(No Model.)

B. SCARLES.

METALLIC LATHING.

No. 346,317. Patented July 27, 1886.

Fig. 1.

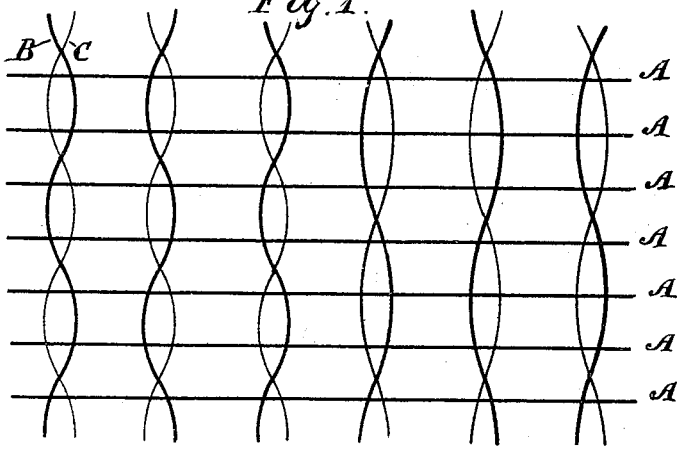


Fig. 2.

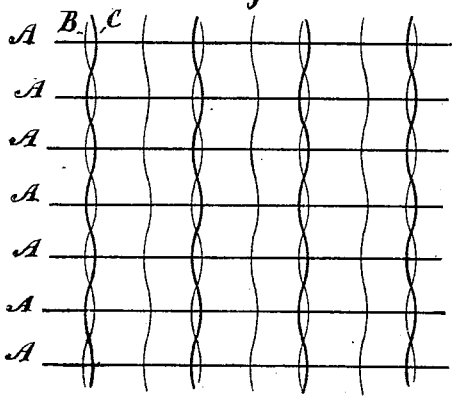


Fig. 3.

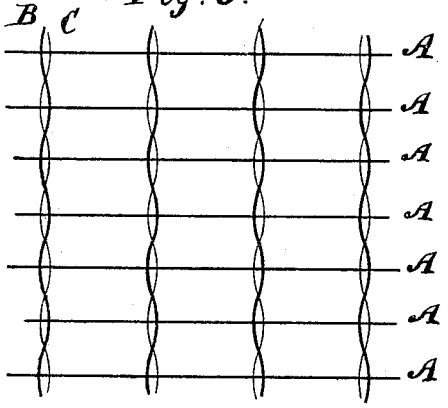
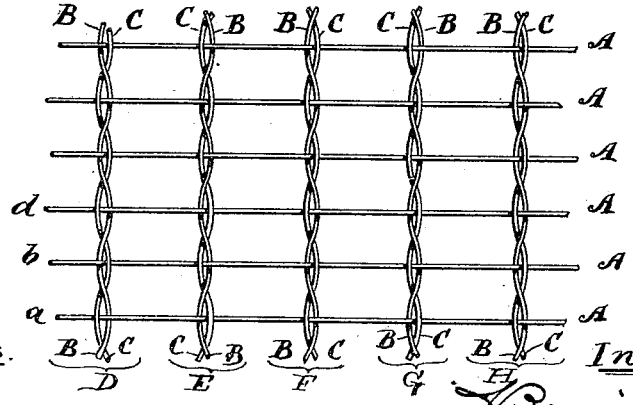


Fig. 4.



Witnesses.
C. Sianta.
L. J. White.

Inventor.
Benjamin Scarles,
Per C. C. Shaw
Attorney.

UNITED STATES PATENT OFFICE.

BENJAMIN SCARLES, OF CLINTON, MASSACHUSETTS, ASSIGNOR TO THE CLINTON WIRE CLOTH COMPANY, OF SAME PLACE.

METALLIC LATHING.

SPECIFICATION forming part of Letters Patent No. 346,317, dated July 27, 1886.

Application filed February 14, 1885. Serial No. 155,956. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN SCARLES, of Clinton, in the county of Worcester, State of Massachusetts, a subject of the Queen of Great Britain, have invented a certain new and useful Improvement in Metallic Lathing, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a diagram of this improved metallic lathing, wherein the strands of the double warp-wires form loops embracing two or more filling-wires. Fig. 2 is a diagram of this improved metallic lathing, wherein the strands of the double warp-wires are cross d and recrossed at intervals in the fabric, the direction of the crossing of the strands of adjacent double wires alternating, a single wire being shown between the double wires. Fig. 3 is a diagram of this improved metallic lathing, wherein the strands of two adjacent double warp-wires are crossed and recrossed in the same direction, the strands of the next two double warp wires being crossed and recrossed in the opposite direction. Fig. 4 is a plan view of this improved wire lathing in one of its forms.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention is designed as an improvement on the metallic lathing shown and described in Letters Patent of the United States No. 273,412, dated March 6, 1883; and it consists in a novel construction and arrangement 4 of the parts, as hereinafter more fully set forth and claimed, by which a firmer and more desirable article of this character is produced than is now in ordinary use. In the lathing shown in said Letters Patent the double warp-wires are crossed and recrossed uniformly throughout the web. For instance, take either strand or member of a pair of the double warp-wires, and by tracing it through the fabric it will be found to be interwoven in precisely the same manner as its corresponding member in either of the other pairs—that is to say, it turns to the left or right and passes over or under the filling-wires, as the case may be, the same as the corresponding wires do in each of the other pairs. It is important in lathing of this character that the warp and filling wires should maintain their position at right angles with each other, both in the web and and after it is applied to the building; but in actual use it has been found that if it is constructed as shown in said patent, although an improvement over the ordinary lathing having single warp-wires, it is nevertheless slightly defective, the imperfection arising from the fact that the double warp-wires are all twisted or crossed and recrossed in the same direction, thus producing a uniform strain on the filling-wires in one direction and bending or curving them from end to end or causing them to incline more or less to the warp-wires.

