Nov. 2, 1926. 1,605,570

J. C. SMITH

SIGN LETTERING AND PROCESS OF MAKING THE SAME

Filed May 15, 1926

Fig. 1

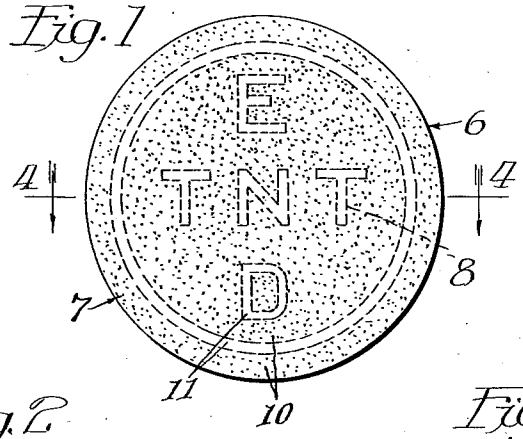


Fig. 2

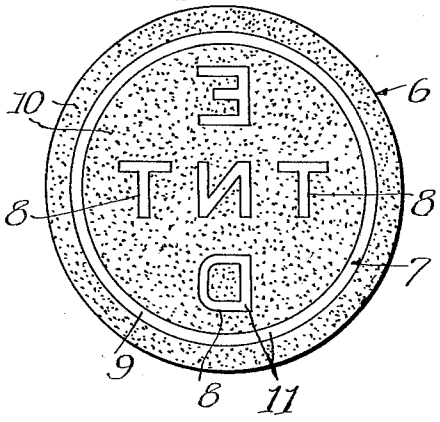


Fig. 3

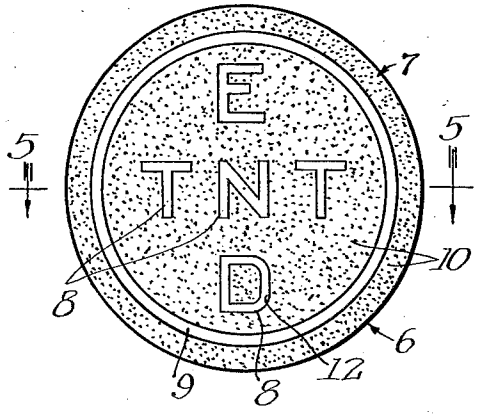


Fig. 4

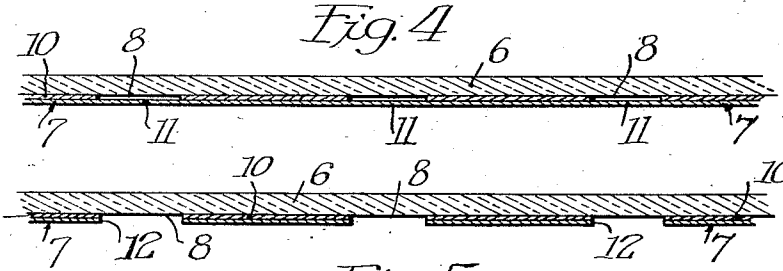


Fig. 5

Inventor:
John C. Smith,
by Fisher, Bowle, Clapp & Soans, Attys

Patented Nov. 2, 1926. 1,605,570

UNITED STATES PATENT OFFICE.

JOHN C. SMITH, OF CHICAGO, ILLINOIS.

SIGN LETTERING AND PROCESS OF MAKING THE SAME.

Application filed May 15, 1926. Serial No. 109,321.

My invention relates to sign lettering or decorating and a novel process of making the same.

The object of the invention is to provide a novel sign and method for producing various lettering, decorating, or characters in a simple, efficient, and economical manner, and which readily lends itself to a varied type of work but which is especially adapted for use in connection with the application of sign lettering or decorating on glass globes or panels of rounding contour or flat form, and which also adapts itself in connection with sandblast characters.

Other and further objects of the invention will appear as the description proceeds.

In the accompanying drawings Fig. 1 is a front elevation of a glass panel or front of a globe shown in the first stage of the process.

