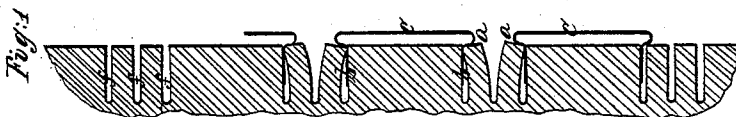
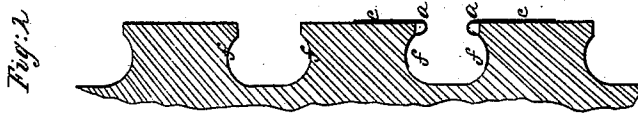
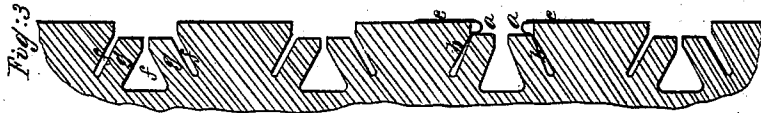
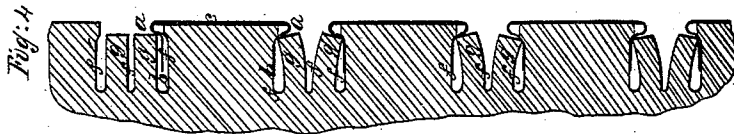
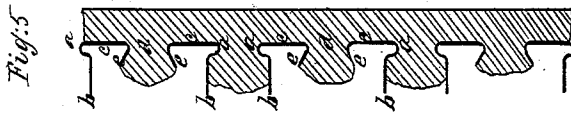
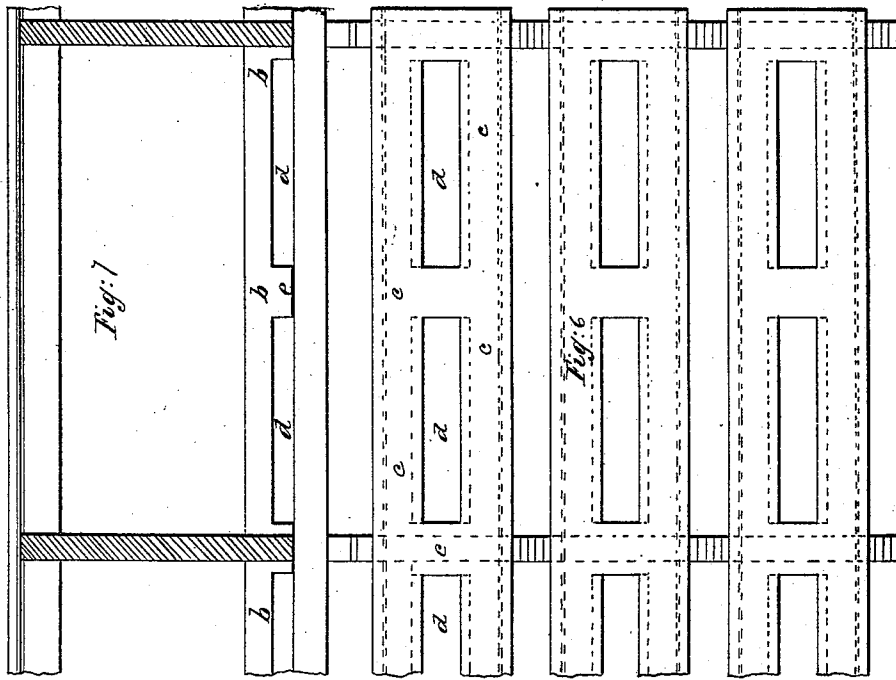


I. V. Holmes.

Metallie Lath.

N^o 84,881.

Patented Dec. 15, 1868.



Witnesses

A. C. Felton.
Walter W. Scott.

Inventor

Isaac V. Holmes



ISAAC V. HOLMES, OF NEW YORK, N. Y.

Letters Patent No. 84,881, dated December 15, 1868.

IMPROVED METALLIC LATH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ISAAC V. HOLMES, of the city and county of New York, in the State of New York, have invented a new and improved Metallic Lathing, as a supporting-surface for the plaster used upon walls, and of fastening such lathing to the studding which supports it; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification, in which—

Figures 1, 2, 3, and 4 represent some of the different forms of slits in studs, into the openings of which laths are to be received and fastened.

Figure 5 represents an end view of three laths in position, with the plaster coat spread upon them, and keyed and fastened, by portions of the plaster having passed into the openings provided for that purpose, the stud having been removed in order to present this view.

