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DECORATED COVERING AND PROCESS OF MAKING THE SAME.
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Fig. 1

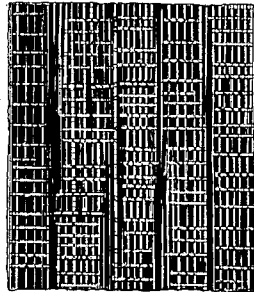


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

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DECORATED COVERING AND PROCESS OF MAKING THE SAME.

1,044,323.

Specification of Letters Patent.

Patented Nov. 12, 1912.

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To all whom it may concern:

Be it known that I, JOSEPH N. WIGGIN, of East Orange, in the county of Essex, and in the State of New Jersey, have invented a certain new and useful Improvement in Decorated Coverings and Processes of Making the Same, and do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention has been to provide a decorated covering of sheet material, for use in covering books and walls, and for other purposes as a covering, and to provide a process of making the same; and to such ends my invention consists in the decorated covering and process of making the same hereinafter specified.

In the accompanying drawings, Figure 1 represents a face view of a covering showing one embodiment of my invention; and Fig. 2 represents a sectional view of Fig. 1.

My invention is applicable to decorated coverings made of fabric, paper, and other sheet materials, and to the making of the same, and while it is especially adapted for use in covering books and walls, it may also be used for many other purposes. The decoration of my material may take many different forms. For instance, the appearance of the grain of various woods can be reproduced, the appearance of leather, the "grass" effect in cloth can be reproduced, the effect of birch-bark can be simulated, and the effect of a woven fabric having an unblemished weave can be produced.

While by means of my process my covering can be given any of the above enumerated forms of decoration, and many others not enumerated, I shall illustrate my process and covering by describing the production of a covering having artificially produced thereon the optical effect of a woven fabric having an unblemished weave.

Prior to my invention woven goods have been coated with color and a prominent thread-effect produced by removing the surplus of the color from the top of the threads, the threads thus being left more or less uncolored. Thus a strong contrast between the body of the goods and the tops of the threads has been produced and the weaving has thus been brought into prominence. This result, however, was dependent entirely upon the character of the threads of the woven fabric. It is a well-known fact

that there are more or less imperfections in the weaving of woven fabrics, and by the described process the imperfections are exaggerated. Moreover, when these fabrics are pasted on a large surface, such as a wall, the skewing and irregular directions of the threads become much more objectionable than would be the case on a small surface. In any event, the effect obtained is limited by the character of the weaving.

My covering made by my process enables me to produce, at a low cost, an artificial thread-effect which is free from blemishes in weaving, and which at the same time has an optical effect approaching that of natural weaving. Briefly, I emboss in sheet material (which may be a woven fabric, paper, or other sheet material) a thread-effect of the shape of that desired, and I then apply to such embossed surface a color mixture, and either at the same time as said color mixture is applied, or afterward, entirely or partially remove such color from the raised surfaces produced by said embossing.

More specifically, I first treat the fabric, if necessary, by any process, such as sizing, which will prepare the goods to retain the embossing during the step of removing the color from the high portions of the embossing. This will usually be done by sizing the goods and applying a filler to the back, the object of the filling being to facilitate the handling of the goods when either glued or pasted to book covers or walls. The object of the sizing (which may be colored or uncolored) is to so harden the surface of the goods that they may retain the embossing for such length of time as is necessary to receive the color and to remove the same from the raised portions thereof. After the goods are thus prepared, I then emboss the desired thread-effect, or other design, upon the fabric. At the time of embossing, the fabric may be either dry or damp, depending upon the nature of the goods; but the goods are usually damp. A coating of color may, if desired, be applied to the goods either before or after the embossing. I then put on the top color, which may be either lighter or darker than the next color underneath. The colors used may be either transparent or opaque, as preferred. As an example of a transparent color suitable for the top color, the fol-

lowing formula may be given: One part glue is dissolved in four parts of boiling water. To this is added three parts of cornstarch solution, made by expanding one part
 5 of pure cornstarch in four parts of boiling water. To the mixture thus obtained is added the necessary color matter.

Following the application of the top color, and preferably at the same operation with
 10 it, the color is removed from the highest portions of the embossing. This removal of the color may be effected either by a scraper, or by what is known as a Scotch mangle, or by any other suitable device.

15 By making the relief embossing occupy a larger or smaller area of the fabric, the amount of scraped area may be controlled, and by adjusting the pressure of the scraper, the amount of upper color scraped off may
 20 be controlled. By means of these two factors, the degree to which the base color shows through the top color may be controlled, and in this manner the degree of contrast may be controlled. Thus with the
 25 same colors and the same fabric, widely different effects may be produced.

It is not essential that the fabric be so heavy as to retain the embossing after the scraping operation is over, it being sufficient
 30 if the embossing be present at the time of the scraping operation, even though it immediately after wilt down. I am thus enabled, if desired, to use a fabric of such light weight that the embossing disappears
 35 immediately after the removal of the color.

My covering produced by my process has, among others, the following advantages: The effect of the perfect weaving is produced, even though the covering be made of
 40 a fabric having imperfect weaving therein, as the natural weaving does not appear in the final product. No skewing or twisting of the threads of the fabric can mar the final effect, and thus a large area of wall
 45 covered with such fabric has a pleasing effect, a result practically impossible if the natural weaving were depended upon. The scraped areas need not be sharply delineated, and thus the color of the scraped areas may
 50 be blended into the unscraped intaglio portions, so that an artistic effect can be produced much softer than could be produced

by printing a single color in place of scraping the raised portions.

The embodiment of my invention which I
 55 have described will be seen to comprise a pattern having its surface covered by elevations and depressions in general continuity whereby a general uniform play of
 60 light and shade over the surface is obtained.

While I have illustrated my invention as applied to the imitation of the thread-effect, it is to be understood that embossing to produce any other desired decorative effects may
 65 be used.

By the term "fabric" in the claims is meant any sheet material made of fiber, such as cloth, paper, etc. By the term "dried," as applied in the claims, is meant such a
 70 change of condition of the color as would render it difficult to properly remove it from the elevations.

I claim:

1. The process of making a covering from a fabric, consisting in embossing a pattern
 75 of elevations and depressions in general continuity on a side of said fabric, then applying color to said side and then removing the color from the elevations, merely.

2. The process of making a covering of
 80 woven fabric, consisting in stiffening said fabric, then embossing a thread effect thereon, then applying color to its surface, and then removing the color from the elevations of the embossing.

3. A coated fabric covering comprising a flexible, fibrous sheet having a pattern of elevations and depressions in general continuity embossed on one side thereof, and having
 90 color applied to the intaglio portions, said color not covering the elevations of said embossing to the same depth.

4. A coated fabric covering, comprising a woven and stiffened fabric having a thread
 95 effect embossed thereon, and having color applied to the intaglio portions the tops of the embossings being free from said color.

In testimony that I claim the foregoing I have hereunto set my hand.

JOSEPH N. WIGGIN.

Witnesses:

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