

(No Model.)

2 Sheets—Sheet 1.

G. A. TURNBULL.
METALLIC LATHING.

No. 511,823.

Patented Jan. 2, 1894.

Fig. 1.

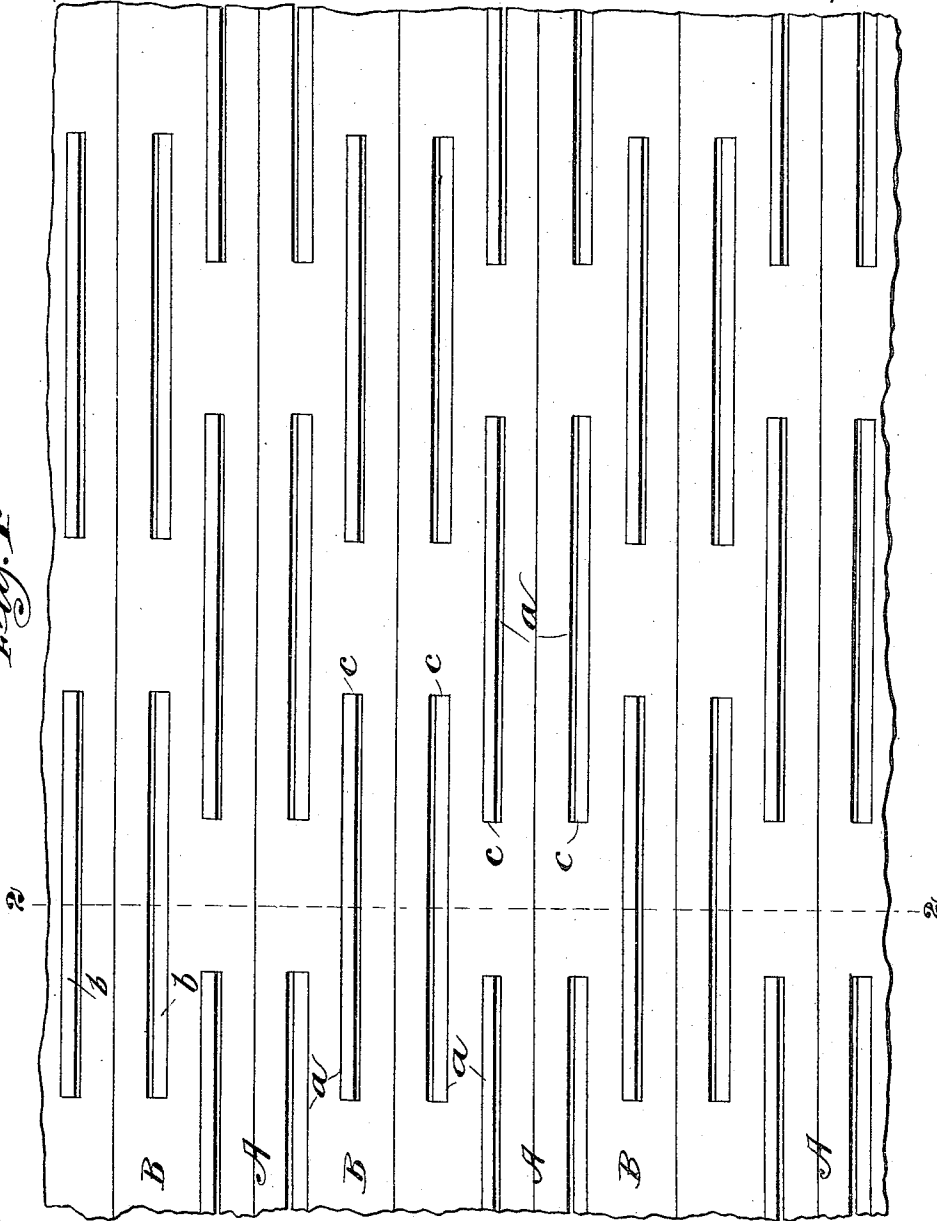
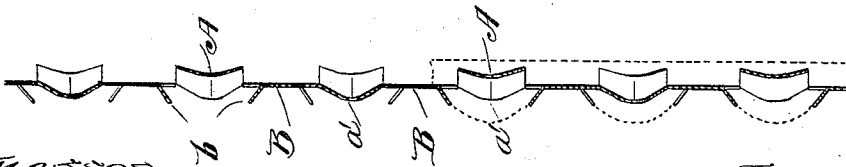


Fig. 2.



