

(No Model.)

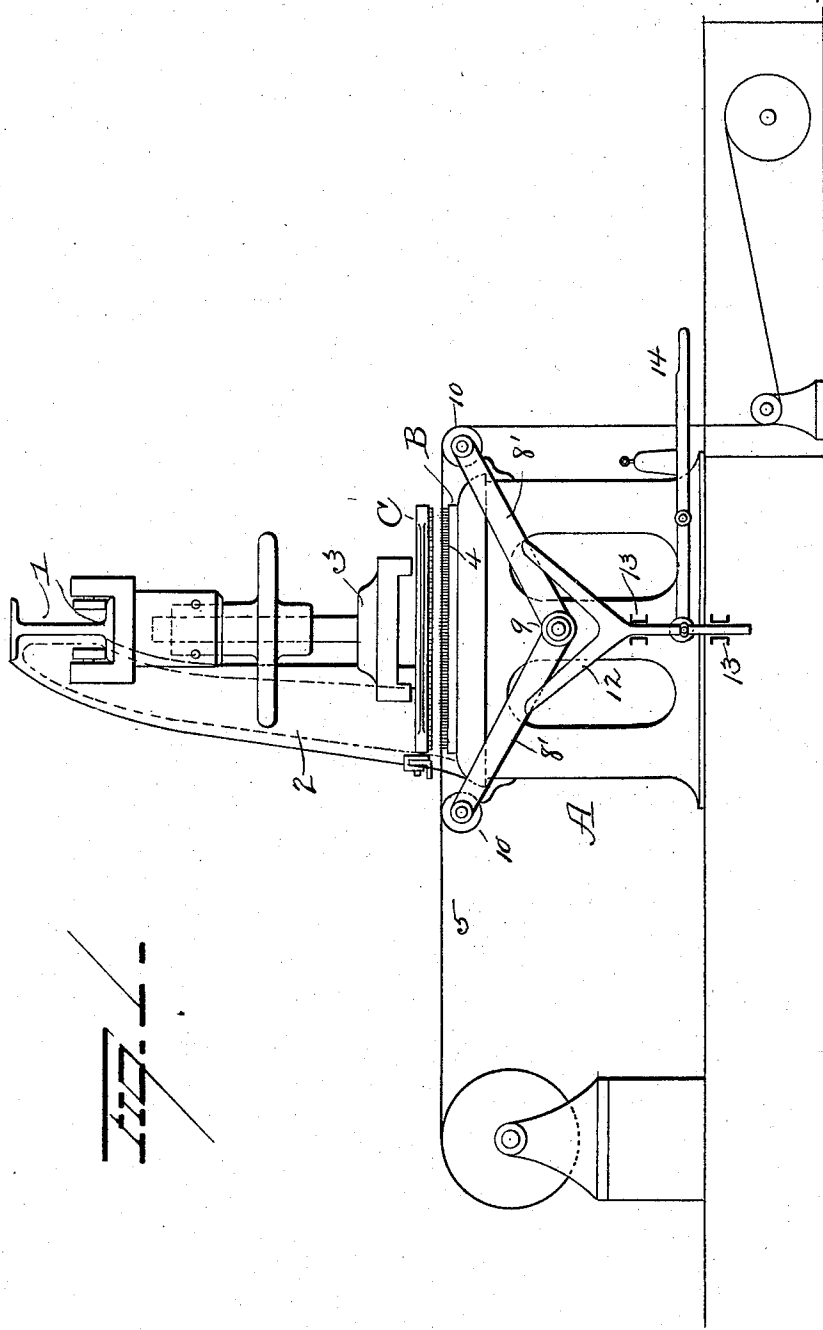
3 Sheets—Sheet 1.

D. N. MELVIN.

APPARATUS FOR MANUFACTURING LINOLEUM.

No. 535,452.

Patented Mar. 12, 1895.



Witnesses  
E. Nottingham  
G. F. Downing.

