

No. 862,806.

PATENTED AUG. 6, 1907.

H. W. CARPENTER.
MACHINE FOR PRESSING WOVEN LATHING.

APPLICATION FILED MAY 10, 1906. RENEWED JAN. 14, 1907.

2 SHEETS—SHEET 1.

Fig. 7. Fig. 8. Fig. 9.

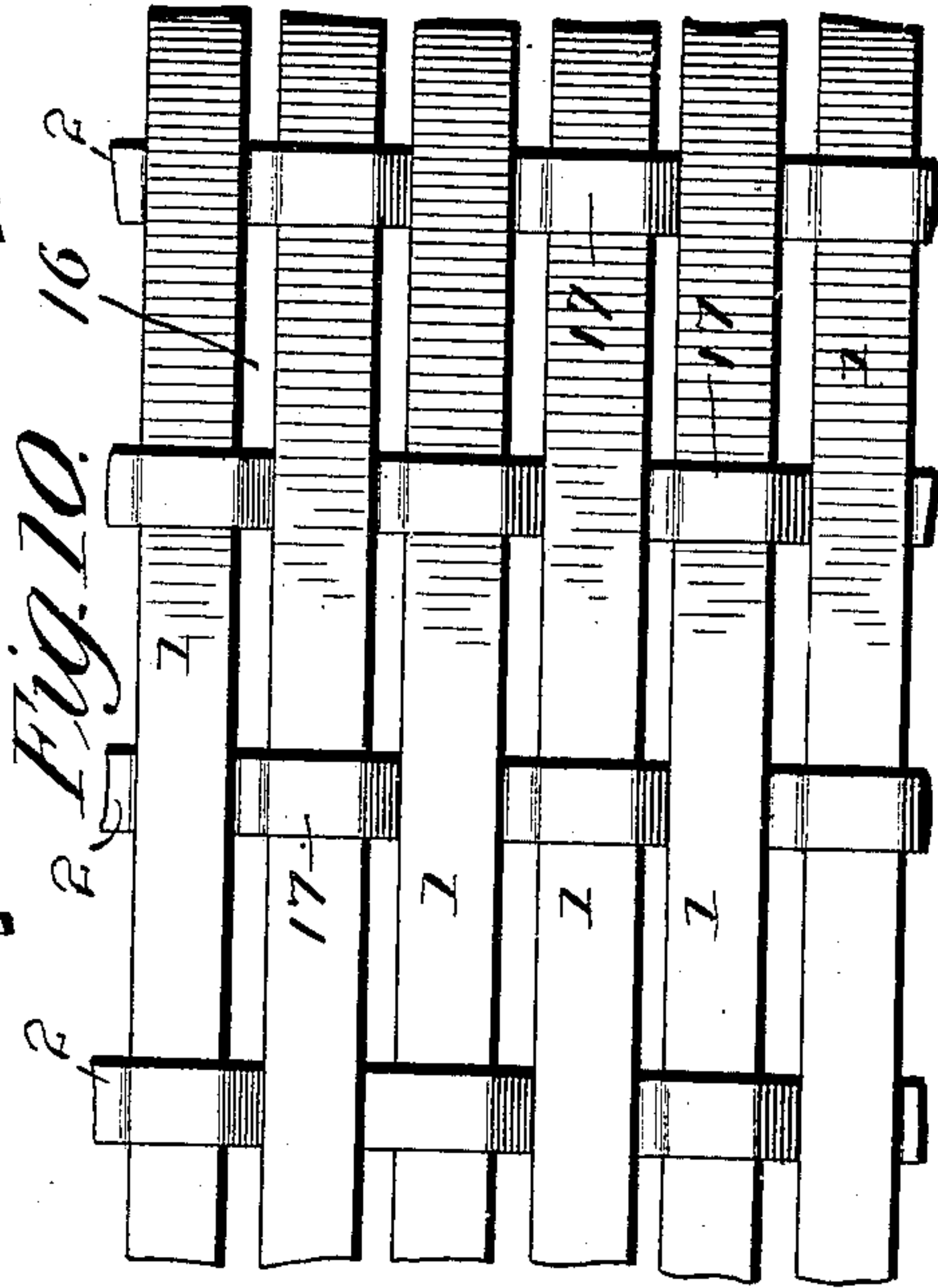
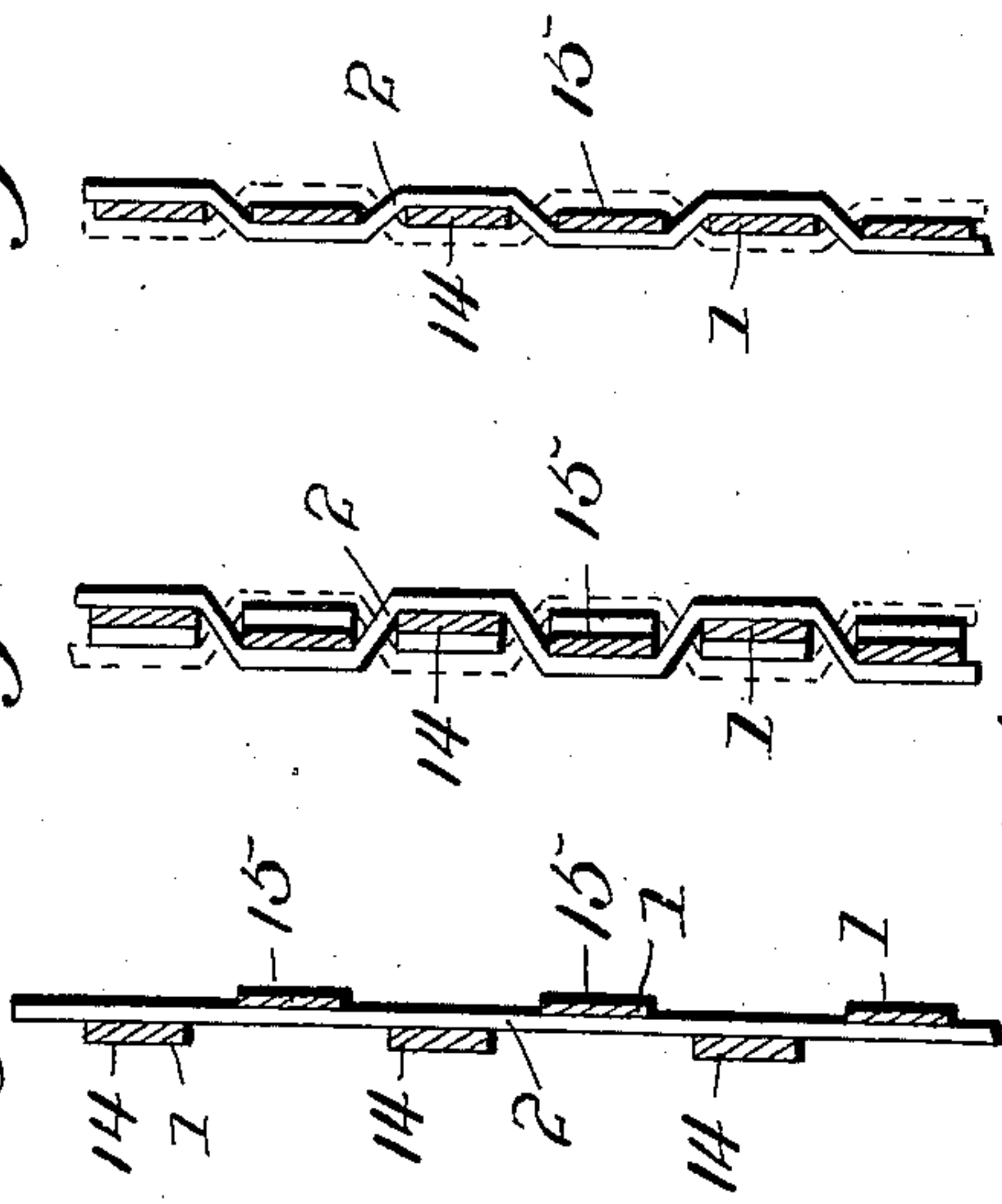