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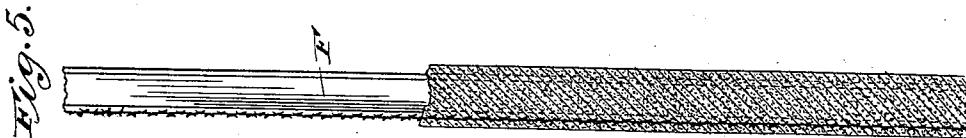
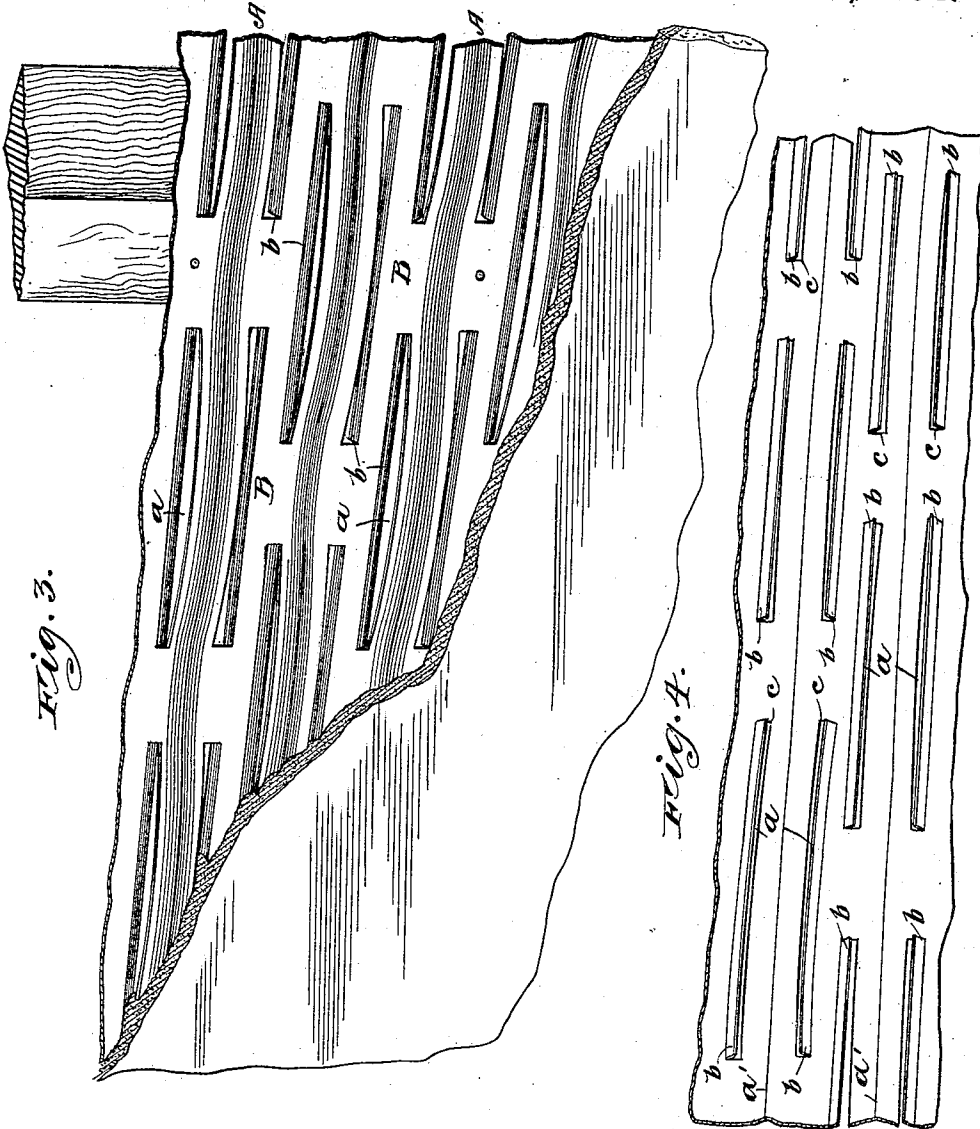
(No Model.)