Fig. 2 is an inside or rear elevation.

Fig. 3 is a front elevation of the panel with the completed sign lettering or decorating.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1, and

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 3.

In accordance with the preferred form of the invention a glass panel or globe 6 has applied thereto a sheet of tissue paper 7 or like absorbent material, preferably in sheet form, on which has been previously applied the sign lettering or characters 8 and other suitable decorating or ornamentation 9 to produce the complete design. These are preferably produced by leaving the characters uncoated with the ink, while the ink, designated at 10, forms outlines producing the characters or other decorating. The desired characters may be applied to the sheet of tissue paper or other suitable absorbent material by means of a rubber stamp, type, cut, engraving or stencil, and the ink or paint is preferably water proof or non-dissolvent and of any desired coloring. The paper, whether applied to glass, wood, or metal surfaces, being absorbent material, will take up or imbibe part of the ink or paint which will substantially penetrate the paper, partly at least. I will hereinafter refer to the ornamented paper as a print.

The paper with the characters thereon is applied to the surface, preferably while wet and is smoothed out evenly and flat. The lines between or forming the characters—that is, the portions surrounded by the ink, are then washed out or dissolved up to the margins of the lettering or the characters in the print, the distintegration of the uncoated portion of the paper, i. e., that part having no ink thereon, being removed and leaving a sharp outline for the sign or lettering. After this paper or fibrous material is so removed, the surface including the print or portion thereof remaining on the panel or surface, especially of transparent panels, may be sprayed with paint, preferably white enamel, to back up the coated portions and cause the character to stand out sharp and clear white at the transparent uncoated portions. In the case of translucent, i. e. smoked or milky panels or surfaces, it may be sprayed with a transparency such as varnish which soaks into the paper and brings out the ink in such a manner as to darken and emphasize the same, so that the color will be brightened and in case of using black ink the nebulous or cloudy appearance of the paper will be overcome owing to the fact that the paper remaining on the surface or panel will be made transparent, thus producing a clear and attractive sign character or ornamentation.

If desired, the paint may be mixed with a reinforcing of fiber. In this respect very finely or comminuted glass fiber may be employed. In any event, it is understood that the print may be applied when wet or dry, but is preferably applied while wet, that is, sticky or tacky. Also, in lieu of employing paper or similar sheet fibrous material, part of which may be washed or dissolved out up to the margins of the lettering or the characters by means of water, tracing cloth may be employed or I may employ gelatin or very thin celluloid, preferably in sheet form, of a transparent, semi-transparent, or translucent character, for producing the print of suitable soluble material which may be dissolved or washed out with a suitable solvent, such as acetone or alcohol. Furthermore, a transparency may be employed which is left on the panel or surface, such as onion skin, although portions are preferably removed or dissoled out up to the margins of the lettering or characters.

In the event that it is desired, a resist of gelatin, dextrine, gum, or suitable glue may be applied to the panel, especially a milky

or opaque panel, before the print has been applied and then portions thereof washed or dissolved out with the corresponding portions of the print, the remaining portions serving as a sandblast resist protecting the glass or surface while the characters are blasted with the sand, to be later painted or colored.

Figs. 1 and 4 of the drawings show the sheet 7 with the ink or paint 10 thereon and the print applied to the panel, the portions 11 being the uncoated or unprinted parts of the paper sheet which are washed or dissolved out up to the margins 12 of the characters or the lettering 8, as indicated in Fig. 5, thus leaving the characters exposed. Of course, the reverse arrangement may be employed whether used with transparent or translucent glass or other surfaces, such as the ordinary glass globes employed outside garages and stores and elsewhere, and semi-glass signs having metal casings with glass panels.

