Oct. 9, 1923. 1,470,535

F. A. KOLB

METHOD OF DECORATING LEATHER OR SIMILAR MATERIAL

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Fig. 1.

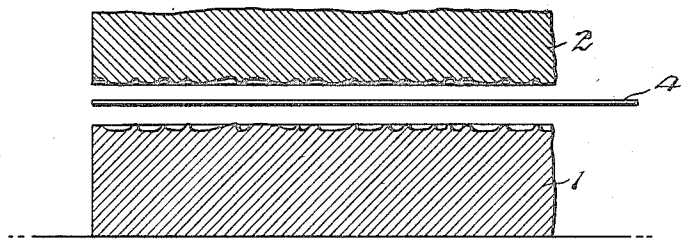


Fig. 2.

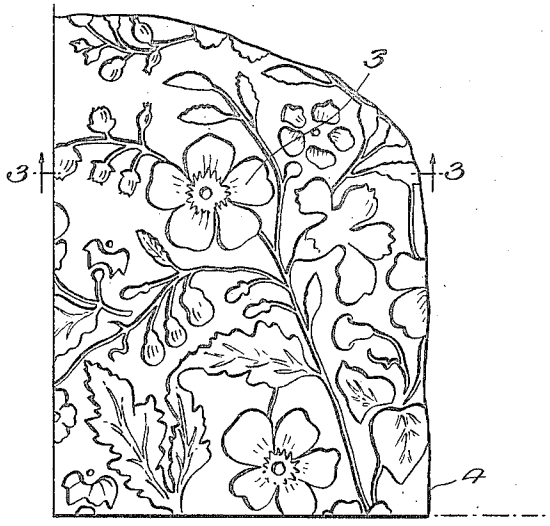


Fig. 4.

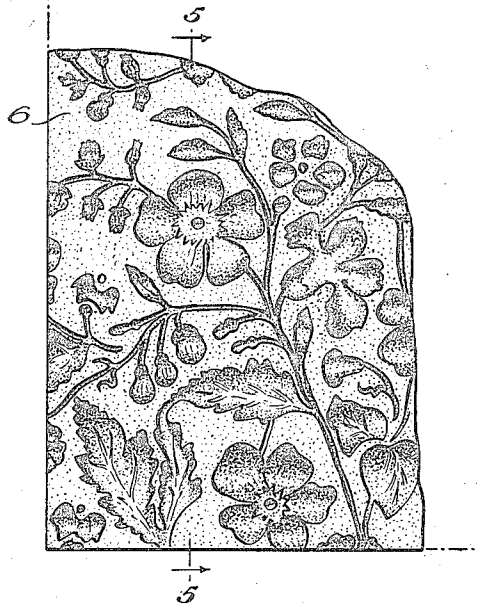
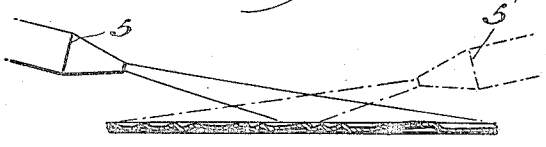


Fig. 3.



Fig. 5.



WITNESSES

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Fig. 7.

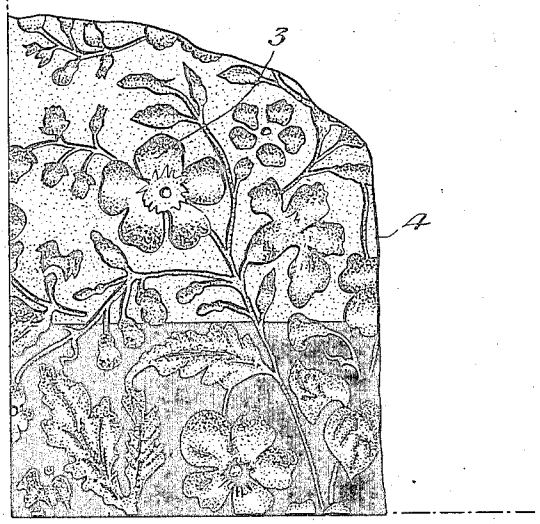


Fig. 9.