Fig. 1.

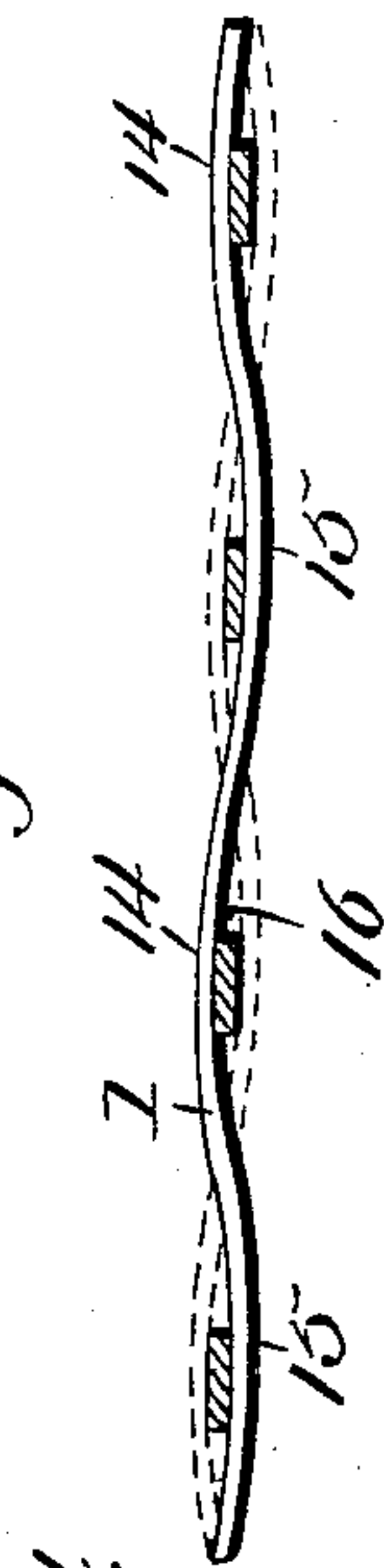
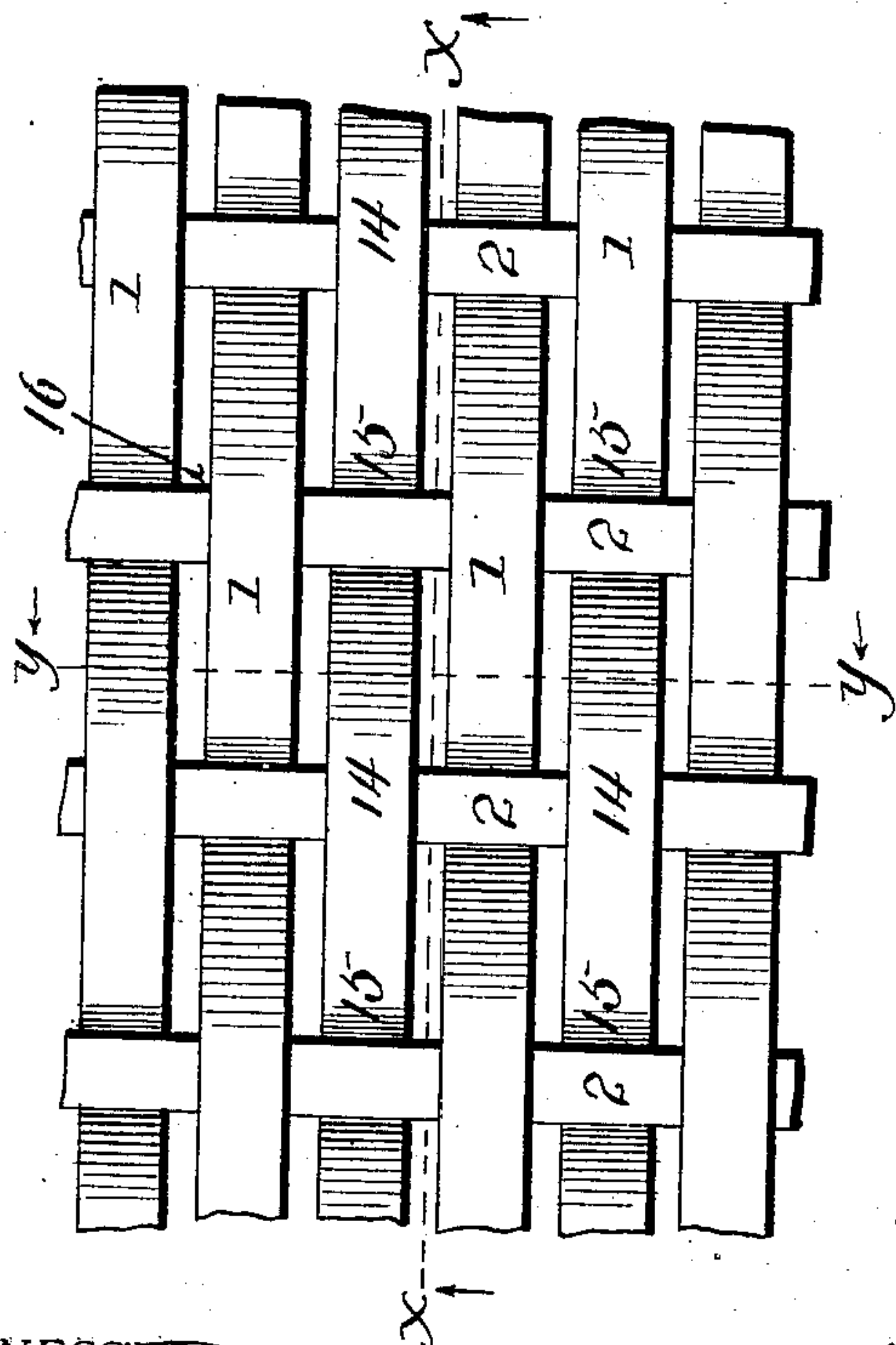