My improvement is intended to obviate this objection; and to that end I make use of means which will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the filling-wires, and B C the warp-wires, special reference being had to Fig. 4. The filling-wires may be of any desired size and length, and the warp-wires of any required gage or size, a suitable number being employed in accordance with the width of the fabric. The warp-wires are double or arranged in pairs, and are crossed and recrossed in the web in such a manner as to hold the filling-wires in position with sufficient firmness to enable the fabric to be handled and applied to the building without unduly displacing them.

For convenience of reference I have marked the respective pairs of warp-wires (shown in the piece of cloth illustrated in Fig. 4) with the letters D E F G H, and it will be seen by tracing the wires of either pair from end to end that they are crossed and recrossed in a direction opposite those at either side. For instance, beginning at the left-hand side of the web, the wire B passes to the right under the filling-wire *a*, thence to the left over the warp-wire C and under the filling-wire *b*, thence to the right over the warp-wire C and under the

filling-wire *d*, and so on through the web, the other member, C, of the left-hand pair of warp-wires passing in each instance in an opposite direction. Taking the next adjoining pair of warp-wires, it will be seen that the wire B, instead of passing to the right under the filling-wire *a*, passes to the left under said wire, thence to the right over the wire C and under the filling-wire *b*, thence to the left over the wire C and under the filling-wire *d*, and so on its entire length, its companion wire C being crossed and recrossed in precisely opposite directions. In the third pair the warp-wires are crossed and recrossed in the same manner as in the first pair, this order being maintained throughout the fabric. In Fig. 1 the strands of the warp-wires are crossed between every second, third, or other pair of filling-wires, the strands thus forming loops embracing two or more filling-wires. In Fig. 2 this improved lathing is shown as provided with one or more single warp-wires introduced between each pair of crossed warp-wires. In Fig. 3 two adjoining pairs of warp-wires at the left are crossed in one direction and two adjoining pairs at the right in an opposite direction. I do not, however, deem it advisable to twist more than three or four adjoining pairs of the warp-wires in the same direction, under any circumstances, if the best results are to be obtained.

It will be obvious that the twisting or crossing and recrossing of the warp-wires gives them a firmer hold of the filling-wires, and thereby tends to keep them, as well as the filling-wires, in proper position in the fabric when the same is roughly handled, either in fitting it to the building or applying the plastering. The double warp-wires also aid materially in attaching the lathing to the furring, as they afford a firmer and much better hold for the staples or clamps than single wires. They may also be arranged at regular intervals throughout the web, if desired, and thereby assist in measuring the lathing after it is applied.

Having thus explained my invention, what I claim is—

1. A wire lathing composed of interwoven warp and filling wires, certain of said warp-wires being double, with the strands or members thereof crossed and recrossed at intervals in the fabric, one or more pairs of said warp-wires having their strands or members crossed and recrossed in a manner or direction opposite those of one or more of the other pairs of warp-wires in the same fabric, substantially as and for the purpose set forth.

2. A wire lathing composed of interwoven warp and filling wires, said warp-wires being double, with the strands or members thereof crossed and recrossed at intervals in the fabric, the strands of one of said warp-wires being crossed and recrossed in a manner or direction opposite to those of its contiguous warp-wires on either side, substantially as described.

3. A wire lathing composed of interwoven warp and filling wires, certain of said warp-wires being double, with the strands or members thereof crossed and recrossed, forming loops embracing two or more filling-wires, substantially as described.

4. A wire lathing composed of interwoven warp and filling wires, certain of said warp-wires being double, with the strands or members thereof crossed and recrossed, forming loops embracing two or more filling wires, one or more pairs of said warp wires having their strands or members twisted in a direction opposite to the twist of the strands of one or more of the other pairs of warp-wires in the same fabric, substantially as described.

5. A wire lathing composed of interwoven warp and filling wires, said warp-wires being double, with the strands or members thereof crossed and recrossed, forming loops embracing two or more filling wires, the strands of one of said warp-wires being crossed and recrossed in a manner or direction opposite to those of its contiguous warp-wires on either side, substantially as described.

BENJAMIN SCARLES.

Witnesses:
C. M. DINSMORE,
CHAS. SUMSCOE.