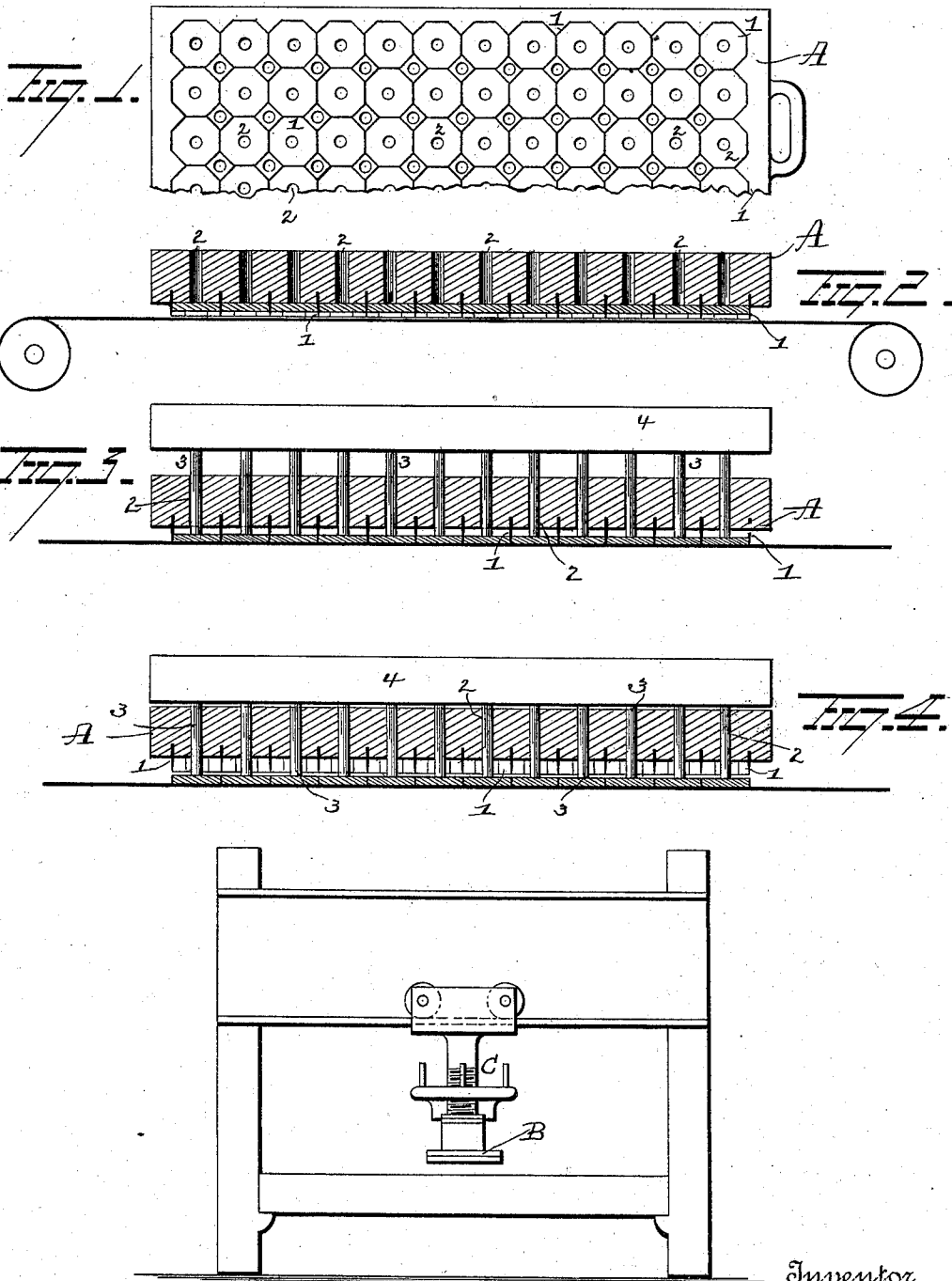


(No Model.)

D. N. MELVIN.
METHOD OF MANUFACTURING LINOLEUM.

No. 535,453.

Patented Mar. 12, 1895.



Witnesses
E. A. Northrup
G. F. Downing

Fig. 5.

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UNITED STATES PATENT OFFICE.

DAVID N. MELVIN, OF LINOLEUMVILLE, NEW YORK.

METHOD OF MANUFACTURING LINOLEUM.

SPECIFICATION forming part of Letters Patent No. 535,453, dated March 12, 1895.

Application filed January 5, 1895. Serial No. 533,936. (No specimens.)

To all whom it may concern:

Be it known that I, DAVID N. MELVIN, of Linoleumville, in the county of Richmond and State of New York, have invented certain
5 new and useful Improvements in Methods of Manufacturing Linoleum; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as
10 it appertains to make and use the same.