Fig. 4.

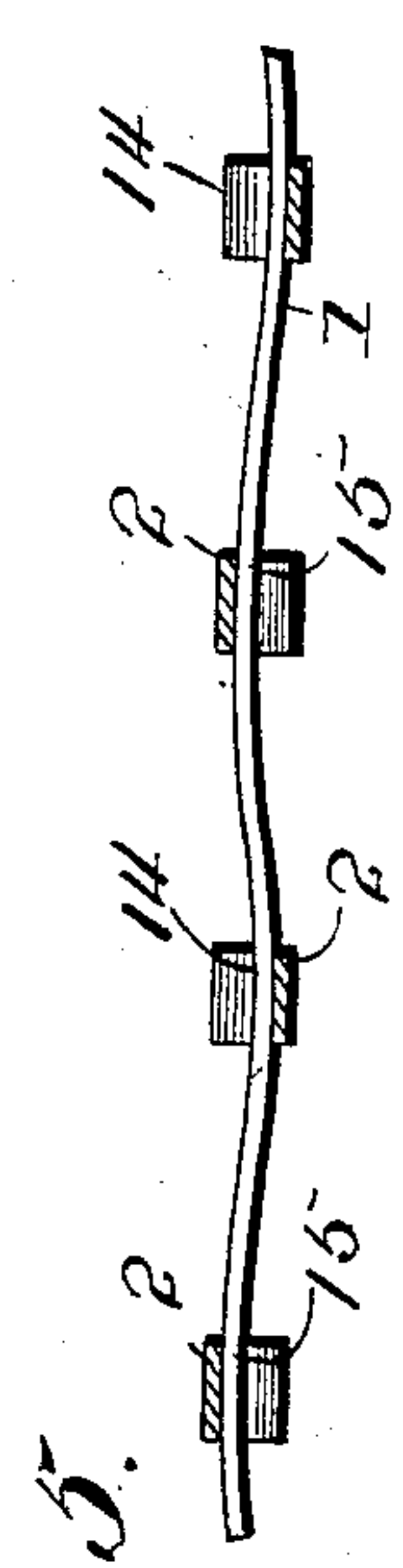


Fig. 5.

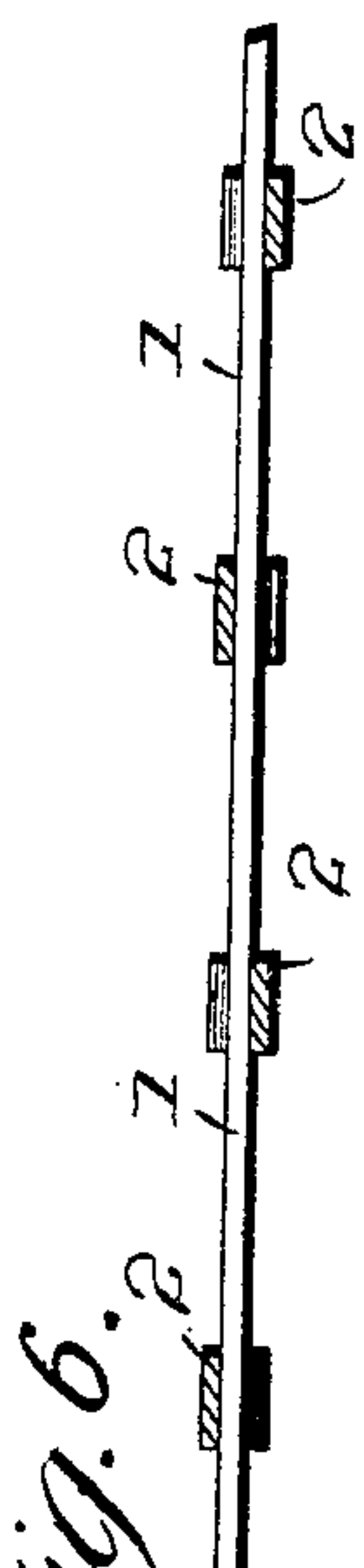


Fig. 6.