Inventor  
D. N. Melvin  
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Attorneys

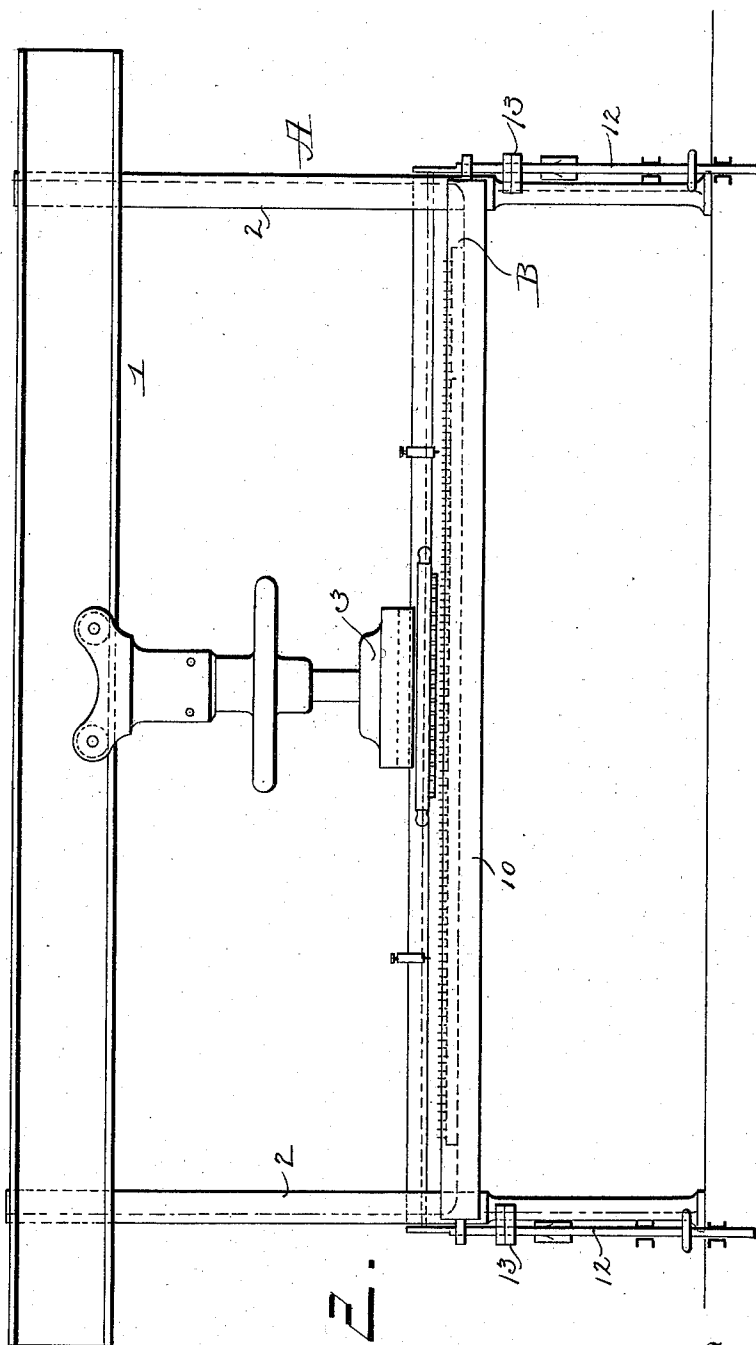
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3 Sheets—Sheet 2.