In certain cases where a resist of gelatin dextrine, gum, glue, or the like, is used as a resist, this may be applied to the entire surface of the globe or panel, especially glass of a translucent character, before the print has been applied thereto. Then the print is applied, after which the uninked or uncoated portions of the print or paper and the portions of the resist therebeneath are removed by washing or dissolving out the same. The exposed portions are then treated with the sandblast and may then be painted to produce highly attractive color effects of various designs. After painting the sandblasted or roughened portions, the parts to which the resist has been applied are then removed. In either case, the print is a quick and efficient means of producing the desired characters and helps to protect the resist when used therewith. Where the panel is of transparent glass or other suitable material, the print may be allowed to remain thereon and this without spraying with white or other paint or a transparency such as varnish, since the ink will stand out in different colors sufficiently sharp and clear. However, when employing the sandblast with a resist as previously described, after the panel is sandblasted, the sandblasted portion may be painted without taking enough care to prevent the paint getting on the resist and print coated portions, or the entire surface may be painted or colored over including the resist and the sandblasted part of the panel, such as smoked or white glass of a milky or translucent character, and then after the paint is dry, the color and resist are washed or dissolved off those smooth or polished portions which have not been sandblasted, leaving the color paint in the sandblasted or sunken portions. The paint preferably is a suitable quick drying paint or lacquer, or such as to cause the paint to dry entirely through its depth or thickness—that is, to dry or set hard through to the surface on which it is applied or placed, especially to the sandblasted or roughened portions which are painted in the finished product, and stippled or otherwise treated as desired, and instead of merely washing out the portions around the sandblasted or painted sandblasted portions, the entire panel may be dropped into hot water or other dissolvent, or the warm or hot water applied to the panel to soften the resist, so that the entire coating or sheet outline of the resist together with its paint, may be removed in one piece. Of course, it is to be understood that when painting over the sandblasted portions it is not necessary to take precautions to paint over the resist also, but the paint may be quickly applied to the sandblasted portions and may be applied or run over portions of the resist. However, when the panel is dipped in hot water this softens the entire resist including those portions which have been painted over, allowing the resist to be easily removed in one piece as a sheet with the openings of the characters therein, including any paint thereon but leaving the paint in the sandblasted sunken portions. This obviates disintegration or marring of the outlines and the necessity of removing the resist piecemeal, as well as the necessity of taking extreme care in the application of the paint or color between the outlines of the sandblast resist material. Thus, a more economical and quicker quantity production is possible. Of course, the process, especially the print or paper, may be applied to a surface of any material other than as specified, whether painted or unpainted, finished or unfinished.

While I have shown and described my invention in a preferred form, I am aware that various changes and modifications may be made therein without departing from the principles of the invention, the scope of which is to be determined from the appended claims.

I claim as my invention:

1. The process of sign lettering or decorating consisting in applying to a surface to be decorated, a coating with non-dissolvent characters thereon, and washing or dissolving out the coating and disintegrating and removing the same up to the margins of the lettering or characters, leaving the balance intact.

2. The process of sign lettering or decorating consisting in applying to a panel or surface, a print in the form of a sheet of tissue, having the desired characters impressed thereon in impervious material, and dissolving portions of the print up to the margins of the characters.

3. The process of sign lettering or deco-

rating consisting in applying to a panel or surface, a print having the desired characters impressed thereon, removing portions of the print up to the margins of the characters, and subsequently rendering the material of the print which remains, transparent.

4. The process of sign lettering or decorating consisting in applying to a panel or surface, a print having the desired characters impressed thereon, and spraying the print with a coating to render the same transparent and bring out the ink thereof.

5. The process of sign lettering and decorating consisting in applying to a panel or surface, such as a translucent or transparent glass panel, an absorbent sheet on which the characters are impressed in waterproof ink or paint while said ink is sticky, and then dissolving out portions of the sheet around the ink characters and up to the margins thereof.

6. The process of sign lettering and decorating consisting in impressing on an absorbent sheet, the characters to be produced in waterproof ink or paint, applying said sheet while sticky to the surface or transparent glass panel and then dissolving out portions of the sheet around the ink characters and up to the margins thereof and subsequently rendering the absorbent sheet material to which the ink is applied, transparent.

7. A sign comprising a transparent glass panel or surface having a fibrous sheet on which ink characters are impressed, applied thereto, and the portions of the sheet defined by the margins of the characters removed.

