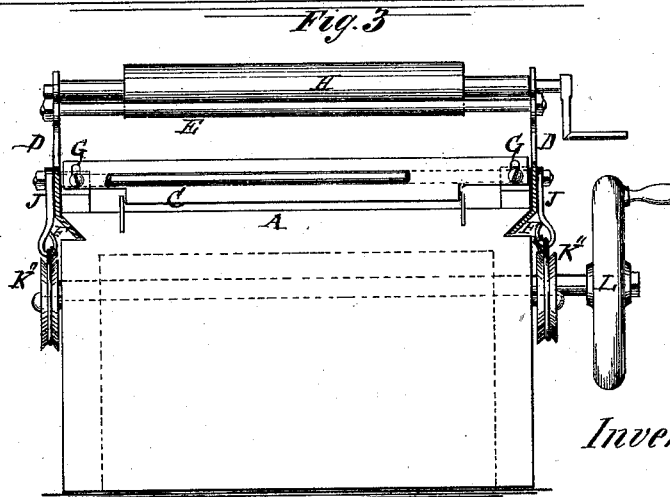
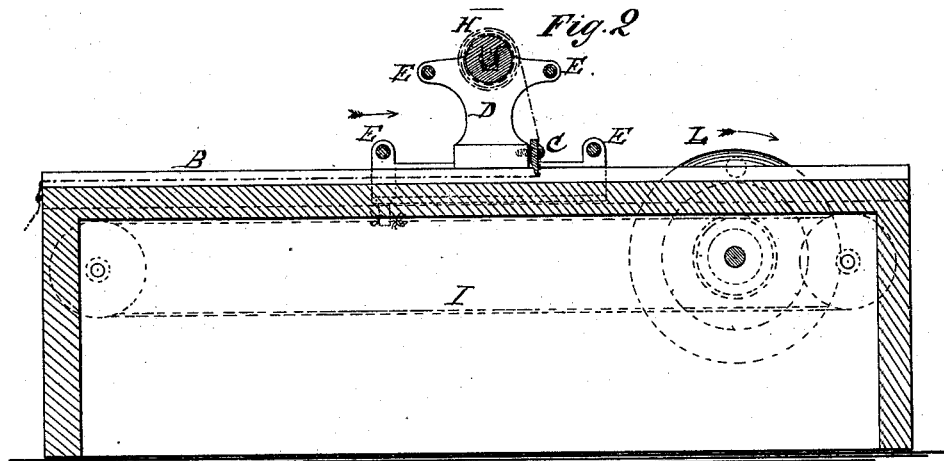
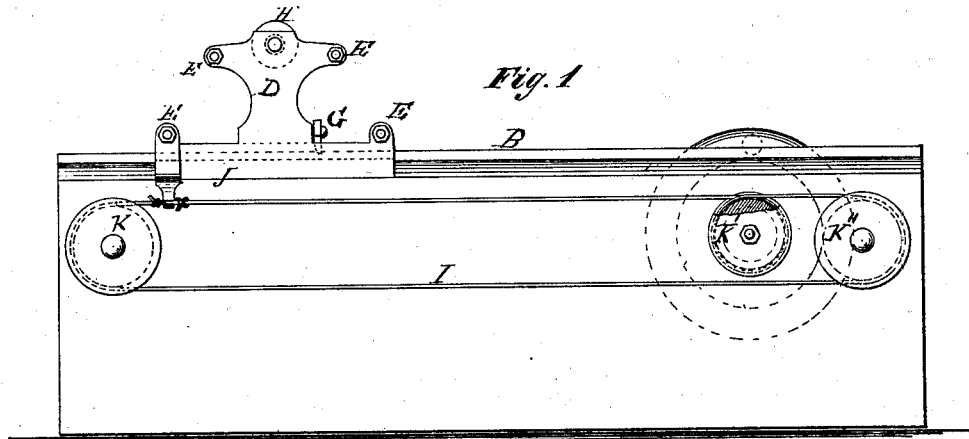


C. H. KNELLES.

Manufacture of Imitation Fabric.

No. 165,420.

Patented July 13, 1875.



Witnesses:

K. Newell
James Hunter

Inventor:

Chas. H. Knelles.

UNITED STATES PATENT OFFICE

CHARLES H. KNELLES, OF NEW YORK, N. Y., ASSIGNOR TO NEW YORK
MANUFACTURING LEATHER COMPANY, OF SAME PLACE.

IMPROVEMENT IN THE MANUFACTURE OF IMITATION FABRICS.

Specification forming part of Letters Patent No. **165,420**, dated July 13, 1875; application filed
December 4, 1874.