G. A. TURNBULL.
METALLIC LATHING.

2 Sheets—Sheet 2.

No. 511,823.

Patented Jan. 2, 1894.



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UNITED STATES PATENT OFFICE.

GEORGE A. TURNBULL, OF CHICAGO, ILLINOIS, ASSIGNOR TO TURNBULL & CULLERTON, OF SAME PLACE.

METALLIC LATHING.

SPECIFICATION forming part of Letters Patent No. 511,823, dated January 2, 1894.

Application filed February 23, 1893. Serial No. 463,365. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. TURNBULL, of Chicago, Illinois, have invented certain new and useful Improvements in Metallic Lathing, of which the following is a specification.

This invention relates to metallic lathing of that class wherein a metal sheet is perforated or slitted to permit the passage of the mortar to form keys or clinches; and the invention consists in certain improvements in the features of construction which will be hereinafter more fully described and particularly pointed out in the claims.

The object of the invention is to furnish a superior form of metallic lathing by which a better key can be produced and with greater economy of material than has heretofore been obtained in metallic lathing.

In carrying out my invention I preferably construct the metallic lathing from soft sheet steel and corrugate it in the direction of the length of the plate, which is longitudinally slitted at suitable intervals between adjacent corrugations, the metal being turned out at the margins of the slits whereby to provide free lips which permit the passage of the mortar and guide and control it as it passes through the perforations so as to prevent waste and to cause the mortar passing through adjoining slits to unite upon the back of the interposed corrugated strip to form a key.

By my construction the key is not subjected to the action of any sharp edge or part of the metal whereby such key would be cut or weakened.

In the accompanying drawings, Figure 1 is a broken plan view of the face side of a section of my improved metallic lathing. Fig. 2 is a transverse sectional view showing at one end the application of the mortar and the formation of the keys or clinches. The section is taken on line 2—2 of Fig. 1. Fig. 3 is a perspective view showing the application of the metallic lathing to a wall having wooden studding. Fig. 4 is a view of the reverse side of the lathing from that shown in Fig. 3; and Fig. 5 is a sectional view showing the lathing as applied to both sides of the studding, which in this case is composed of metal channel bars.

In carrying out my invention I take a sheet

of suitable metal, preferably soft steel, and corrugate it longitudinally, the corrugations being indicated at A. Between these corrugations are the plain portions B and the metal is slitted longitudinally at suitable intervals, as shown at *a*, and the margins of the metal at these slits turned out from the face to provide lips *b* which preferably project at an angle of forty-five degrees from the plane of the portions B from which they are formed. In order to facilitate the turning down of these lips the metal may also be cut transversely, as at *c*, but this is not important. The portions between the slits *a* are also bent or arched upwardly or in the opposite direction from the lips to form loops as indicated in Fig. 3 to provide a wider aperture for the entrance of the mortar.

The several operations above mentioned may be performed simultaneously by the use of suitable dies mounted in cylindric rolls, or the several operations may be performed successively by corrugating rolls and reciprocating dies, or the metallic lathing may be formed by other suitable appliances, or even by hand.

The turning down of the lips at the angle described permits the mortar to pass readily through the apertures and to form the wedge shaped keys E as shown in the drawings, particularly Fig. 3. On the face side the mortar will entirely cover the surface of the metallic lathing and upon the rear side the keys will cover the rear sides of the loops.

