

G. P. CRUMBAUGH.

METAL LATH.

APPLICATION FILED APR. 28, 1913.

1,090,690.

Patented Mar. 17, 1914.

Fig. 1.

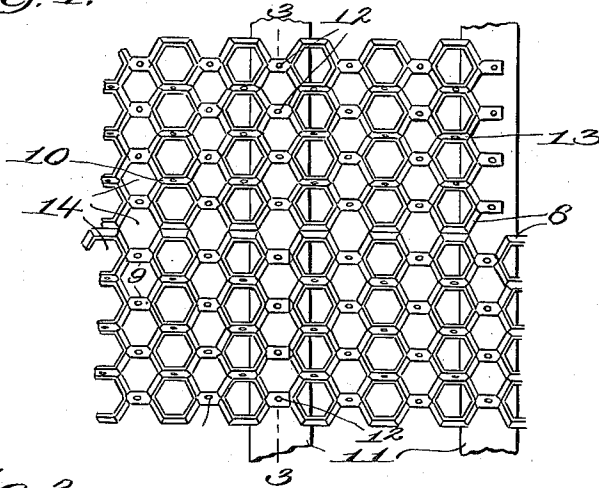


Fig. 2.

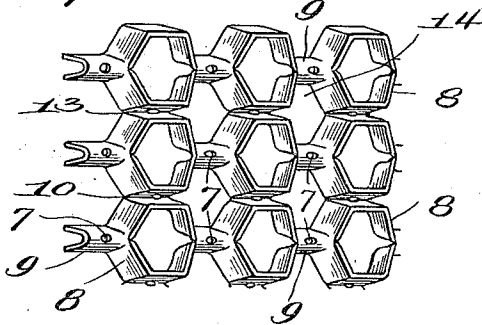


Fig. 3.

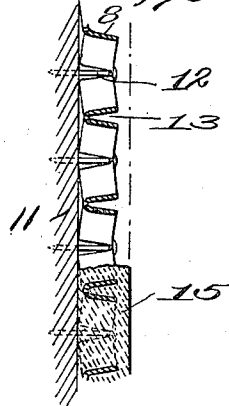
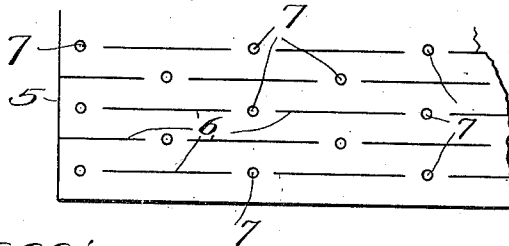


Fig. 4



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UNITED STATES PATENT OFFICE.

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METAL LATH.

1,090,690.

Specification of Letters Patent.

Patented Mar. 17, 1914.

Application filed April 28, 1913. Serial No. 764,221.

To all whom it may concern:

Be it known that I, GEORGE P. CRUMBAUGH, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented new and useful Improvements in Metal Laths, of which the following is a specification.

This invention relates to improvements in metal laths of that type which are formed from a metal blank and bent and drawn to produce a plurality of successive cells which open therethrough and are presented in edgewise position for the reception of a plaster covering, and the primary object in view is to economically manufacture a metal lath which will hold plaster securely in position on the surface of a wall or ceiling and one which may be readily applied to a supporting means without the use of independent securing strips.

A further object of the invention is to simplify the general construction and organization of cellular metal laths and to facilitate their application to a supporting means by utilizing portions of the lath to directly receive the fastenings.

With these and other objects and advantages in view, the invention consists in the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawing:—Figure 1 is an elevation of a portion of a support or wall showing the improved metal lath applied thereto; Fig. 2 is a detail perspective view of a portion of the lath; Fig. 3 is a transverse vertical section taken in the plane of the line 3—3, Fig. 1; Fig. 4 is a plan view of a portion of the blank from which the improved lath is constructed.

