No. 831,591. PATENTED SEPT. 25, 1906.

J. W. AYLSWORTH.

PHOSPHORESCENT STAMP.

APPLICATION FILED MAR. 2, 1905.

Fig. 1.

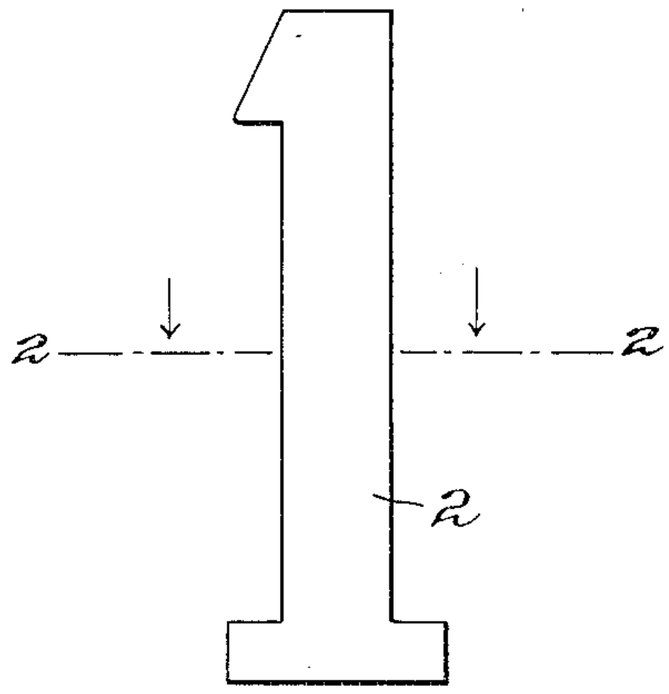


Fig. 2.

Fig. 3.

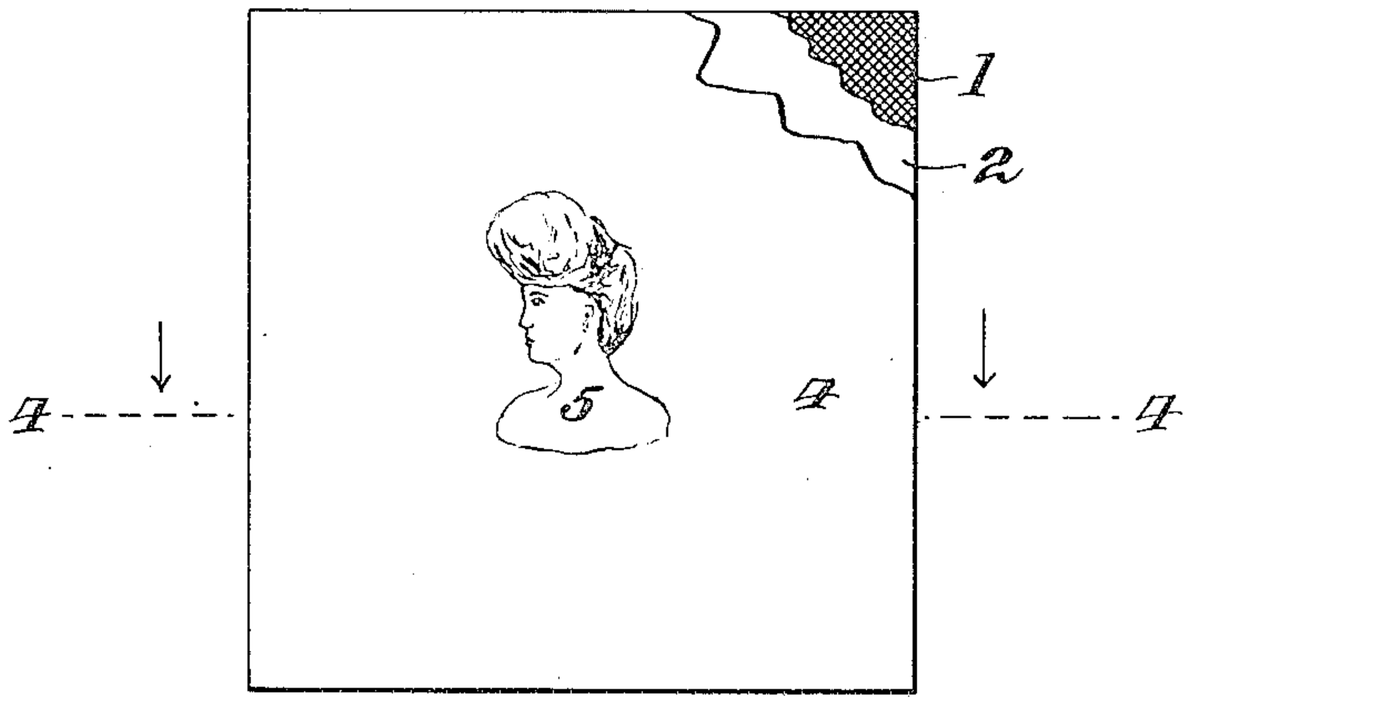
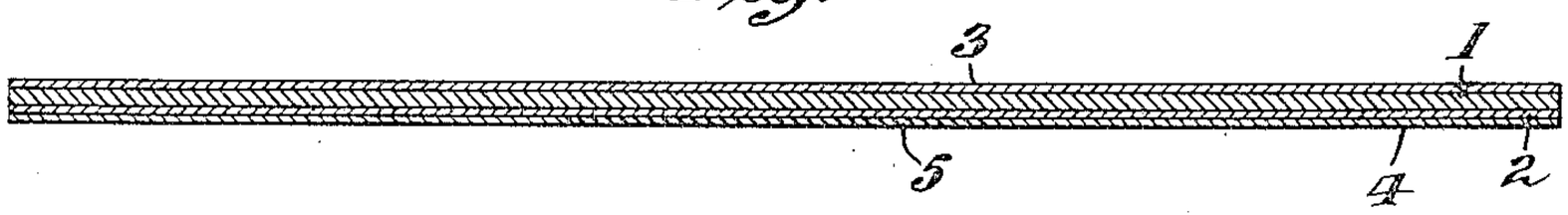


Fig. 4.