By reference to Fig. 2 it will be seen that the mortar entering between two adjoining apertures will be directed by the out turned lips toward the middle of the loops bounded by such perforations. When the key is formed it is practically continuous, the mortar passing through adjacent apertures meeting at the apex *a'* of the corrugation A. By this construction the key is formed upon the inclined surfaces of the lips and upon the opposing inclined surfaces of the corrugations and as more material will pass while in the plastic condition than can be withdrawn through the aperture after the material hardens the key is practically wedge shaped. No sharp corners or angles are permitted to contact with the key which would have a tendency to break it off or weaken it. The mortar en-

tering the apertures is prevented from flowing down by the upwardly projecting lips defining one side of the aperture, and therefore the material is greatly economized.

5 In Fig. 3 I have shown the application of this metallic lathing to ordinary wooden studding; and in Figs. 4 and 5 I have shown its application in the construction of what is termed a solid partition, wherein are shown
10 metal studs composed of the channel bars F.

It will be understood that the metallic lathing will be applied to the flat sides of the flanges of these channel bars whose openings are at right angles with the metallic lathing
15 sheet and that the mortar is applied to the face side of the lathing first and afterward a coat of mortar is applied to the reverse side of the lathing filling out between the channel bars and also preferably covering their
20 flanges so that what is termed a solid partition is thus made.

It will be understood that the applications of my metallic lathing which I show are illustrative merely and that it may be applied in
25 any other situation where either wooden or metallic lathing is applicable.

I do not of course limit my invention to the described methods of manufacture nor to the precise disposition of the metal. The corrugating of the sheet or plate is for the purpose
30 of giving it requisite strength, and these corrugations are preferably rounded, although they may be angular, or the invention might be utilized in a metallic lathing wherein the
35 metal of the plate was slitted and turned out to form the lips or the loops may be formed in the plain portions, the essential feature of the invention being the formation of the lips which are turned out or rearwardly from the
40 plane of the plate, while the loops are turned out in the opposite direction as described even without the corrugations.

Without, therefore, limiting my invention to the precise details of construction herein
45 shown and described, I claim—

1. A metallic lathing consisting of a sheet of metal having its body composed of alternating corrugated and plain portions and the
50 corrugations and the metal thereof bent rearwardly from the face of the plate to provide lips to control the disposition of the mortar

in forming the key and the corrugated portions being bent or arched upwardly above the plane of the plain portions, substantially
55 as described.

2. A metallic lathing consisting of a sheet of metal having its body composed of alternating corrugated and plain portions and the
60 body being slitted along the margins of the corrugations and bent rearwardly from the face of the plate whereby to provide lips, and the corrugated portions being bent or arched upwardly above the plane of the plain portions and the lips being projected toward the
65 apex of the corrugations, substantially as described.

3. A metallic lathing consisting of a sheet of metal having its body composed of alternating corrugated and plain portions, the
70 metal of the plain portion being slitted at intervals along the margins of the corrugations and bent rearwardly from the face of the plate to provide lips, the lips on either side of each corrugation extending toward each other,
75 thereby, in combination with the corrugations, forming channels to control the disposition of the mortar in forming the keys, substantially as described.

4. The herein-described metallic lathing
80 comprising a metal sheet or plate having its body composed of alternating corrugated and plain portions and slitted at the margins of the corrugations and the metal at the margins of the slits being turned out at an angle to
85 the plain portions of the body to form lips, the angles formed by the lips being greater than that of the opposing inclined portions of the corrugations whereby a wedge shaped key may be formed between such inclined
90 surfaces, substantially as described.

5. A metallic lathing consisting of a sheet of metal having its body provided at intervals with parallel slits, the metal of the sheet
95 at the edges of the slit being turned out or rearwardly from the face of the plate to form lips, said lips projecting toward each other and the metal between the slits being turned in the opposite direction from the lips and providing loops, substantially as described.

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Witnesses:

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