WITNESSES:
H. F. K. L.
E. P. R. R.

INVENTOR
Henry W. Carpenter,
BY *Bruce L. Elliott*
Attorney

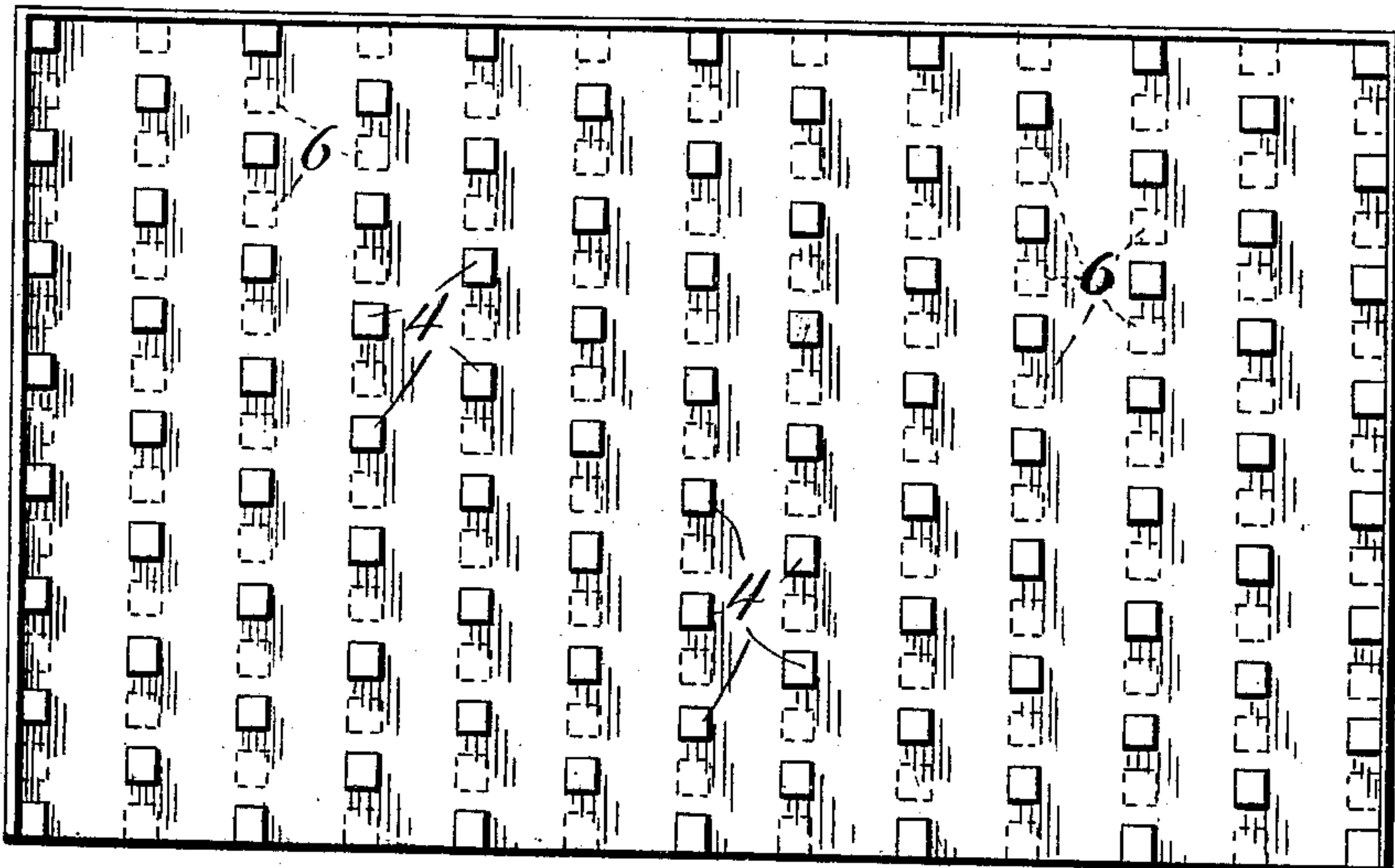
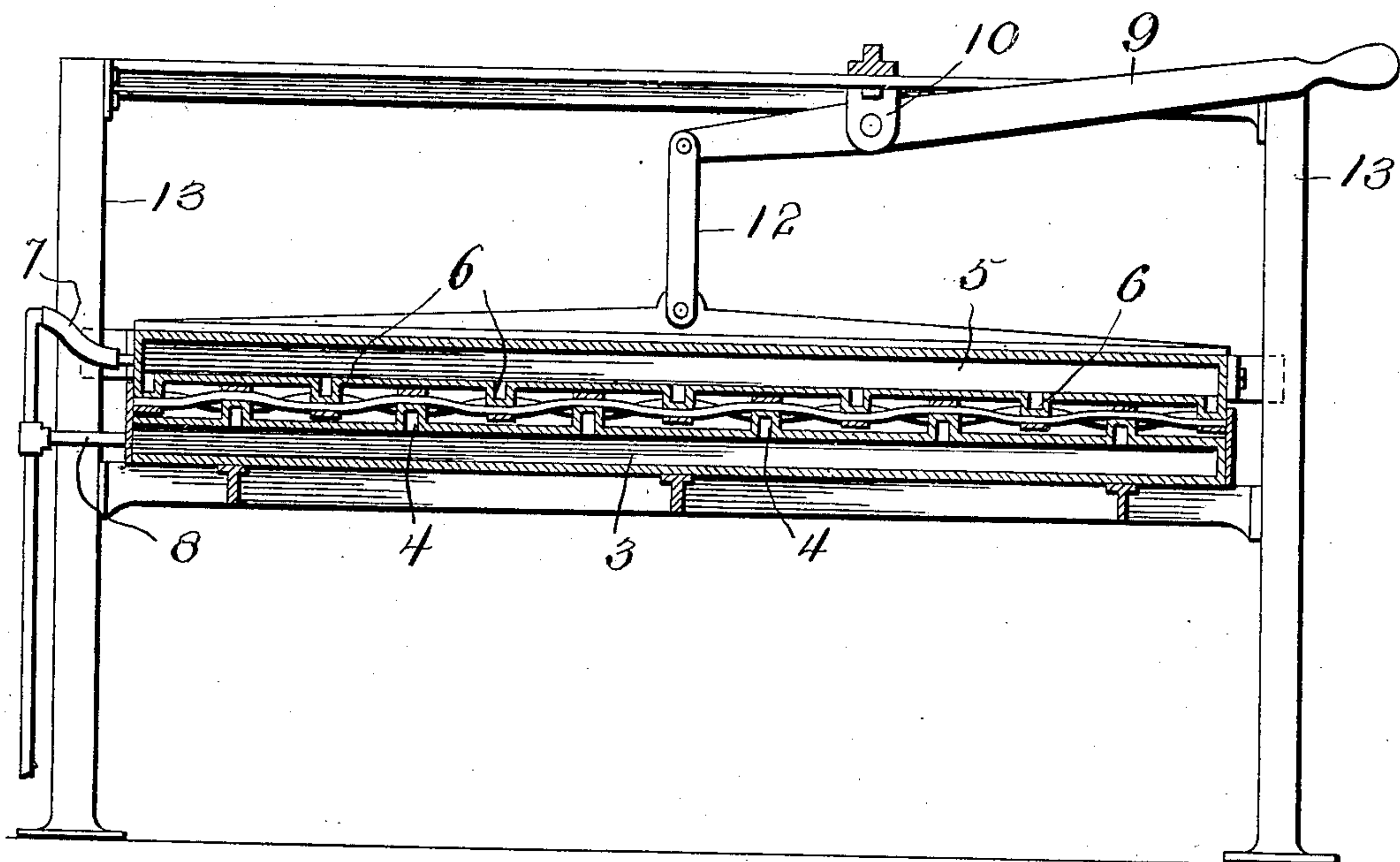
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2 SHEETS—SHEET 2.

Fig. 2.



WITNESSES:
H. F. Koyler
E. R. Ruppert

Fig. 3.

INVENTOR
Henry W. Carpenter,
BY *Bruce S. Elliott*

Attorney

UNITED STATES PATENT OFFICE.