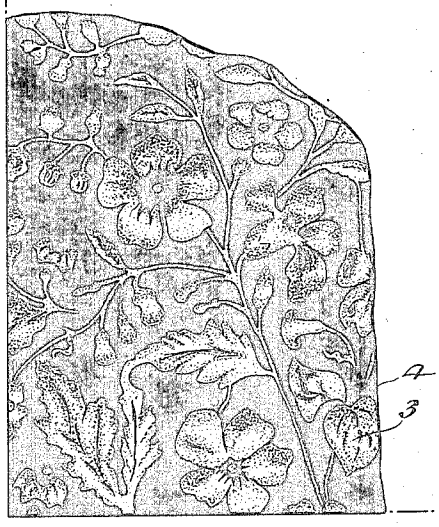


Fig. 6.

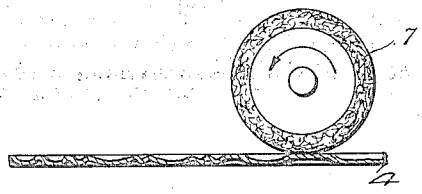
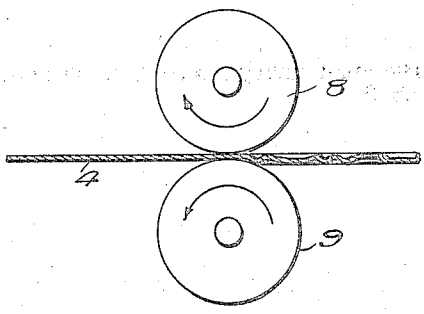


Fig. 8.



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UNITED STATES PATENT OFFICE.

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METHOD OF DECORATING LEATHER OR SIMILAR MATERIAL.

Application filed June 3, 1922. Serial No. 565,560.

To all whom it may concern:

Be it known that I, FRED A. KOLB, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Method of Decorating Leather or Similar Material, of which the following is a full, clear, and exact description.

This invention relates to ornamenting leather and similar material and particularly to the method of producing the ornamentation.

The object of the invention is to provide by mechanical means an ornamentation on leather or other material which has the appearance of a lithographic reproduction.

Another object of the invention is to provide an improved method whereby substantially any design may be easily applied to a piece of leather and provided with a surrounding background of any color.

In carrying out the invention, a number of different devices may be used but to illustrate one set of devices and the steps of producing a finished article, certain representations have been presented in the accompanying drawings, in which

Figure 1 is a fragmentary sectional view showing dies and a piece of material about to be stamped.

Figure 2 is a plan view showing part of the stamped material after it has been operated on by the dies shown in Figure 1.

Figure 3 is a sectional view through Figure 2 on line 3—3.

Figure 4 is a view similar to Figure 2 after the ornamenting colored matter has been applied.

Figure 5 is a sectional view through Figure 4 approximately on line 5—5, sprays for depositing coloring matter being shown in connection therewith.

Figure 6 is a sectional view similar to Figure 5, a roller being shown in connection therewith for indicating how a background may be applied.

Figure 7 is a plan view of the leather shown in Figure 6, the same illustrating by the solid black portion how far the roller has applied the background.

Figure 8 is a view showing how the leather shown in Figure 7 is passed through rollers for flattening and straightening the same and thereby remove the embossed portions produced by the dies shown in Figure 1.

Figure 9 shows the finished product with the ornamentation properly colored and with a solid background surrounding the ornamentation.

Referring to the accompanying drawings by numeral, 1 and 2 represent the dies which may be of any desired construction to provide a suitable ornamentation 3 as shown in Figure 2. This ornamentation is an embossing on the sheet 4 of leather or other material. The method is intended to ornament leather, artificial leather, fiber or other similar material and when the term "leather" is used it will be understood that any material which may be operated on will be included.

