



No. 880,098.

W. E. ROBINSON.

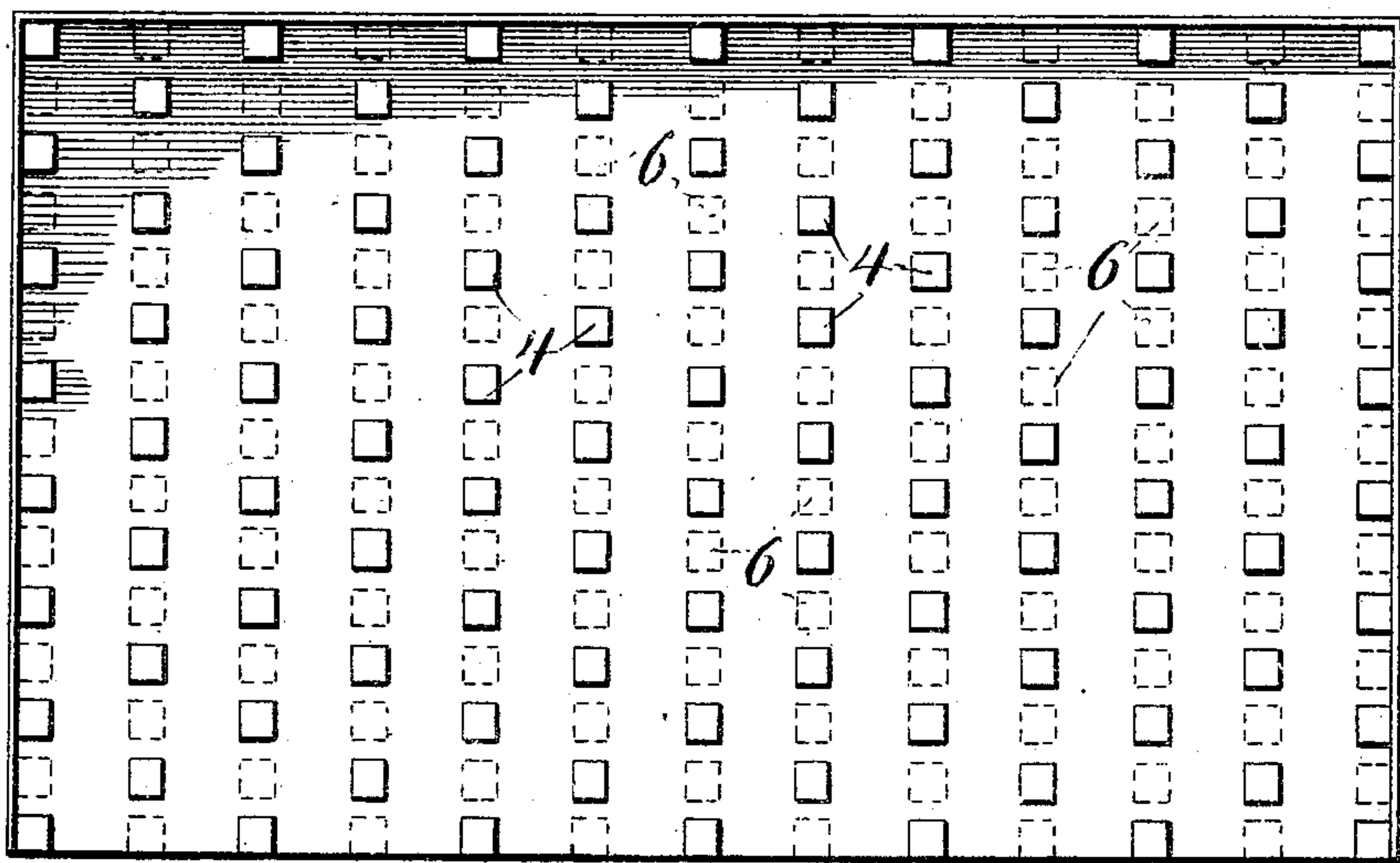