Witnesses
Edgeworth Stearns
Delos Holden.

Inventor
Jonas W. Aylsworth
By his Attorney
Frank L. Stearns

UNITED STATES PATENT OFFICE.

JONAS W. AYLSWORTH, OF EAST ORANGE, NEW JERSEY.

PHOSPHORESCENT STAMP.

No. 831,591. Specification of Letters Patent. Patented Sept. 25, 1906.

Application filed March 2, 1905. Serial No. 248,184.

To all whom it may concern:

Be it known that I, JONAS W. AYLSWORTH, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Phosphorescent Stamps, of which the following is a description.

My invention relates to a new article of manufacture, comprising a stamp capable of being applied by adhesion to any article and carrying a phosphorescent surface.

The object of the invention is to provide a very cheap and ready method of applying a phosphorescent material to articles which require to be used at night, such as matchboxes, &c. Furthermore, the stamps to which the phosphorescent material is applied may be in the form of animals, letters, numbers, and designs for the amusement of children, as well as for purposes of utility, or instead there may be superimposed upon the phosphorescent surfaces opaque pictures, photographs, silhouettes, designs, or printed matter, which will be displayed very conspicuously on the phosphorescent background.

In order that the invention may be better understood, attention is directed to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents the stamp in the form of a number; Fig. 2, a cross-sectional view, on a very much enlarged scale, on the line 2 2 of Fig. 1; Fig. 3, a plan view of another form of stamp in which a photograph is superimposed on the phosphorescent film; and Fig. 4, a cross-section, on a very much enlarged scale, on the line 4 4 of Fig. 3.

In the views corresponding parts are represented by the same numerals of reference.

1 represents the support, to which the phosphorescent material is applied. This support may be formed of paper, cardboard, fabric, metal foil, or any other thin relatively pliable material. The support may be cut into any desired forms, such as small rectangles, animals, numbers, or designs, or instead the support may be in the shape of sheets, which may be cut into any desired form by the user. Applied to one surface of the support is a film 2 of phosphorescent material, such as sulfids of barium, strontium, calcium and zinc, or mixtures thereof, with a vehicle which may be a transparent varnish or gum, as is common. I find in practice, however, that when phosphorescent materials are applied by means of a transparent vehicle, such as varnish, decomposition of chemicals inevitably takes place, owing to the presence of pores in the film due to the application of the same by means of a volatile solvent. Therefore in order to provide a phosphorescent film that shall be permanent I prefer to employ a vehicle consisting of a fused relatively transparent material, such as ceresin or paraffin. In that case the phosphorescent sulfid or other chemical will be added to the fusible vehicle when the latter is in a molten condition and applied to the support 1 in a heated state. On the other side of the support 1 I apply a film 3 of adhesive material, such as gum-arabic, in order that the stamps may be affixed by adhesion to the desired article. In Figs. 3 and 4 an arrangement is shown in which the phosphorescent stamp is supplemented by the application thereto of a relatively opaque photograph in order that the latter may be conspicuously disclosed by reason of the phosphorescent background. In this case the photographic film 4 is transparent, being applied to the phosphorescent film in any suitable way, while the photographic image 5 is relatively opaque. Obviously in the case of pictures, designs, letters, silhouettes, &c., the latter will be applied directly to the phosphorescent film without the use of any equivalent of the transparent film 4. These photographs or other opaque forms are applied to the phosphorescent film either after the latter has been applied to the support 1, in which case a suitable adhesive material would be used, or instead and preferably the obaque form is applied to the phosphorescent film when the latter is in a heated condition, so as to dispense with the employment of an adhesive material.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. As a new article of manufacture, a stamp provided with a surface composed of a phosphorescent material and a transparent fusible vehicle therefor, substantially as set forth.

2. As a new article of manufacture, a stamp provided with a surface composed of a phosphorescent material and ceresin, substantially as set forth.

3. As a new article of manufacture, a stamp provided with a phosphorescent sur-

face and a transparent film carrying a photograph and applied to the phosphorescent surface, substantially as set forth.

4. As a new article of manufacture, comprising a stamp, a phosphorescent film carried thereby composed of a fusible vehicle and phosphorescent material, and an opaque form directly adhering to the film, substantially as set forth.

5. As a new article of manufacture, comprising a stamp, a phosphorescent film carried thereby composed of a fusible vehicle and phosphorescent material, and a transparent film directly adhering to the phosphorescent film and carrying a photographic image, substantially as set forth.

This specification signed and witnessed this 17th day of February, 1905.

JONAS W. AYLSWORTH.

Witnesses:

FRANK L. DYER,

ANNA R. KLEHM.