8. A sign comprising a transparent glass panel or surface having a fibrous sheet on which ink characters are impressed, applied thereto, and the portions of the sheet defined by the margins of the characters removed and the remaining portions rendered transparent.

9. A sign of the character described, comprising a panel having a soluble print on which the characters are impressed, applied thereto, and the portions defined by the margins of the characters dissolved to define a sharp outline of the characters.

10. The process of sign lettering or decorating consisting in applying a resist to a surface to be decorated, applying a coating in sheet form with characters imprinted thereon, on the resist, washing or dissolving out unprinted portions of the coating and removing the same up to the margins of the letters or characters and also the resist under the unprinted portions, leaving the balance intact to permit the exposed portions to be sandblasted.

11. The process of sign lettering or decorating consisting in applying a resist to the entire surface to be decorated, applying a printed coating with characters thereon over the resist, washing or dissolving out the unprinted portions of the printed coating and removing the same up to the margins of the lettering or characters together with the resist under the same, leaving the balance intact, sandblasting the exposed portions where the coating is removed, coloring or painting over the entire surface including the resist and then washing or dissolving the resist and color thereon after the paint is dry, leaving the color in the sandblasted or sunken portions.

12. The process of sign lettering or decorating consisting in applying to a panel or surface to be decorated, such as glass, a sandblast resist such as gelatin, applying a print having the desired characters impressed thereon over the resist, removing portions of the print and resist therebeneath up to the margins of the characters to be produced, subsequently sandblasting the glass where such portions have been removed, and then removing the resist.

13. The process of sign lettering or decorating consisting in applying to a panel or surface, such as glass, a sandblast resist, such as gelatin, forming outlines of characters to be produced, removing the resist within the outlines of the characters or portions to be sandblasted, sandblasting the exposed portions of the glass, coloring over the entire surface including the resist with paint and then removing or washing off the resist and color thereon in toto except in the sandblasted or sunken portions, after the paint has dried.

14. The process of sign lettering or decorating consisting in applying a resist to the entire surface of a glass globe or panel to be decorated, applying an ink-printed sheet with the characters thereon over the resist to give the outlines of the characters to be produced, and washing or dissolving out the uninked portions of the printed sheet up to the margins of the lettering or characters on the sheet and also the resist under the uninked portions of the sheet, leaving the inked portions of the sheet forming the outlines of the characters and the resist thereunder to permit the exposed portions to be sandblasted or otherwise provided with a roughened sunken surface adapted to be colored or painted.

15. The process of sign lettering or decorating consisting in applying to a panel or surface, such as glass, a sandblast resist, applying a print over the resist, removing the unprinted portions of the print and the sandblast resist therebeneath, sandblasting the exposed portions of the glass, painting the sandblasted portions and then softening and removing the resist and any paint thereon after the paint has set and dried hard in the sandblasted portions.

16. The process of sign lettering or decorating consisting in applying to a panel or surface, a print having waterproof characters impressed thereon and removing portions of the print up to the margins of the characters.

17. The process of sign lettering or decorating consisting in applying to a transparent panel or surface a print having the desired characters impressed thereon, removing portions of the print up to the margins of the characters, and subsequently backing up the material of the print which remains with paint of contrasting color to show through the portions of the panel from which uninked portions of the print have been removed.

18. The process of sign lettering or decorating consisting in applying to a panel or surface, a print having the desired characters impressed thereon, and spraying the print with a coating to render the same transparent and bring out the ink thereof.

19. The process of sign lettering and decorating consisting in applying to a panel or surface an absorbent sheet on which the characters are impressed in waterproof ink or paint, and then dissolving out portions of the sheet around the ink characters and up to the margins thereof.

20. A sign comprising a transparent glass panel or surfacee having a fibrous sheet on which ink characters are impressed, applied thereto, and the portions of the sheet defined by the margins of the characters removed and the remaining portions, and portions from which the sheet has been removed backed up with a coating such as paint to show through the transparent panel.

JOHN C. SMITH.