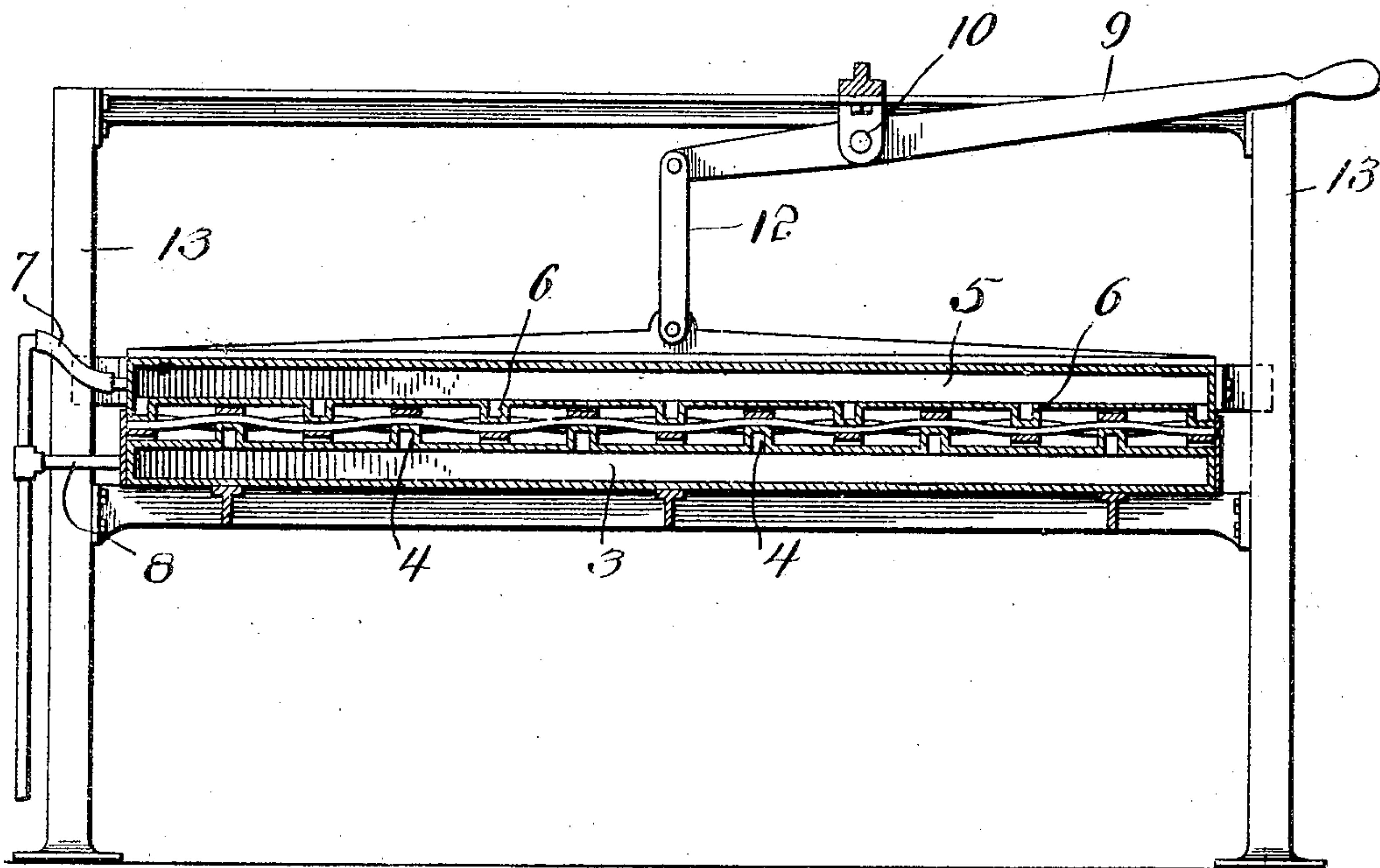
PATENTED FEB. 25, 1908.