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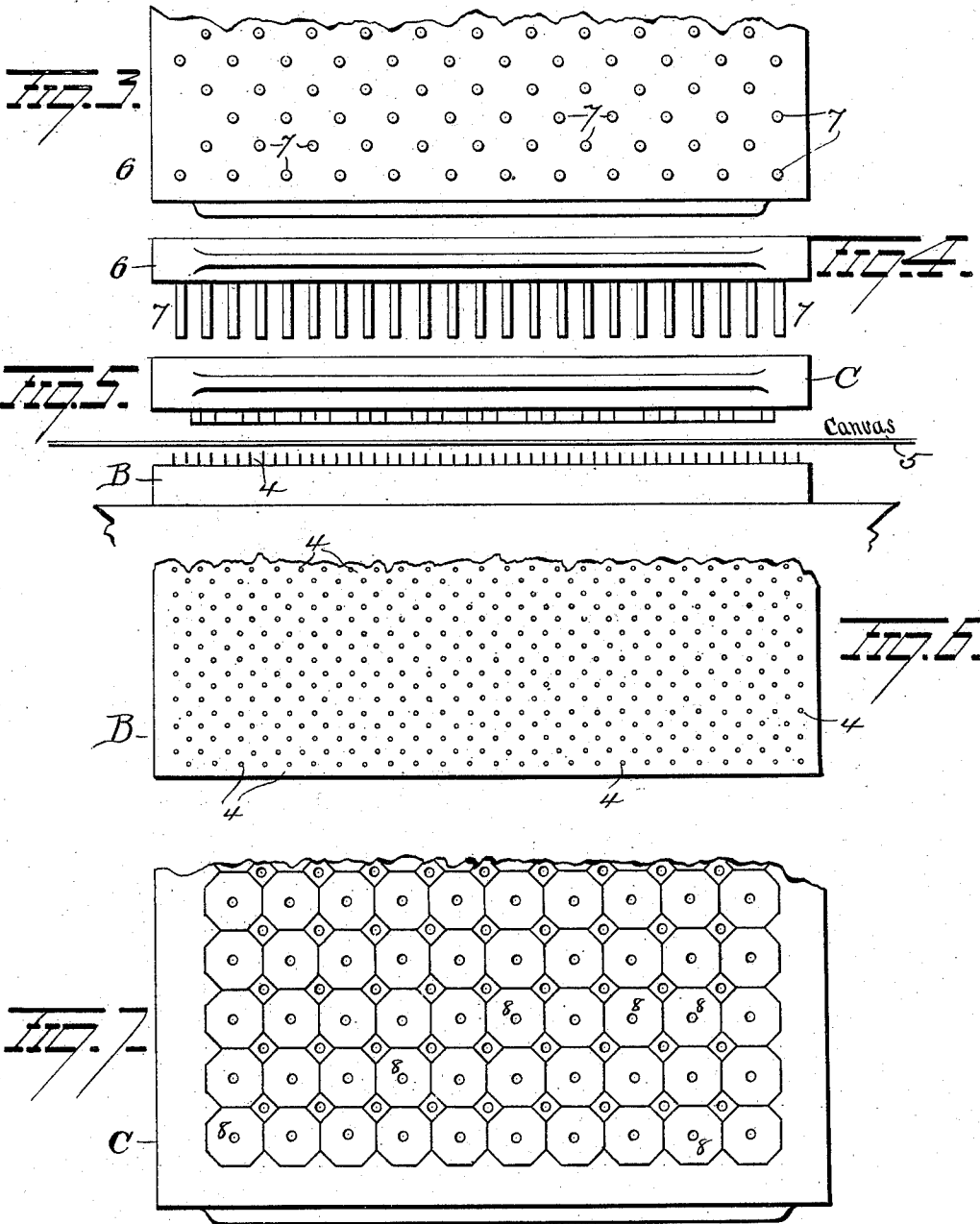
*Fig. 2.*

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# UNITED STATES PATENT OFFICE.

DAVID N. MELVIN, OF LINOLEUMVILLE, NEW YORK.

## APPARATUS FOR MANUFACTURING LINOLEUM.

SPECIFICATION forming part of Letters Patent No. 535,452, dated March 12, 1895.

Application filed December 29, 1894. Serial No. 533,309. (No model.)

*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 new and useful Improvements in Apparatus for Manufacturing Linoleum; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in apparatus for manufacturing linoleum and it consists in certain novel features of construction which will be hereinafter described and pointed out in the claims.

In the accompanying drawings Figure 1 is a side elevation of a press employed in affixing the tesserae of linoleum to the canvas backing. Fig. 2 is an end elevation of the same, and Figs. 3, 4, 5, 6 and 7 are detail views showing the cutting block holder and plunger in different positions.

A, represents a frame the length of which approximately corresponds with the usual width of canvas employed in the manufacture of linoleum. Over the body of the frame is a superstructure comprising in the main a track 1 extending parallel with the bed of the frame, and supports 2, 2, for holding this track in its elevated position. Press 3 is constructed to travel upon this track 1 across the bed of the frame.

B is a holder for retaining the tesserae and canvas in position relative to each other while the initial pressure is applied to the tesserae, to affix it to the canvas or flexible foundation. This holder B comprises a plate having small pins 4, 4, protruding from its upper face.

C, is the block containing the tesserae.