Figure 6 represents an elevation, showing the openings in and between the laths.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my laths of sheet-iron, of greater or less thickness, according to the requirements of the wall as to strength, and of such length as may be cheap in the manufacture and convenient in the use of them, and of such widths as may best secure the same objects, and the additional objects of holding the coat of plaster and its equable and uniform drying, so as to prevent its cracking.

I make them of uniform thickness and width, except that each lath shall be formed so much narrower at one end than at the other, as to allow that end to be slipped into the adjoining end of the next lath, so that my laths may be spliced, in that way, to each other. Such joints may be made either between the studs or at the point of being fastened to them, and when at that point, laths forming ends may be fastened to the stud by the same operation, as hereinafter described.

I bend back equal portions of both the upper and lower edges, *b b*, of the lath, nearly at right angles to its face, and such portions of each as will be sufficient, when so bent back, to hold, in conjunction with the similar bent edge of the next adjacent lath, the plaster, when forced between them.

The series of slits, three in each series, *f f f*, are made in the front edges of the studs, for the reception of these edges, leaving proper intervals between each and the next, so that the laths, when their edges are inserted in the slits, may be confined and fastened, as hereinafter described, and as shown in the drawings, by the tongues *g g*.

The lath is so constructed as to present beaded corners, *a a a*, which co-operate with the edges, *b b*, to hold the mortar in place when forced between two adjoining laths.

Then, as a further means of fastening the plaster in position, securing its equable drying, and preventing its cracking, I make oblong rectangular openings, *d d*, in the lath, of such length, and at such intervals apart, as may best attain the objects in view.

It is done thus: I cut or punch two slits, parallel to each other, across the face of the lath, and as wide apart as the opening is intended to be long, and equidistant from the upper and lower edges of the face of the lath; then I cut or punch a longitudinal slit in the centre of the lath, extending from one of these cross-slits to the other, and then bend back from the face of the lath each edge, *e e*, of the slit, just as I bend back each edge of the lath itself, as before described; and I do this, not only to make the opening for the mortar to enter, thus removing a portion of the smooth lath-surface, but also in order that these bent-back edges of the slit may aid the bent-back edges of the lath *b b* and the beaded corners, *a a a*, to key, and hold the plaster coat firmly in place, as shown at *d* and *e e e e*, fig. 5.

The edges of the iron studs are, of course, presented to the laths at the points where the two edges of adjacent laths are to be fastened upon them, and there a series of three slits is cut, *f f f*, and thus the two tongues, *g g*, are formed.

The lower edge of one lath is placed in the upper slit in the stud, and the upper edge of another lath is placed in the lower slit (of same series) in the stud, and then a drift-tool or wedge is driven into the middle slit, and by one operation, and perhaps by one blow upon the tool, the edge of each lath is securely fastened, by the mere bending down upon it of the iron tongues *g g*; and thus the laths are fastened upon the stud without either bolt, nail, or screw, when the tool is withdrawn.

By this, my arrangement of the laths upon the studding, they may be placed just as far apart as may be desired, in order to make the most effectual use of the beaded corners, *a a a a*, and the edges, *b b*, and to secure the objects before mentioned.

By my construction of my laths, and their arrangement upon the studding, a much larger portion of the plaster used can be reached and dried by the air, on the rear side of the coat, than by any other known or used heretofore.

The bending back the edges of the laths, and the edges of the slits made in forming the openings, as described, greatly increases the stiffness of the lath, and thus enables it to resist, more effectually, pressure or concussions upon its surface.

I do not claim broadly the openings herein described, when made generally and in any metallic sheet-lathing, such openings having been before made in broad sheets of metal, used for lathing, without regard to their size or form.

What I claim, and desire to secure by Letters Patent, is—

1. The metallic sheet-lath described, when provided

with rectangular openings, made by slitting the lath and bending back the edges *e e*, substantially as and for the purpose described.

2. A lath, when constructed of sheet-metal, with its edges bent back, so as to present the beaded corners, *a a a*, and applied substantially as and for the purpose described.

3. The construction of the described metallic sheet-lath, when made with a tapered form at one end, with a view to splicing or jointing, substantially as described.

4. The metallic plates, slitted as described, when used for studs or supports for metallic sheet-laths, substantially as shown and for the purpose described.

5. The arrangement and fastening of sheet-metal laths upon metallic plates, used for studs, substantially in the manner and for the purpose described.

ISAAC V. HOLMES.

Witnesses:

H. C. FELTON,
JOHN CANTINE.