

June 8, 1926.

1,588,020

J. D. GRANGE

STENCIL MATERIAL

Filed Oct. 7, 1924

Fig. 1.

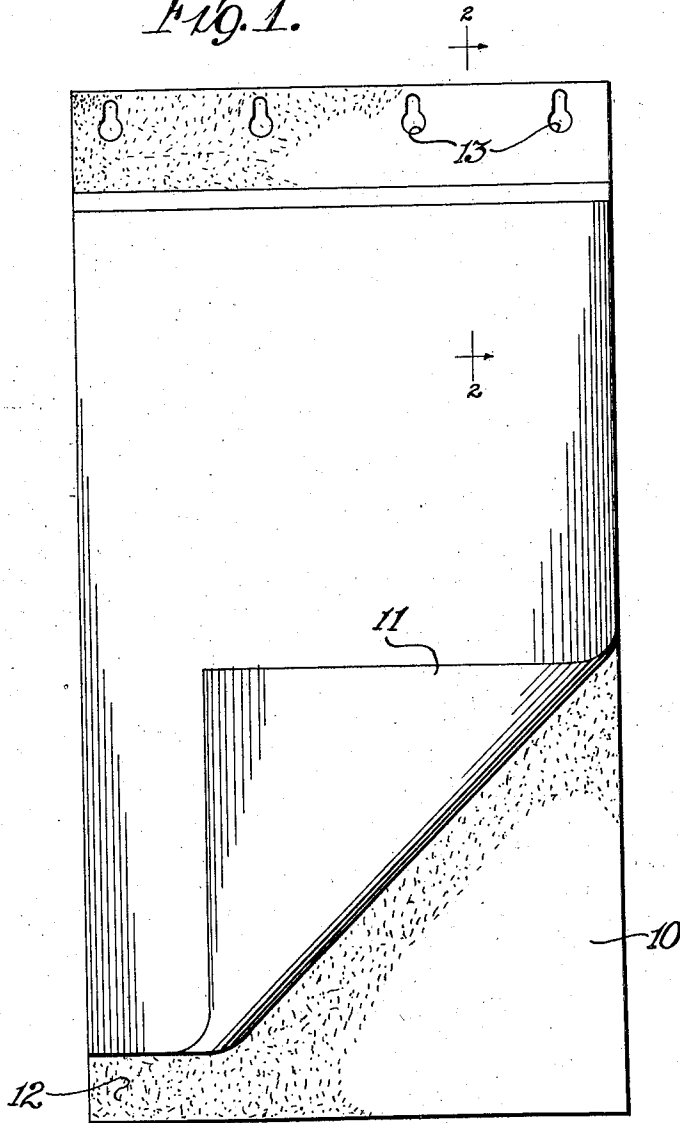
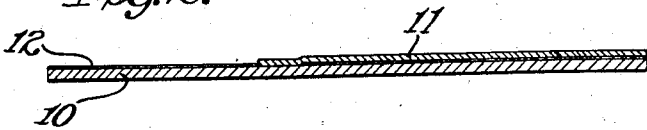


Fig. 2.



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UNITED STATES PATENT OFFICE.

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STENCIL MATERIAL.

Application filed October 7, 1924. Serial No. 742,103.

This invention relates to stencil materials, and more particularly to sheets for use with stencil blanks.

In employing stencil blanks of the class wherein filling material impervious to ink is expressed from a tissue sheet in response to the action of a typewriter, in some instances a so-called backing sheet is placed between the stencil blank and the platen of the typewriter machine. This backing sheet serves to prevent the severing of the fibers of the stencil blank when it is being cut or stenciled by the machine.

When the stencil blanks are of the so-called dry type which require moistening with some fluid before they are stenciled it has been found that in some instances the fibers of the backing sheet of paper or other similar fibrous material absorbs the moistening fluid. This absorption softens the surface of the backing sheet that the characters cut in the stencil are not accurately and sharply defined. Furthermore, since the exposed fibers may be unevenly distributed over the surface of the backing sheet, the stencil is not always uniform in character over its entire surface.

Stencil blanks of some types, such as that disclosed and claimed in Patent 1,562,228, issued to J. D. Grange, November 17, 1925, contain some moisture when their manufacture is completed and in order to insure their being in perfect condition for stenciling, it is essential that this moisture be retained in the blank during storage for a comparatively long period of time before the blanks are stenciled. Since such blanks are also somewhat hygroscopic in character, it is also desirable to protect them during storage from undue exposure to moisture.

An object of the invention is to preserve for long periods of time stencil blanks in readiness to be stenciled.

Another object of the invention is to provide an improved backing sheet which insures the production of sharply defined and uniform characters during the stenciling of an associated stencil blank.

In order to attain these objects in accordance with the features of the invention there is provided in one embodiment thereof a backing sheet which is coated with a thick layer of waxy material, such as paraffin, so applied as to thickly cover all of the fibers

near the surface of the sheet which surface is placed adjacent to the stencil blank during stenciling. The thickness of the coating is such that none of the fibers can become exposed during the formation of the characters in the blank. Each backing sheet is assembled, before storage, with the paraffin coating thereof in direct contact throughout with a surface of a stencil blank which may be of the type disclosed and claimed in my above mentioned copending application. Especially, as is usually the case, when several assembled units are packed closely together, the paraffin coating of the backing sheet not only serves to effectively prevent the escape by evaporation, of the essential moisture in the stencil blank, but also to protect the blank from the humidity in the storage atmosphere. Preferably the units when placed in storage are so packed that the blanks of two units are placed in contact, the back surfaces of the backing sheets being in contact with the back surfaces of adjacent units. Thus the stencil blanks are maintained in condition for immediate stenciling throughout their period of storage.