The holder B, is placed upon the bed of the frame as indicated in Figs. 1 and 2 with its toothed face upward. The canvas 5 is drawn across this toothed holder B after the manner indicated in Fig. 1. A block C filled with tesserae is placed beneath the press 3. A plunger 6 having fingers 7, 7, therein which pass through holes 8, 8, in the block C, to discharge the tesserae in the block is forced down by the press with sufficient pressure to impale the tesserae and the canvas upon the pins 4, 4, of the holder B and if necessary a slight additional pressure might be applied after the

plunger is removed to insure the adhesion of the tesserae to the canvas. The plunger is then raised and the block C and plunger 6 are removed, after which the canvas with its tesserae applied is lifted from the pins 4, 4, and the canvas is moved on toward the press, not shown, which gives the final pressure and a new surface of canvas is presented for the application of more tesserae. If the plunger is not as wide as the canvas it is moved its width along the track to give another pressure. This lifting of the canvas and tesserae referred to, may be accomplished in any convenient manner, by hand, or by any improved mechanism. I have devised the following: A pair of arms 8', 8', are pivoted at their inner ends preferably at a common center 9, and they are disposed in such a manner that their free ends reach beyond the edges of the frame, where they are provided with rollers 10, 10, which extend parallel with the edges of the bed from one end of the frame to the other and their ends are journaled in the free ends of arms 8', 8'. A vertical sliding prong 12, 12, at each end of the frame is guided in its movement in boxes 13, 13, and the upper ends of these prongs engage the arms 8', 8', and raise them to elevate the rollers and lift the canvas and tesserae from the pins, when the prongs are elevated, a foot lever 14, being fulcrumed on the frame and connected with the prongs to operate them when it (the foot lever) is depressed at its tread end. By this mechanism the material is quickly and easily raised from the press and the weight of the mechanism and canvas supported thereon is sufficient to return the parts to their normal position. A final pressure may be applied in the usual manner to make the tesserae adhere permanently to the canvas and to one another at their edges.

To briefly restate the operation I draw the canvas or flexible foundation across the table over the holder and then impale the tesserae and canvas upon the pins and if necessary press the tesserae until they adhere sufficiently to insure their retention in place upon the canvas. Subsequently the canvas with the tesserae thereon is lifted or removed from the pins and a final finishing pressure is applied which completes the linoleum.

Slight changes might be made in the form

and arrangement of the mechanism described and in the steps of the process followed without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact construction herein set forth, but,

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

10 1. In an apparatus for the manufacture of linoleum, the combination with a frame, of a holder adapted to be placed on the bed of the frame, said holder having pins, and means for impaling a canvas backing and tesserae  
15 upon the pins, substantially as set forth.

2. The combination with a frame, of a holder placed thereon and having pins protruding from one face thereof upon which the canvas backing and tesserae are adapted to be im-  
20 paled, and mechanism for lifting the canvas and tesserae from the pins, substantially as set forth.

3. The combination with a frame, of a holder adapted to be placed thereon, said holder hav-  
25 ing pins which protrude from one face thereof and upon which the canvas and tesserae are adapted to be impaled, pivoted arms carrying means at their ends to lift the canvas and tesserae from the holder, and means for raising  
30 the arms, substantially as set forth.

4. The combination with a frame, of a holder having pins on which the canvas and tesserae

are adapted to be impaled, arms pivoted at each end of the frame, said arms carrying rollers adapted to lift the canvas and tesserae, 35 sliding devices for vibrating these arms, and means for moving the sliding devices, substantially as set forth.

5. The combination with a frame, a super-structure and a press carried by the super-structure, of a holder having pins thereon on which the canvas and the tesserae are adapted to be impaled, a block adapted to contain tes-  
40 serra, a plunger for impaling the tesserae on the pins of the holder when pressure is applied  
45 from the press, substantially as set forth.

6. The combination with a frame, a super-structure, and a press carried on the super-structure, of a holder having pins thereon on which the canvas and tesserae are adapted to  
50 be impaled, a block adapted to contain tessera, a plunger for impaling the tesserae on the pins of the holder when pressure is applied from the press, and means for lifting the can-  
55 vas and the tesserae from the press, substantially as set forth.

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

DAVID N. MELVIN.

Witnesses:

HOWARD MARSHALL,  
VERNON E. HODGES.