOTT,
Executrix estate Sterling Elliott, deceased.