Other objects and advantages of the invention will more fully appear from the following detailed description taken in connection with the accompanying drawings, which illustrate one embodiment thereof, and in which—

Fig. 1 is a front elevation of a complete stencil unit, and

Fig. 2 is an enlarged cross section thereof.

Referring now to the drawings in detail in which like reference numerals designate similar parts throughout the several views, 10 denotes a backing sheet of fibrous material and 11 an associated stencil blank, which may have a water soluble gelatinous base, such as that described and claimed in my above mentioned copending application.

The backing sheet 10 is provided with a plurality of perforations or slots 13 of any usual form, which facilitate the attachment of the stenciling material or unit to a machine for reproducing the stencil characters. One side of the backing sheet 10 is covered with an unbroken coating 12 of a nonhygroscopic and non-adhesive substance, such as paraffin or wax, which coating may be applied in any usual manner. This coating 12

covers all of the fibers on the side of the backing sheet 10 adjacent the under surface of the stencil blank 11 and is in direct contact with the surface of the stencil blank.

5 The thickness of the coating of wax is such that it will prevent exposure of any of the fibers of the backing sheet during stencilization of the stencil blank.

10 The stencil blank 11 may be of the type that requires moistening before stencilization, which moistening causes the water soluble gelatinous base to form an adhesive, and the stencil blank 11 is prevented from adhering to the fibers of the backing sheet

15 by the complete paraffin coating.

The coating of paraffin is non-hygroscopic and impervious to water and hence will prevent the backing sheet from absorbing the essential moisture in the stencil blank, and thus preserves the blank ready for immediate stencilization as well as protects the fibrous material of the sheet from the moistening fluid used during the stencilizing process. This is very important,

25 inasmuch as it prevents the fibers of the backing sheet from absorbing moisture, thereby insuring that the characters being cut in the stencil are accurately and sharply defined.

30 When the backing sheets and the associated stencil blanks are stored the paraffin coating not only effectively prevents the evaporation of the moisture in the stencil blank, but also protects the blank from the

35 ingress of excess moisture from the storage atmosphere, especially when units are paired so that two blanks in contact with each other are placed between two backing sheets. Thus the stencil blanks may be maintained

40 in condition for immediate stencilization throughout long periods of storage.

What is claimed is:

1. A backing sheet for a stencil blank comprising a sheet of fibrous material, and

45 a waxy coating completely covering the fibers thereof for direct contact with the stencil blank.

2. A backing sheet for a stencil blank comprising a body portion of fibrous material and an unbroken waxy coating over a surface thereof for direct contact with the

50 stencil blank.

3. A backing sheet for a stencil blank comprising a body portion of fibrous material, and a coating of paraffin over a surface thereof for direct contact with the

55 stencil blank.

4. A backing sheet for a stencil blank comprising a body portion of fibrous material, and a coating of non-hygroscopic,

impressionable material of uniform thickness completely covering all fibers of one surface thereof for direct contact with the stencil blank.

5. A backing sheet for a stencil blank 65 comprising a sheet of fibrous material, and a waxy coating on a surface thereof for direct contact with the stencil blank, said coating being of a thickness to prevent the exposure of any fibers of the material during

70 stencilization of the blank.

6. A backing sheet for a stencil blank adapted to be stencilized while moist, comprising a body portion of absorbent material and another portion of non-absorbent, impressionable material for direct contact with the blank and being of a thickness sufficient to prevent the absorption of any of the moisture of the blank by the body portion during stencilization.

7. A stencil unit comprising a stencil blank containing an adhesive ingredient and a sheet of fibrous material, and having a non-adhesive, impressionable coating completely covering the fibers thereof and in direct contact with the stencil blank to prevent adherence between the blank and sheet and also to prevent absorption of moisture by the sheet.

8. A stencil unit comprising a stencil 80 blank containing moisture and a sheet having a body portion of absorbent material and an impressionable coating of non-absorbent material, said coating being in direct contact with the stencil blank and

95 forming the sole separating medium between the absorbent material and the stencil blank.

9. A stencil unit comprising a stencil blank and a backing sheet having a surface in direct contact therewith, said surface being coated with a waxy material to a depth greater than the greatest depth of impressions made therein during stencilization.

10. A stencil unit comprising a stencil 105 blank having a water soluble gelatinous base and a backing sheet having a surface coated with paraffin in direct contact with the stencil blank.

11. A backing sheet for a stencil blank 110 comprising a sheet of fibrous material, and an impressionable coating covering the sheet for direct contact with the stencil blank, said coating being the sole separating medium between the blank and sheet.

115 In witness whereof, I hereunto subscribe my name this 27th day of September A. D., 1924.

JOHN DOUGLASS GRANGE.