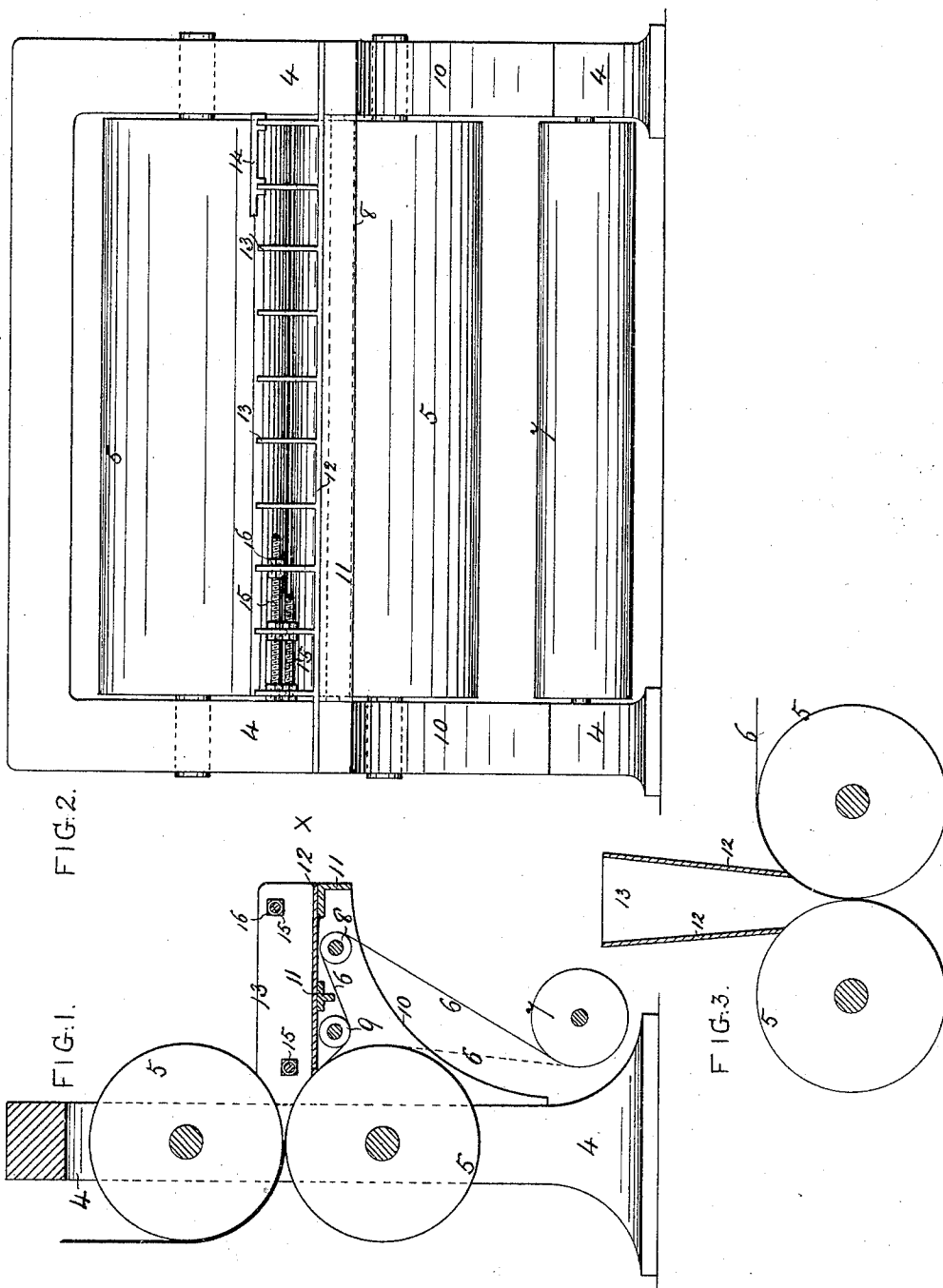


(No Model.)

T. MITCHELL.
ART OF MANUFACTURING LINOLEUM, &c.

No. 467,378.

Patented Jan. 19, 1892.



WITNESSES.

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ART OF MANUFACTURING LINOLEUM, &c.

SPECIFICATION forming part of Letters Patent No. 467,378, dated January 19, 1892.

Application filed March 19, 1891. Serial No. 385,711. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MITCHELL, manufacturer, a subject of the Queen of Great Britain and Ireland, and a resident of London, England, have invented certain Improvements in the Art of Manufacturing Linoleum and Like Floor-Cloths, of which the following is a specification.

The object of this invention is to obtain, in the manner hereinafter referred to, variously-colored stripe-patterned linoleum or like floor-cloths, in which the pattern will be continuous through the substance of the linoleum or like material, and will consequently be indelible and not liable to partial or complete obliteration under varying wear, to which surface-printed linoleum and like floor-coverings are necessarily subject.