To all whom it may concern:

Be it known that I, CHARLES H. KNELLES, of the city, county, and State of New York, have invented certain new and Improved Processes for the Manufacture of Imitation Fabrics, also apparatus connected therewith, of which the following is a description, reference being had to the drawings accompanying and forming part of this specification.

This invention consists in a process for preparing the molds to be used in producing imitation leather, morocco, damask, and such other fabrics as are referred to in a patent granted to William Bell on the 28th day of July, 1874, and for producing the fabric from such molds; also, in an apparatus to be used in the carrying out of said process.

The accompanying drawings illustrate the apparatus which I propose to use in the carrying out of these respective processes.

Figure 1 is a side view. Fig. 2 is a longitudinal central section. Fig. 3 is an end view.

A is the surface of a table or other proper structure, which is level and sufficiently long to contain the mold. B B are two guide-rails inserted in grooves made in such surface, and running lengthwise of the table. Between these rails, and at right angles thereto, is suspended a steel blade, C, with a rounded bottom or dull edge. This blade is attached to a frame extending across the table, composed of the ends D D, connected together by the rods E E E E. This frame runs in grooves F F, made in the edges of the table, that are parallel to the guide-rails. At the points G G the ends of the blade C are secured by set-screws, such ends being slotted to admit of the blade being moved up or down, as required for adjustment. At the top of the frame, and nearly above the blade C, is placed a roller, H, on which is wound the article used as a backing to the fabric proposed to be manufactured. The frame is moved back and forth over the table by means of an endless cord, I, or its equivalent, attached to an arm, J, at one of the sides of the frame, and running over pulleys K K' K'. To the latter pulley is attached a hand-wheel, L, by which the frame is operated in either direction.

The mold is prepared as follows: First oil a

piece of leather, or figured silk or paper, or other article from which it is desired to obtain a mold, and then take a reverse therefrom in the following manner, namely: Pour the compound which it is desired to make the mold of onto the article so oiled, and placed on the table with the oiled side uppermost in front of the blade, said blade being at one end of the table, and gaged above the article to be covered the thickness it is required to have the mold. Then move after the compound, as it is being so applied, the frame containing such blade. This will cause the blade to spread the compound evenly over the face of the article, and to the required thickness, and also to move forward out of the way the surplus compound, until the whole of the article on the table is covered, which operation is completed as soon as the blade has reached the opposite end of the table.

As soon as the compound has had sufficient time to set it can be drawn back from off the article so flowed with it, thus producing a mold with the reverse of the pattern contained on the article from which it is made. This mold, so obtained, or one which has been engraved or otherwise specially prepared for the purpose, is then used for the production of the imitation fabric in the following manner: Remove the piece of silk, or leather, or other article from the table, and lay thereon instead the mold, with the pattern side uppermost. This mold has its surface rubbed with oil or other equivalent material. The frame containing the blade is removed to the end of the table, so that the mold will lie wholly in front of the blade. There is placed on the roller of the frame the muslin, silk, or paper, or other fabric desired to be used as a backing for the imitation fabric about to be produced. The blade is adjusted by the set-screws, so that the space between its edge and the face of the mold will be equal to the combined thickness of the backing of the fabric and coating of the compound desired to be placed on such backing. The end of the backing for the fabric is then brought down underneath the edge of the blade, and fastened or clamped to the rear end of the table. The operator then commences to pour the composition onto the face of the

mold and in front of the blade containing the backing on its edge, and the blade is then moved slowly forward over the table. The backing for the fabric slowly unwinds, and comes in contact with the composition, and the blade operates on such composition, with the backing between, leveling the surface of the compound, so as to completely fill up the face of the mold therewith, until said blade reaches the other end of the table, at same time laying the backing evenly onto the composition. The backing is cut at or near the edge of the table so reached, and, after allowing time for the composition to set, the piece of imitation fabric thus formed is stripped from off the face of the mold. Thus there is produced a fabric with a backing on one side and a surface on the other, such surface being the reverse in design of that in the mold, and the fac-simile of the piece of leather, silk, or other article

originally operated upon to obtain such mold, if a mold made from an article as hereinbefore described has been employed.

I claim—

1. The process of producing a fabric from a mold in the manner described, so that the compound and the backing shall be applied to the face of the mold at the same time, substantially as set forth.

2. The combination of a blade suspended in a frame above a table a distance of the thickness of a mold and the compound and backing composing the fabric, in combination with a roller for carrying the backing, and with the said table such frame being capable of motion across the table, substantially as described.

CHAS. H. KNELLES.

Witnesses:

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