

(No Model.)

J. BAYNES.
DIRECT PRINTED ADHESIVE NEGATIVE.

No. 418,675.

Patented Jan. 7, 1890.

Fig. 1.

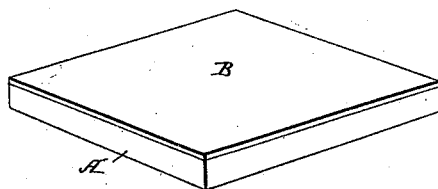


Fig. 2.

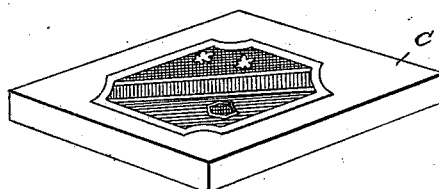


Fig. 3.

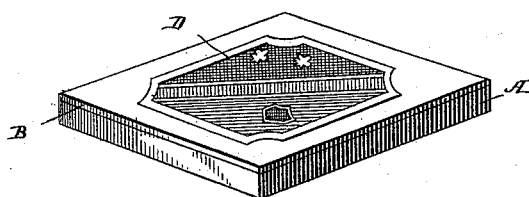
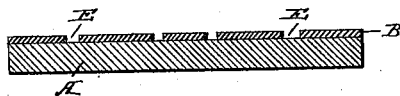


Fig. 4.



Attest:

*Wm. C. Hinckley Jr.
Sidney L. Johnson*

John Baynes
Inventor:
by
Foster & Freeman
Attys

UNITED STATES PATENT OFFICE.

JOHN BAYNES, OF WESTCHESTER COUNTY, ASSIGNOR OF ONE-FOURTH TO
LOCKWOOD DE FOREST, OF OYSTER BAY, NEW YORK.

DIRECT-PRINTED ADHESIVE NEGATIVE.

SPECIFICATION forming part of Letters Patent No. 418,675, dated January 7, 1890.

Application filed May 21, 1887. Serial No. 238,991. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAYNES, a subject of the Queen of Great Britain, and a resident of the county of Westchester, in the State of New York, United States of America, have invented certain new and useful Improvements in Direct-Printed Adhesive Negatives, of which the following is a specification.

My invention relates to improved methods of ornamentation of various articles; and it consists in the use of what I term "direct-printed adhesive negatives."

In carrying out my invention I take a plate, block, or article to be ornamented, and, after properly cleaning it, I coat it evenly with an acid-resist that is sensitive to the action of light, preferably an asphaltum resist. I then apply the pattern directly to the resist by passing the plate or article, if of proper shape, through a lithographic press or by printing the pattern by blocks or suitable devices. The pattern may be formed in relief or intaglio, so that the portions of the resist which are not to be exposed to the influence of light and which correspond to the configuration of the ornamentation desired will be covered by the ink. The coating of ink should be of such a character as to obstruct the passage of the light-rays and prevent them from perceptibly affecting the sensitive resist. This having been done, the plate or article with the printed pattern is exposed to light in any ordinary manner, and it is then developed, as usual, by washing or dissolving away or otherwise removing the portions of the resist covered by the ink which have remained unaffected by light, leaving the plate or article covered with the undissolved acid-resist, except the portions of the plate conforming to the desired ornamentation which are exposed. The plate or article is now ready to be treated by etching or any other desired process of erosion, after which the acid-resist may be dissolved or washed away, as by immersion in a bath of oil of turpentine, or otherwise, according to the nature of the resist.

In the accompanying drawings, Figure 1 is a

representation of a plate covered with the acid-resist B. Fig. 2 represents the block or lithographic stone C, having a printing-surface of the desired configuration covered with ink. Fig. 3 represents the plate A, covered with the resist B, and having the desired configuration D printed thereon in ink; and Fig. 4 is a cross-section of the plate A with the portions of the resist B affected by light remaining on its face, while the portions E of the plate corresponding with the pattern are exposed ready to be treated by etching or otherwise.

It will thus be seen that by a very simple and cheap process I am enabled to produce the desired ornamentation on the article, as the pattern can be readily formed on the printing-surface and be reproduced upon the resist by simply subjecting it to a printing operation. As I use no transfer-paper or other medium of any kind, the light is not obstructed in its passage to the unprotected portions of the resist, and consequently will act more quickly, and will also give a better result along the edges, as the borders will be sharper and more even when they are formed by the ink which has been deposited from the edges of a pattern than in any other way. As the slightest unevenness of outline is reproduced and probably increased by the action of the acid upon the object to be ornamented after the pattern has been washed out of the resist, the importance of having the borders as sharp as possible becomes apparent. I am also able to reproduce the pattern by my process as many times as desired—that is, I can ornament any desired number of articles from the same pattern—and have them all alike, which could not be done if the pattern were destroyed in removing it from the resist, as this would necessitate a new pattern for each article to be ornamented, with all its attendant cost and liability of change and alteration from the original.

What I claim is—

The within-described process of ornamenting metal or other articles, which consists in coating the article with an acid-resist which

is sensitive to the influence of light, printing
the design from a permanent pattern di-
rectly on the resist, exposing the plate to the
influence of light, and then removing the
5 parts of the resist corresponding to the parts
printed, and then ornamenting the exposed
portions in the desired manner, substantially
as described.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

JOHN BAYNES.

Witnesses:

P. KEMBLE, Jr.,

BERNARD J. KELLY.