My invention relates to an improvement in the method of manufacturing linoleum, and it consists in simplifying the methods heretofore practiced. In my former patent, No.
15 412,279, granted October 8, 1889, a method was described in which sheets of linoleum composition were cut into tesserae, then inserted by hand into a printing block and from the printing block transferred to the canvas.
20 In my present invention, the printing block is dispensed with altogether and the process is simplified and made less expensive by discharging unoxidized tesserae direct upon the canvas and making them adhere thereto suffi-
25 ciently at points in their surface to hold them in place until they can be given a final pressure to make them adhere permanently to the canvas or flexible foundation. In addition to my own patent there is one to Walton, No.
30 16,338, granted in England in 1888 in which is shown and described a cutting block having plungers therein which fit the spaces between the cutting knives and are adapted to press out the tesserae and set them upon the
35 canvas or flexible foundation. In this English patent a composition of linoleum a little more tacky in consistency than that of which the tesserae are formed, is spread upon the canvas or flexible foundation and the tesserae
40 are simply forced out of the cutting block and in forcing them out they are set upon this tacky substance but they are not pressed thereon so that a part of the tesserae themselves is pressed into the interstices of the
45 canvas. Hence in the process referred to no compression of the tesserae takes place and if the tacky substance were omitted and pressure were applied from the plungers it would have to be a much greater pressure than is
50 required in my improved process because it extends over the whole surface of each tessera thus increasing the expense in this par-

ticular. Again the plungers, on account of their being made to fit the cutting knives have to be carefully made for each set of
55 knives and for each different shaped tessera which not only makes such a device very expensive but also impracticable for the reason that every new pattern has to have its own individual plungers. By the use of pins or
60 fingers in the method this objection is obviated because they need not conform to the shape of the tesserae. Also in my method the use of the tacky substance is dispensed with
65 altogether and by simply applying a slight pressure at the center of each tessera in its unoxidized condition through the instrumentality of the pins or fingers the tesserae are made to retain their positions until the final
70 pressure can be applied to make the adhesion of the tesserae permanent. So my present invention has obvious advantages over the inventions heretofore employed and consists in cutting tesserae from sheets of un-
75 oxidized linoleum, laying the cutting block face downward with its charge of tesserae directly upon the canvas or flexible foundation, applying a pressure on a small surface of each
80 tessera by means of blunt pins or fingers sufficient to make them adhere to the canvas, then raising the cutter with the pins or fingers still resting upon the tesserae, removing
85 the pins or fingers, and applying a final pressure.

In the accompanying drawings, Figure 1 is
85 a view of a cutting block. Fig. 2 shows the same inverted and applied to the canvas. Fig. 3 shows the pins or fingers inserted and resting upon the tesserae and Fig. 4 shows the
90 cutter raised and the pins or fingers still resting upon the tesserae, just before the cutting block and pins or fingers are removed from the tesserae, and Fig. 5, is a view showing means for applying the final pressure.

A, represents the cutting block having the
95 usual knives 1, 1, on one face thereof. Holes 2, 2, are formed in the block centrally between these knives. Pins or fingers 3, 3, corresponding in number and position with the
100 holes in the cutting block, are held in a suitable block or plate 4. These pins or fingers have blunt ends and are adapted to pass through the holes in the cutting block and engage the tesserae therein when the latter

are to be forced upon the canvas and removed from the cutting block.

In practice, the cutting block is placed, knives downward upon a sheet of linoleum. Pressure is applied to force the knives through the linoleum and cut the sheet into tesserae. The cutting block thus charged with tesserae is laid face downward upon the canvas or flexible foundation. The block or plate with the fingers or pins thereon, is then placed over the cutting block in position so that the pins or fingers enter the holes in the cutting block from the back until they rest upon the tesserae therein. Just sufficient pressure is now applied to cause the tesserae to adhere to the canvas at points immediately beneath the pins or fingers, while the cutting block is still in place with the tesserae therein. The cutting block is now raised from the tesserae while the pins or fingers still rest upon them and hold them in place. Then pressure is removed and the block with the pins or fingers and the cutting block are both removed. The canvas is now moved on and another space is covered with tesserae as before and so on and afterward a final pressure is applied, by means of a plunger B of a suitable press C as shown in Fig. 5 and the linoleum is finished.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein described method of manufacturing linoleum, consisting in cutting tesserae from a sheet of unoxidized linoleum, applying the tesserae direct from the cutting block to the canvas or flexible foundation, causing the tesserae to adhere to the canvas

at a small portion of its surface, and applying a final finishing pressure over the entire surface of the tesserae, substantially as set forth. 40

2. The herein described method of manufacturing linoleum, consisting in accumulating tesserae in a block, applying it direct from the block to a canvas or flexible foundation, applying pressure at a small point in each tesserae to cause that portion of the tesserae where pressure is applied to enter the interstices of the canvas and adhere thereto, and applying a finishing pressure, substantially as set forth. 45 50

3. The herein described method of manufacturing linoleum, consisting in cutting tesserae from unoxidized linoleum by means of a cutting block, applying the tesserae direct from the cutting block to a canvas or flexible foundation, inserting pins or fingers through holes in the cutting block against the tesserae with sufficient pressure to force that portion of the tesserae immediately beneath the pins or fingers into the interstices of the canvas or flexible foundation while they are still in the cutting block so as to cause the tesserae to remain in position on the canvas, raising the cutting block on the fingers, then removing the fingers and cutting block, and finally applying a finishing pressure, substantially as set forth. 55 60 65

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

DAVID N. MELVIN.

Witnesses:

JAMES L. ASHLEY,
C. L. CARTLEDGE.