When using the dies 1 and 2, flowers or other ornamentation 3 are provided, said flowers being embossed or pressed out on one side and inward on the opposite side so that the ornamentation will be depressed. In ornamenting leather, it has been found substantially impossble to lithograph thereon and, consequently, the beautiful effects produced by lithographing cannot be applied. In the present invention, it is intended to produce the same appearance as lithographing will produce when done in a very high class manner.

To accomplish this result, an air brush 5 is used to spray coloring matter on to the depressed side of the leather 4 as shown in Figure 5, said air brush being arranged at a certain angle so that the coloring matter on one side of the depression will be of the color or shade produced by the coloring matter discharged from brush 5 while on the opposite side of the depression a different color may be used by using the air brush 5′. For instance, pink may be used by one air brush and a certain shade of green by the opposite air brush so that there will be a decided pink on one side of the ornamentation and a decided green on the opposite side with a gradual merging of these two towards the center. It is, of course, understood that by a proper manipulation of the air brushes, any desired shading may be produced.

When using the air brushes, attention is maintained in respect to the sunken portions or ornamentation provided by the die but as far as the background 6 is concerned, no attention is paid as depositing more or less of the coloring matter thereon will not effect the final result shown in Figure 9. It is, of course, evident that one color could be used

instead of two or if desired, more than two colors could be sprayed on to the sheet of leather 4 in order to secure the desired coloring of the ornamentation thereon. After the desired coloring has been applied to the ornamentation, the background 6 is then provided with a solid color as shown in Figure 7. This color in the drawing has been shown as black but it is evident that any solid color could be used.

As the ornamentation 3 is sunken, the background 6 will be higher and, consequently, when the roller 7 is moved over the leather 4 and in contact therewith, said roller will apply coloring matter only to the high points, namely, the background 6. After the background has been treated to change the color, the sunken ornamentation is then raised or moved to a position flush with the background 6. This restoring of the sheet 4 to its original condition and consequent elimination of the embossing may be done in a number of different ways, as for instance, by feeding the leather 4 through squeezing rollers 8 and 9 which will press the embossed surface back into its original place and, consequently, the ornamentation 3 will be flush with the surface 6 but will, of course, retain its coloring matter as provided by the brushes 5 and 5′ so that the finished product will appear as shown in Figure 9 with properly colored ornamentation surrounded by background all on the same plane.

After the leather has been ornamented as shown in Figure 6, it is ready for use and may be used for ladies' hand bags, paneling and for a large number of other purposes. In the accompanying drawings, flowers have been shown as the ornamentation but it is evident that any desired configuration or ornamentation may be provided according to the same method.

What I claim is:—

1. The method of producing ornamented leather sheets, comprising forming depressed ornamentations on a sheet of leather, coloring said depressed ornamentations, treating part of the sheet not depressed for producing a desired surface, and then causing the depressed portions to assume their former position.

2. The method of ornamenting leather, comprising forming depressions in the leather by the actions of a die, coloring said depressions, moving a surfacing member over said leather for producing a desired surface around said depressions and over the entire piece of leather except at the point of depression, and finally causing said depressions to be moved back to their original position flush with the treated surface.

3. The method of ornamenting leather, comprising pressing ornamentations in the surface of a piece of leather, spraying coloring matter on said piece of leather over the entire surface whereby the depressed ornamentation will be colored and the background between the ornamentation will be colored, moving a surfacing member over said piece of leather in engagement with the high points thereof whereby a background is formed around and between said depressions, and finally acting on said depressions for causing the same to move back to their former position.

4. The method of producing ornamental leather, comprising pressing by a die the surface of a piece of leather to produce depressed ornamentations thereon, depositing a plurality of different supplies of colored matter on the entire surface of said piece of leather through the action of differently directed air brushes moving a member having colored matter thereon over said pieces of leather for coloring all parts of the leather not depressed, and finally acting on the depressed portions of leather to force them back to their former position.

FRED ANTHONY KOLB.