

P. ANDERSON.
METHOD OF MAKING SIGNS ON MIRRORS.
APPLICATION FILED JUNE 16, 1911.

1,053,937.

Patented Feb. 18, 1913.

Fig. 1.

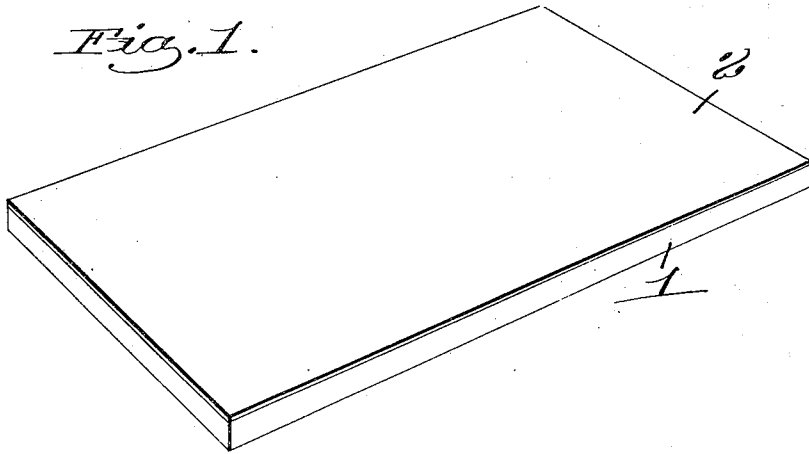


Fig. 2.

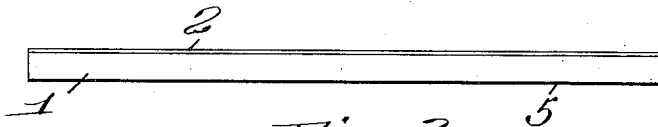


Fig. 3.

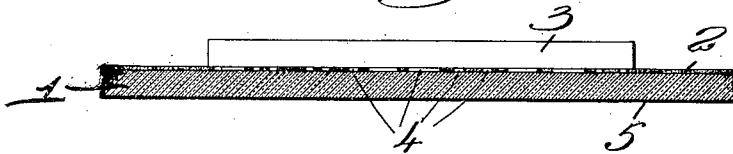


Fig. 5.

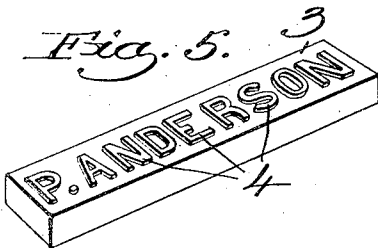
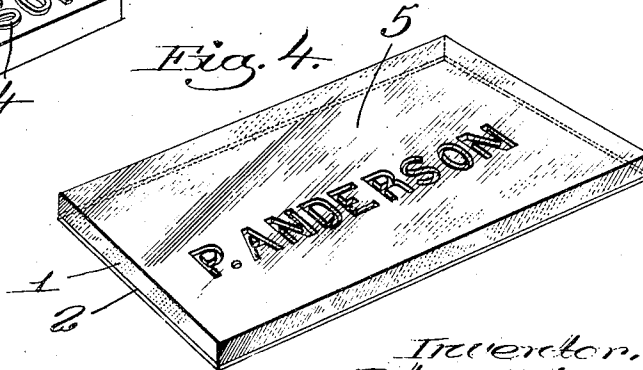


Fig. 4.



Witnesses:
Edw. S. Greenleaf.
Warren O'Neil.

Inventor,
Peter Anderson,
by Edmunds Hand Smith
attys

UNITED STATES PATENT OFFICE.

PETER ANDERSON, OF REVERE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HARRY A. OLSON, OF REVERE, MASSACHUSETTS.

METHOD OF MAKING SIGNS ON MIRRORS.

1,053,937.

Specification of Letters Patent.

Patented Feb. 18, 1913.

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To all whom it may concern:

Be it known that I, PETER ANDERSON, a citizen of the United States, residing at Revere, county of Suffolk, State of Massachusetts, have invented an Improvement in Methods of Making Signs on Mirrors, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object to provide a novel method of making a sign which is associated with a mirror or other reflecting surface so that the sign will appear on the back side of the mirror and be visible from the front of the mirror.

In making my improved mirror I apply to one surface of a sheet of glass or other transparent material a reflecting material in liquid form and while the reflecting material is still in its liquid state and before it is dried I apply to the glass a die or impression member having on its face an impression of the sign or ornamentation to be produced. This die or impression member when applied to the glass will displace the reflecting material and the impression member is held in its position on the glass until the reflecting material becomes hard. When the die is removed the portions of the glass with which the face of the die contacted will be free from reflecting material and consequently transparent, while the other parts of the glass will have the reflecting material applied thereto. The front face of the glass will have the appearance of a mirror except at the points where the die member contacted with the glass and these points will present the sign or configuration which it is desired to produce. The portion of the glass bearing the design may be left perfectly transparent or a backing of different colors may be applied thereto according to the effect desired to be produced.