The numeral 5 designates a blank of sheet metal of suitable thickness which is primarily formed with a plurality of cuts or slits 6 arranged in alternation as shown by Fig. 4 so as to regularly release portions of the metal for bending purposes, and this blank is also provided with openings 7 between the terminals of the slits or in those portions of the blank which are bent to provide connectors for the successive cells. The blank is bent to produce the improved cellular structure by any suitable means, and the lath organization comprises a series of truncated members 8 forming the cells which are, as shown, of substantially hex-

agonal contour and centrally connected by tubular or hollow necks 9 in longitudinal directions and also by connecting bends 10 in vertical directions, said bends being located between contiguous walls of the members 8. The members 8 are fully open both at the front and rear and are of truncated contour, and thus the rear openings are larger than the front openings so as to produce a key of the dovetail type or a key which increases in dimensions rearwardly with relation to each cell. The openings 7, after the cells and necks 8 and 9 are bent into shape as shown by Fig. 2, are disposed in the central portions of the necks and of the bends 10, and where the necks engage supports 11, such as studding of the wall frame or if applied against a partition, suitable fastenings 12 are driven through the openings in the necks at regular intervals apart to secure the lath in applied position without requiring the use of metal strips or other attaching means.

So far as the form of the blank shown by Fig. 4 or the exact manner of bending the metal into shape to produce the desired cellular organization is concerned, any primal construction of blank may be adopted and the cell members may be modified in contour, it being only necessary in accordance with the features of the invention to have a plurality of cells or cell members connected in one direction by the intermediate necks 9 and united in a direction at right angles to the necks by portions of the contiguous walls of the cell members, and, further, to provide the necks with the openings 7 for receiving securing devices at intervals and also to form similar openings in the bends, uniting the contiguous walls of the cell members as additional key means or into and through which the plaster covering may be forced with material advantage in maintaining the said plaster covering in position, and positively holding the said covering against separation in all directions by resisting the weight and other strain that may be imposed upon this covering.

It will be understood that the improved metal lath may be made in strips of any suitable size or dimensions or in large sheets and may be readily applied in operative position with material saving in the cost and time required to apply a key base means to a wall framing or support, by reason of

the fact that the cellular lath embodying the features of the invention, if formed in strips of predetermined widths, will have dimensions that will cover an area ordinarily requiring six, eight or more laths of ordinary wood structure to cover. It is also proposed to construct the improved metal lath of non-corrosive metal or to treat the same so as to resist corrosion and, structurally, one of the important features is the hollow nature of the necks 9 which materially strengthen the lath as a whole on the principle of the arch, and the double bearing which the terminals of the sides of the necks afford when applied to studding or other wall-supporting frames.

The cell members 8 also have V-shaped recesses 13 formed between the walls thereof connected by the bends 10, and, furthermore, each of the said cells is intermediately bent or dipped to dispose the sides in rearwardly diverging planes as shown by Fig. 3, and by this means, an additional key-providing structure is embodied in the lath. Moreover, the plaster when applied to the cells will be given a greater resistance to fracture or tendency to fall away from the lath members. It will also be seen that between the cell members and the necks, plaster-receiving spaces 14 are also provided, and through the medium of the multiplicity of openings and recesses, the plaster covering is reinforced in all directions, and when the plaster is applied to the lath the latter is practically enveloped or inclosed by the said covering, as shown at 15 in Fig. 3.

While the improved lath is particularly adapted for covering walls for receiving plaster, it will be understood that any other use of the same may be adopted without requiring any change in the structure or general organization of the same.

What is claimed is:—

1. A metal lath comprising a plurality of successive cell members having connecting necks between them with fully open rear

sides for producing bracing arches and also having openings therethrough, the said cells being intermediately bent to dispose the sides in rearwardly diverging planes. 50

2. A metal lath comprising a plurality of successively arranged cell members each intermediately bent to dispose the sides at an angle to each other and having connecting necks between them and a portion of the walls bent and uniting the said members in a direction at right angles to the said necks, the necks at the bent portions of the walls being approximately V-shaped and opening out at reverse sides of the lath. 55 60

3. A metal lath comprising a plurality of cell members intermediately bent to dispose the sides at an angle to each other and provided with connecting necks all extending in one direction and also having portions of the walls of each two adjacent cell members united by bends in a direction at right angles to the necks, the necks and the bends having openings formed therein for the reception of fastening devices and also to provide additional key means. 65 70

4. A metal lath of the class specified, comprising a plurality of cell members each intermediately bent to dispose the sides at an angle to each other and having the openings therein exteriorly exposed and increasing in dimensions toward the rear thereof, the cell members being united by necks intermediately connected thereto and all extending in one direction, portions of the walls of each pair of cell members being also connected by bends in a direction at right angles to the necks, the necks and the bends of the walls having openings formed therein. 75 80 85

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

GEORGE P. CRUMBAUGH.

Witnesses:

H. H. McCULLY,
F. N. HAMMERS.