WOVEN LATHING AND METHOD OF TREATING SAME.

APPLICATION FILED APR. 26, 1906.

2 SHEETS—SHEET 2.

Fig. 2.



WITNESSES:

*H. F. Koye*  
*E. R. Ruppert*

Fig. 2.

INVENTOR

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BY

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# UNITED STATES PATENT OFFICE.

WILLIAM E. ROBINSON, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AMERICAN WOVEN LATH COMPANY, OF WASHINGTON, DISTRICT OF COLUMBIA, A CORPORATION OF WEST VIRGINIA.

## WOVEN LATHING AND METHOD OF TREATING SAME.

No. 880,098.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed April 26, 1906. Serial No. 313,893.

*To all whom it may concern:*

Be it known that I, WILLIAM E. ROBINSON, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Woven Lathing and Methods of Treating Same, of which the following is a specification.

My invention has for its object to produce woven wooden lathing which shall present a comparatively flat or even surface as distinguished from the undulatory surface which characterizes this article.

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, however, 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 recently overcome. 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 a press suitable for use in practicing my invention, 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 slat being 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 a suitable press such as illustrated in Figs. 2 and 3. This press comprises a hollow bed 3 having a series of rows of projections 4 arranged in staggered relation and a movable hollow plunger 5 having like rows of 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.

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 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 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 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 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 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 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 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 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 as would be the case if the lathing were used without being pressed in the manner described.

In order that the method involved 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 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, 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.

The principle involved in my invention is applicable, not only to woven wooden lathing, but to woven lathing made from metallic strips, or made partly of metallic strips and partly of wooden slats.

I claim.

1. As a new article of manufacture, lathing consisting of woven wooden warp or clench slats and wooden weft or cross slats, the warp slats being substantially straight and the weft slats having straight portions lying substantially flush with the surfaces of the warp slats.

2. As a new article of manufacture, lathing consisting of woven wooden warp or clench slats and compressed wooden weft or cross slats, the warp slats being substantially straight and the weft slats having straight portions lying substantially flush with the surfaces of the warp slats.

3. A lathing composed of a series of comparatively closely arranged slats and a series of interwoven slats spaced more widely apart, the distortion necessitated by the alternate under and over lapping of the slats of the two series being confined to the slats of the latter series.

4. A lathing composed of a series of comparatively closely arranged slats and a series of interwoven slats spaced more widely apart, the latter slats being parallel with the former where their surfaces overlap and the



distortion necessitated by the alternate under and over lapping of the slats of the two series being confined to the slats of the latter series and to the portion thereof which lies between adjacent slats of the first named series.

5     5. The method of treating woven lathing which consists in straightening the warp slats thereof by reversely bending their curved portions beyond opposite sides of their mean  
10 plane, so that, when the bending pressure is removed, they will spring back to a substantially straight condition.

15     6. The method of treating woven wooden lathing which consists in straightening the warp slats thereof by reversely bending their curved portions beyond opposite sides of  
their mean plane, so that, when the bending pressure is removed, they will spring back to a substantially straight condition.

20     7. The method of treating woven wooden lathing comprising a warp of flexible slats having interwoven therewith, with the ordinary distortion of the warp slats, a transverse series of weft slats, which consists in  
25 eliminating by pressure the distortion of the

warp slats, bringing them to a common plane, and transferring the distortion due to the over and under lapping of the two series to the weft series, to which latter series such distortion is confined.

30

8. The method of treating woven lathing comprising a warp of comparatively closely arranged flexible slats having interwoven therewith, with the ordinary distortion of the warp slats, a transverse series of more  
35 widely spaced weft slats, which consists in eliminating by pressure the distortion of the warp slats, bringing them to a common plane, and transferring the distortion due to the over and under lapping of the two series  
40 to the weft series, to which latter series such distortion is confined.

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

WILLIAM E. ROBINSON.

Witnesses:

CHAS. S. HYER,

HENRY W. CARPENTER.