

UNITED STATES PATENT OFFICE.

WILLIAM C. SCHAPER, OF ST. LOUIS, MISSOURI.

METALLIC LATHING.

SPECIFICATION forming part of Letters Patent No. 538,467, dated April 30, 1895.

Application filed December 10, 1894. Serial No. 531,401. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SCHAPER, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Metallic Lathing, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to metallic lathing, and is an improvement on the metallic lathing described in the application filed by me on August 11, 1894, Serial No. 520,029, and allowed September 15, 1894, and consists in certain novel features of construction, hereinafter described and claimed.

The object of my invention is to construct from single sheets of metal, lathing that is simple, durable, inexpensive, especially strong and that requires less plaster to a given space than is required by metallic lathings of other constructions.

A further object of my invention is to construct a metallic lathing that will be especially efficient in holding the mortar in place upon its face.

A further object of my invention is to so locate and form the protruding lips on the sheets of metal as that all expansion and contraction of the sheets during the formation of the lathing will be entirely overcome.

In the drawings, Figure 1 is a plan view of a section of my improved metallic lathing. Fig. 2 is a sectional view on the indicated line 2 2 of Fig. 1. Fig. 3 is a sectional view on the indicated line 3 3 of Fig. 1. Fig. 4 is a longitudinal sectional view on the indicated line 4 4 of Fig. 1. Fig. 5 is a plan view of a section of a modified form of my improved metallic lathing. Fig. 6 is a longitudinal sectional view on the indicated line 6 6 of Fig. 5. Fig. 7 is a sectional view on the indicated line 7 7 of Fig. 5.

Referring by numerals to the accompanying drawings, 1 indicates the body or sheet of metal out of which the lathing is formed, said sheets of metal being of any suitable size and thickness.

The means employed to form the corrugations, slits, lips, &c., in the sheet metal body may vary as desired, as numerous methods, such as stamping, pressing, or passing the

sheet metal sections through rollers specially formed will accomplish the desired result.

The shaded portion, indicated by the numeral 2, is that portion that rests or engages directly against the rafters, boards, or to whatever the lathing is secured, and may be properly termed the base of the lathing, this base 2 remaining intact and occupying the plane originally occupied by the upwardly bent portions of the lathing. Extending upwardly from the base 2 and parallel with each other are lips or corrugations 3, the inner faces or edges of said corrugations being indicated by the numeral 4. The ends of these corrugations are rounded, as indicated by 5, and in the rear of said corrugations at the point where they are bent upwardly from the base 2 is formed longitudinal slits 6, the edges 7 of which are bent into a plane approximating that of the inner edges 4 of the corrugations. This will necessarily form valleys or depressions 8 in the longitudinal corrugations 3.

Strips 9 are preserved between the corrugations 3 and are bent into a plane slightly below the plane occupied by the base 2. Extending longitudinally of these strips 9 are upwardly projecting ribs 10. The portion 11 of the base 2 is bent into a plane approximately half way between that of the base 2 and the upper inner edges of the corrugations 3.

I have found that by alternately forming the pairs of lips or corrugations at right angles to one another in their parallel lines, the expansion and contraction of the sheets of metal are entirely overcome. Thus by my improved construction, buckling, bending or breaking of the sheets of metal during the formation of the corrugations therein, and deleterious results from heat, cold, moisture, &c., are entirely prevented. In the raised portion 11 of the sheets 1 between the pairs of corrugations are rectangular apertures 12, the edges 13 of which are bent upwardly and then inwardly, said inwardly bent portions terminating in the same plane with the upper inner edges 4 of the lips or corrugations 3.

In the modified form of lathing shown in Fig. 5, the lips or corrugations 3 are dispensed with and strips 14 provided with longitudinal V-shaped depressions 15 are bent upwardly from the base 2. These strips 14 are alter-

nately formed at right angles to one another, in order to overcome the contraction and expansion of the metal, as previously stated.

In the upwardly bent portion 11 of the section 1 are formed rectangular openings 16, the inner edges of which are bent upwardly and inwardly, as indicated by 17.

In the practical use of my improved lathing, it is applied to the interior walls and ceilings of buildings in the ordinary manner, and the mortar applied directly upon the face of said lathing. Said mortar being plastic, it will readily enter the space between the edges 4 of the lips or corrugations, and as pressure is applied to said mortar, it will contact with the longitudinal strips 9 and by said strips be deflected in opposite directions. By reason of this deflection, portions of the mortar will engage beneath the lips and corrugations 3 and when said mortar becomes hardened it will be very firmly keyed or held in position upon said lathing. A portion of said mortar will also enter the slits beneath the portions 7, and also through the rectangular apertures or openings 12 and engage beneath the inwardly bent edges 13 of said apertures.

When mortar is applied to the modified form of my improved lathing, said mortar will engage beneath the upwardly bent strips 14 and beneath the inwardly turned edges of the rectangular apertures or openings 16. Thus it will be seen how the mortar will be firmly positioned upon the face of the lathing and liability of the same becoming broken or disengaged therefrom reduced to a minimum.

By bending the major portion of the section 1 and the portion indicated by the numeral 11 into a plane slightly above that occupied by the base portion, it will be seen how a smaller quantity of mortar will be required to cover a given surface than if metallic lathing of the ordinary construction be used. It will also be seen that by bending or forming the body of the section 1 into two different planes, said sections will be greatly increased in strength and lasting qualities.

As hereinbefore stated, by forming the bases 2 from which extend or protrude the lips or corrugations alternately at right angles to each other, the expansion and contraction of the sheets of metal during the formation of the corrugations or lips, and also when the lathing is in practical use, will be entirely overcome. Thus will be seen how I have constructed a metallic lathing that possesses superior advantages in point of simplicity, durability and general efficiency.

What I claim is—

1. A metallic lathing having its body por-

tion bent into differential planes, corrugations bent from the lowermost plane upward in such a manner that their inner edges face each other, said corrugations or lips being arranged alternately at right angles to one another for the purposes specified.

2. A metallic lathing having its body portion bent into differential planes, corrugations bent from the lowermost plane upward in such a manner that their inner edges face each other, said corrugations being provided with a slit and lip at the juncture of the corrugation and the body portion, said corrugations and lips being alternately arranged at right angles to one another to overcome expansion and contraction of the section in which they are formed.

3. A metallic lathing, consisting of a sheet of metal having its body bent into differential planes, pairs of lips or corrugations bent from the lowermost plane alternately at right angles to one another and in such a manner as to leave deflecting strips between said lips or corrugations, and lips formed by slitting the rear sides of the corrugations.

4. A metallic lathing, consisting of sheets of metal having pairs of corrugations or lips bent from the body portion alternately at right angles to each other.

5. A metallic lathing, consisting of sheets of metal having their bodies bent into differential planes, and pairs of lips or corrugations bent from the lowermost planes, rectangular apertures having their inner edges bent upwardly and inwardly, said lips or corrugations being arranged alternately at right angles to one another.

6. A metallic lathing, comprising a sheet of metal, its body being bent into differential planes, strips provided with longitudinal V-shaped depressions bent from the lowermost plane of the body portion and arranged alternately at right angles to one another.

7. A metallic lathing, comprising sheets of metal, the bodies of which are bent into differential planes, strips bent from the lowermost plane upwardly, said strips being provided with longitudinal V-shaped depressions and arranged alternately at right angles to one another, and rectangular apertures or openings, the edges of which are bent upwardly and inwardly for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM C. SCHAPER.

Witnesses:

E. E. LONGAN,
JNO. C. HIGDON.