In carrying out the invention the linoleum or like material is prepared in a plastic condition in a usual manner, but in such varying colors and relative quantities as may be required to produce the intended stripe pattern and desired quantity of floor-cloth, and the patterning of the floor-cloth is effected simultaneously with the manufacture thereof, substantially in the manner and by the means hereinafter referred to.

In the accompanying drawings, Figure 1 represents in sectional elevation a linoleum calendering apparatus or rolling-mill supplied with the striping apparatus. Fig. 2 represents a front elevation thereof, and Fig. 3 represents a modification.

4 represents side standards supporting the usual heated calender-rolls 5, by which the dough-like linoleum or like material is rolled down into the required thickness and onto the canvas backing 6, the necessary pressure being applied and the backing being supported by an under roller 7 in a usual manner.

8 represents a roller over which the backing is passed from the roller 7, and 9 represents a similarly-disposed roller under which the backing is passed from the roller 8, so as to be guided in such a manner as to partly encircle and be supported by the lower calendering-roll 5, or the canvas backing may pass directly from the roller 7 to the roll 5, as indicated by the dotted lines, so as to be supported thereby and move therewith.

10 represents framings, which may be bolted

to the usual standards 4 and connected by transverse bearers 11, adapted to support a rigid bed-plate 12, which extends in the direction of its length the full length of the calender-rolls and in the direction of its width from closely adjacent to the lower calender-roll to as far forward—that is, toward the attendant standing at *x*, and feeding the dough-like linoleum onto the bed-plate 12—as may be required. The bed-plate is situated at an elevation sufficiently below the passage between the rolls 5 to leave exposed a sufficient portion of the lower calender-roll covered by the canvas to insure a continuous drawing in of the linoleum material by the feeding motion of the calender-rolls upon the backing. The bed-plate is also formed or provided with a series of any required number of vertical division-plates 13, which may be set at any required equal distances or at various distances apart, according to the widths or varied widths of the stripes of the pattern required to be produced, and such plates may be flanged and project through slots in and riveted or otherwise secured to the bed-plate in any suitable manner, their upper parts being, if required, also supported against any liability of lateral displacement, due to the action of the calender-rolls pressing the excess of linoleum material backward in the act of rolling the material used onto and into the fabric of the backing, by transverse gage-bars 14 dropping thereonto, or by screwed rods 15, passed through a series of holes in alignment formed in the division-plates 13 and adapted with set-nuts 16 for supporting each such plate 13 on each side. The forward ends of the division-plates 13 are accurately curved to the contour of the calender-rolls and extend as far as possible into the passage or gateway between such rolls, truly fitting and directly bearing against the revolving surface of the upper roll and against the canvas supported by the lower roll, and so separating the differently-colored adjacent strips of linoleum material until the moment that such material is drawn by the canvas backing between such rolls, which simultaneously compress the adjacent strips of linoleum material onto and into the fabric of the backing, consolidating the edges of such strips and rendering the material homogeneous throughout, so that the

canvas and linoleum material issue from the rolls as a stripe-patterned floor-cloth or the like, in which the pattern is continuous through the substance of the linoleum and is produced simultaneously with the manufacture of the floor-cloth.

The rolls 5, instead of being arranged in a vertical plane, may be arranged in a horizontal plane, in which event the partitions 13 would extend between opposite side plates 12, (*vide* Fig. 3,) so that such plates 12 and partitions 13 would constitute a vertically-disposed hopper.

It is to be understood that the partitions 13, whether arranged as shown in Fig. 1 or as shown in Fig. 3, can have applied to them the bars or rods to hold them against lateral movement, as said plates 13 in either form may be adjustable to or from each other.

I claim as my invention—

1. The within-described method of manufacturing linoleum and like floor-coverings, which consists in feeding differently-colored adjacent strips of plastic linoleum material, separately guided, to the traveling backing for the linoleum material and simultaneously compressing such separately-guided adjacent strips of plastic material as they enter the uniting and consolidating mechanism onto and into the said traveling fabric, whereby the pattern, produced simultaneously with the manufacture of the floor-covering, is caused

to extend continuous through the linoleum or like material, substantially as set forth.

2. In the manufacture of a variously-colored stripe-patterned linoleum or like floor-covering, the combination, with a pair of calendering-rolls between which the backing for the linoleum material travels, of a suitably-supported partitioned frame extending into the passage or gateway between such rolls, the forward ends of the partitions of such frame resting in proximity to the surface of said rolls, whereby the differently-colored adjacent strips of linoleum material are separated until the moment that such material is drawn by the traveling backing between the rolls, substantially as and for the purpose set forth.

3. The combination, with a pair of calendering-rolls, of a bed-plate 12, provided with a series of adjustable vertical division-plates, and bars or rods supporting such division-plates against lateral displacement, substantially as set forth.

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

THOMAS MITCHELL.

Witnesses:

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