My process may be carried out in various ways and by various appliances.

In order to more clearly describe the invention I have illustrated in the drawings some of the principal steps in the carrying out of the invention.

Figure 1 is a perspective view showing a sheet of glass or other transparent material provided on one face with a coating of reflecting material; Fig. 2 is an edge view of

Fig. 1; Fig. 3 shows the glass with the impression die applied thereto; Fig. 4 is a view of the completed sign; Fig. 5 is a face view of the die member.

In carrying out my invention I take a piece of glass 1 of any suitable shape and size and then apply to one face thereof a coating 2 of reflecting material in liquid form. Any suitable reflecting material may be employed, but I will preferably use nitrate of silver or some other similar material which can be applied in liquid form, but which will readily dry and become hard. While the reflecting material 2 is still in liquid or semi-liquid or plastic state, I apply to the coated face of the glass a die or impression member 3 which has on its face the design 4 which it is desired to reproduce. I find good results can be secured by using an impression member which has a more or less flexible impression surface, such, for instance, as would be provided by a rubber stamp. I also find that where a rubber stamp is used it is desirable to have the stamp heated before applying it to the sign. This can be readily done by immersing the rubber stamp in hot water. I have found from experiments that the use of hot water for heating the rubber die or stamp has decided advantages, for when the stamp is thus heated in hot water it is still moist when it is applied to the sign, and my demonstrations have shown that when the die is applied to the sign in a moist condition it will make and leave a much sharper and clearer outline to the ornamentation than if it is not moistened when it is so applied. If the sign to be produced is merely certain words, then the die or impression member 3 will have engraved on its face the letters comprising said words, or the die may have engraved on its face any ornamentation or other design to be produced. In making the die 3 the letters or other ornamentation are raised from the surface of the die and the letters or design should be so formed that the face of the die presents the letters or design in their correct position and not perverted, as is the case with the ordinary stamp or type. For instance, in the drawings illustrated the design to be produced is "P. Anderson", and the die member 3 will be formed with these words on its face, so that they will read as shown in Fig. 5.

The die member is applied to the coated face of the glass 1 while the coating 2 of reflecting material is still in its liquid state, and this die member is pressed firmly against the glass, and in doing so the raised portion or design thereon will cut through and displace the coating material 2 so that the raised portions will come directly against the glass 1. The die member is firmly held in this position until the coating 2 is thoroughly dried and hardened, and then when the die member is removed the portions of the glass against which the raised portions 4 of the die member rest will be free from reflecting material and consequently transparent, while the other portions of the glass will be covered with reflecting material and will act as a mirror. The result will be that when the face 5 of the glass is presented the sign or design produced by the die member will show as a transparent portion of a mirror.

If desired a coating of any colored paint or varnish may be applied to the back of a mirror in which case the lettering or design of the sign will appear in color through the mirror. Better results can be obtained if a coating of turpentine is first applied to the back of the mirror and then the varnish or paint applied over the turpentine coating.

My invention can be applied to a great variety of uses. It may be used for ornamenting mirrors, or for producing advertising or other signs.

It will be seen from the above that the invention is very simple and can be easily carried out, and that by means of it a very attractive sign can be produced.

I am aware that it has been heretofore proposed to ornament mirrors by applying a stencil to the coated back of the mirror and then removing the portions of the coating which are exposed by the stencil, and

further that it has been proposed to ornament glass or mirrors by using a stencil and painting onto the back of the mirror through the stencil the pigment or other coloring matter. My invention is to be distinguished from these methods because in carrying out my method the silver backing is applied in a liquid form and while it is still liquid the impression member is forced firmly against the coated face of the mirror, and by this process cuts through the backing which is not yet hard and forces it out from under the impression face of said member so that the backing is removed from the glass by the pressure of the die or impression member. The impression member is held in firm contact with the mirror until the backing is thoroughly hard and then it is removed to leave the unbacked portions of mirror.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

The process of making signs on mirrors which consists in coating one face of a glass with reflecting material in liquid form and while the reflecting material is still in liquid form applying to said face a hot moist rubber impression member having the sign to be produced in raised portions thereon, pressing said member firmly against said face to cause the raised portions to displace the reflecting material, allowing said impression member to remain in contact with said coated face until the reflecting material has become hard and then removing said impression member.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

PETER ANDERSON.

Witnesses:

LOUIS C. SMITH,
THOMAS J. DRUMMOND.