HENRY W. CARPENTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO AMERICAN WOVEN LATH COMPANY, OF WASHINGTON, DISTRICT OF COLUMBIA, A CORPORATION OF WEST VIRGINIA.

MACHINE FOR PRESSING WOVEN LATHING.

No. 862,806.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed May 10, 1906, Serial No. 316,218. Renewed January 14, 1907. Serial No. 352,290.

To all whom it may concern:

Be it known that I, HENRY W. CARPENTER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Machines for Pressing Woven Lathing, of which the following is a specification.

My invention has for its object to provide a press for use in treating woven wooden lathing, whereby said lathing after treatment shall present a comparatively flat or even surface, as distinguished from the undulatory surface which characterizes this article.

To this end the invention consists of a press having the construction, and operating in the manner, described.

The desirability of woven wooden lathing as a substitute for the ordinary straight laths, or for metallic laths, or lathing, has heretofore been recognized, and attempts have been made to devise machines for the commercial manufacture of this product. Such lathing has not come into extensive use, so far as I am aware, owing largely no doubt to the difficulties encountered in constructing a machine which would operate satisfactorily to produce woven lathing with any degree of rapidity. This difficulty has been overcome by another. I have discovered, however, an objection in the woven lathing itself, which it is the aim of this invention to overcome. This objection I will briefly indicate in order that the purpose of my invention, and its utility, may more clearly appear: In the manufacture of woven wooden lathing, the long or warp slats are first inserted in the machine, and by any one of several means known to me, are suitably bent throughout their length and in alternation with each other to permit a series of short weft slats to be inserted. The exigencies of manufacture require, so far as my knowledge extends, that the warp slats which are relatively thick and long should be bent or curved to enable the relatively short and thin weft slats to be inserted through the sheds formed thereby. In the finished article the warp slats will be alternately bent over and under adjacent weft slats, thus causing a series of undulations to appear on the surface of the lathing.

Owing to the relatively large opening which is caused by the opposite bends in two adjacent warp slats at the point of interweaving with a weft slat, a greater amount of mortar than is necessary will pass through this opening, and frequently a large lump of this mortar at the top of the lathing will drop off and falling against the projections of the mortar beneath it will knock them off and thus prevent the mortar from being securely keyed in the lathing, while at the same time a considerable waste of mortar results.

According to my invention, after the lathing has been woven, it is subjected to pressure in a specially constructed press which will operate to straighten out the curves in the warp slats and correspondingly bend the weft slats. By this means the warp slats will be brought into substantially the same plane and the openings between them will be uniform throughout.

Having thus briefly indicated the purpose of my invention, I will now proceed to describe the same in detail, referring to the accompanying drawings, in which

Figure 1 indicates a section of woven lathing before being treated according to my invention. Fig. 2 is a longitudinal sectional view of the press with a section of lathing therein being pressed. Fig. 3 is a plan view of the lower member of the press, the alternating projections on the corresponding upper member being indicated by dotted lines. Figs. 4, 5 and 6 are sectional views taken on a line corresponding to the line $x-x$ of Fig. 1, Fig. 4 illustrating the appearance of a warp slat before it enters the press, Fig. 5 its appearance while in the press and Fig. 6 its appearance after removal from the press. Figs. 7, 8 and 9 are sectional views taken on a line corresponding to the line $y-y$ of Fig. 1, Fig. 7 illustrating the appearance of a weft slat before entering the press, Fig. 8 its appearance while in the press, and Fig. 9 its appearance after removal from the press. Fig. 10 is a plan view of the completed product.

Referring now to Fig. 1 of the drawings, the numerals 1 indicate a series of warp slats interwoven with the series of weft slats 2. As this lathing appears on leaving the weaving machine, each of the warp slats 1 will have the undulatory form indicated by Fig. 4, while each of the weft slats 2 will be relatively straight as indicated by Fig. 7. As above stated, this construction presents a series of relatively large openings in the line of the weft slats owing to the fact of the adjacent warp slats being bent outward in opposite directions. In order to close these openings, as it were, or in other words straighten the warp slats, I place the woven lathing shown in Fig. 1 in the press illustrated in Figs. 2 and 3. This press comprises a hollow bed 3 having a series of rows of hollow projections 4 arranged in staggered relation and a movable hollow plunger 5 having like rows of hollow projections 6 which are arranged in alternation with the projections 4 of the bed 3 as clearly indicated in Fig. 3. A pipe 7 is connected with the hollow plunger 5 for the purpose of admitting steam thereto and a similar pipe 8 is connected with the hollow bed 3 for a like purpose.

