

W. SANDERSON.
Processes of Ornamenting Composition Molded
Articles.

No. 146,479.

Patented Jan. 13, 1874.

Fig. 1.

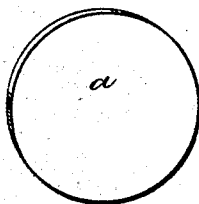


Fig. 2.



Fig. 3.



Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM SANDERSON, OF NEW YORK, N. Y.

IMPROVEMENT IN THE PROCESSES OF ORNAMENTING COMPOSITION MOLDED ARTICLES.

Specification forming part of Letters Patent No. **146,479**, dated January 13, 1874; application filed June 5, 1873.

CASE A.

To all whom it may concern:

Be it known that I, WILLIAM SANDERSON, of New York city, in the State of New York, have invented a new Process of Producing Designs on Composition Surfaces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this application.

Previous to my invention checks for restaurants and other places, key-checks, door-numbers, drawer-labels, and a variety of such articles have been made of various patterns, and with designs, numbers, letters, &c., produced by different processes upon their surfaces. In the manufacture of all such articles it is a great desideratum to have the figures or design, whatever it may be, so combined with or produced on the composition surface as to be as lasting or durable as possible, while, at the same time, the article can be afforded at the least possible cost. To combine, in the manufacture of all such articles, these two advantages in the most eminent degree is the main object of my invention, which, to this end, consists in printing, embossing, or otherwise producing on thin paper the desired design, and then uniting such paper-design with the composition, check, name-plate, or other article, by the aid of any suitable adhesive mixture, and by subjecting the parts to be united to compression in heated dies, as will be hereinafter more fully described.

To enable those skilled in the art to make and use my invention, I will now more particularly describe my new process, referring, for illustration, to the accompanying drawings, in which—

I have shown at Figure 1 a circular check, molded of any of the well-known and suitable compositions, in imitation of ivory. At Fig. 2 is a view of a piece of thin paper with the number or design printed thereon. At Fig. 3 is a view of a finished check with the number on; and at Fig. 4 is a sectional view, on an exaggerated scale, illustrating the manner in which the parts composing the finished article are combined or put together.

In carrying out my invention, I make the check, name-plate, door-number, or other arti-

cle by molding it in dies in the usual manner, and from a composition or compound suitable for the purpose. (Any of the compounds of factitious ivory, or the composition used for making door-knobs and other articles, may be employed in practicing my new process.) I then take thin paper, either transparent or semi-transparent by preference, or silk, and either print, cut out, or otherwise produce on or in the paper or silk any desired design, number, &c., which I desire shall be presented on the surface of the composition article; and this paper-design I unite temporarily with the surface of the composition with some white shellac, varnish, or other suitable adhesive material, applied with a brush. I then place the combined elements in the die in which the composition was molded, or a duplicate die, having first heated the die, and, placing the die with its contents in a screw or hydraulic press, I subject it to a heavy pressure, by which the paper and composition are not only perfectly and inseparably united, but by which the varnish or other material coated between the paper and composition is struck through the paper. When the finished article is removed from the die, not only is the paper-design perfectly united with the composition, but the surface presents a highly-polished appearance.

In practicing my process of manufacture, I sometimes use perfectly-transparent paper, which is preferable where the design is united with a surface composed of white composition, and the paper-design has a white ground. At other times I, under circumstances, prefer that the paper be only translucent or opaque. In lieu of paper, linen or other textile material may be used. The design, when printed on the paper, may be made either on the outer or exposed surface of the paper, or it may be printed in reverse on the surface which is placed next to the composition. In either way the result is substantially the same. Before subjecting the article to the action of the press in the heated dies, the exposed or outer surface of the paper may be coated over with varnish; but I find, in practice, that without this the coating or layer of varnish put on between

the paper and composition strikes through and produces on the outer face of the paper a polished and impervious face, which protects the design on the paper sufficiently.

It will be understood that, when the composition check *a* has the paper-design *b* united or applied, as seen at Fig. 3, its paper surface presents a comparatively rough appearance, and the two parts are simply held together by the interposed coating of varnish, (illustrated by the heavy black line in Fig. 4,) and that, after subjection to compression in the heated dies, the thin layer of interposed varnish strikes through the paper, the paper and composition become as a solid mass, and the surface of the finished article is highly finished, both where the paper and where the composition present themselves.

It will be readily understood that, in carrying out my invention, the described process may be employed in the manufacture of an almost infinite variety of composition-molded articles, and that the character of the paper and the nature of the designs produced may be innumerable.

Having so fully explained the mode of manufacture by which I am enabled to produce such articles with any design of any suitable composition, and so that when finished the article shall possess the qualifications of beauty of appearance with durability, and by which the product can be supplied at comparatively small cost, what I claim as new, and desire to secure by Letters Patent, is—

The process hereinbefore described of ornamenting composition-molded articles, consisting essentially in combining, with the molded article, (whatever it may be,) paper having a design printed, painted, stamped, or otherwise placed thereon, the union and finish of said paper-design, and its composition base or body, being effected by compression between heated dies, substantially as described, for the purpose set forth.

WILLIAM SANDERSON. [L. S.]

In the presences of—
J. N. MCINTIRE,
JACOB FELBEL.