I have illustrated a conventional means for moving the plunger 5 comprising a lever 9 pivoted at 10 on a

frame 11 and connected at its inner end by means of a link 12 with the top of the plunger 5.

13 indicate guides in which the plunger 5 works at opposite ends.

5 The size of the press is of course proportioned to the size of the sheet of woven lathing, and when the latter is placed in the press each of the projections 6 of the plunger will bear upon the upper side of the warp slats 1 at the points indicated by 14 where they are bent
10 over the weft slats, while the projections 4 on the bed will bear upon the corresponding points 15 of the warp slats on their under sides. When the plunger is depressed, therefore, by operating the lever 9, each warp slat will have its curves reversed as indicated by Fig. 5
15 owing to the projections 4 pressing the curved portions 15 upward and the projections 6 pressing the curved portions 14 downward. This reverse bending of the warp slats, or in other words bending the same above and below, respectively, the horizontal plane which
20 it is intended they shall subsequently occupy, is in order to allow for their tendency to straighten out, or resume their former position when the pressure has been removed. By so doing, when the plunger is lifted and the warp slats spring back they will assume a substantially straight position as shown by Fig. 6. The
25 weft slats on the contrary, being straight when placed in the press as indicated by Fig. 7, will first be bent to the maximum degree as indicated by Fig. 8, and when the lathing is removed from the press will eventually
30 assume the position indicated by Fig. 9. It might at first appear that what was gained by straightening the warp slats will be lost by bending the weft slats; but such is not the case, for in practice the lathing is placed on the studding or rafters with the warp slats extending
35 in a horizontal direction and thus the curvature in the weft slats does not in any manner affect the opening between the warp slats which will have been brought into the same plane by the method of procedure above outlined. Furthermore, after the warp slats have been
40 straightened out in the manner above described the curved portion of the weft slats will lie substantially flush with the surface of the warp slats, and the plaster can be placed on the lathing and have a uniform thickness of layer throughout. As the distance between the
45 warp slats is regulated as desired, when the lathing has been pressed as above described, the openings 16 in the woven lathing will be uniform throughout, and there will be no tendency for a large amount of mortar to be forced through said openings adjacent to the weft slats
50 as would be the case if the lathing were used without being pressed in the manner described.

In order that the operation may be more clearly understood, I would explain that the slats, before weaving, are steamed, or otherwise moistened, and are thus in a soft, pliable condition when placed in the press. This 55 fact, and the further fact that hot press-members are used, as described, enables me to straighten out the warp slats as described, and also insures the slats retaining substantially the shape imparted to them by the press. As a further means of securing this result, 60 the lathing sections are placed in a crate and secured therein under compression.

Fig. 10 clearly shows the appearance of the completed product, the warp slats being straight, and the weft slats correspondingly bent as indicated at 17. 65

I claim.

1. A machine for pressing woven lathing comprising two members, one of which is movable toward and from the other, each of said members having a series of projections arranged in staggered relation with respect to each other 70 and in alternation with the like series of projections on the other member, and means for heating said members.

2. A machine for pressing woven lathing comprising two hollow members, one of which is movable toward and from the other, and each of such members provided with a series of hollow projections arranged in staggered relation to each other, and in alternation with the like series of projections on the other member, and means for supplying a heating medium to said members. 75

3. A machine for pressing woven lathing comprising a lower stationary and an upper movable member, each of said members being provided with hollow projections arranged in staggered relation with respect to each other, and in alternation with the like series of projections on the other member, said projections being so disposed as 80 to engage the crest of the sheds of the warp slats, whereby when pressure is applied to said upper member the curves in said warp slats will be reversed, and means for supplying a heating medium to said hollow projections. 85

4. A machine for pressing woven lathing comprising two members, one of which is movable toward and from the other, means for heating said members, and means carried by said members for engaging the crest of the sheds of the warp slats of a section of lathing placed between said members, whereby when said pressure is applied to said 90 movable member the curves in the warp slats of the lathing will be straightened out and the weft slats correspondingly bent. 95

5. A machine for pressing woven lathing comprising two members having oppositely disposed shed engaging means, means for heating said members, and means for moving one of said members toward and from the other. 100

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY W. CARPENTER.

Witnesses:

BRUCE S. ELLIOTT,
W. E. ROBINSON.