(No Model.)

C. BROWN.

ARTIFICIAL SLATE.

No. 399,374. Patented Mar. 12, 1889.

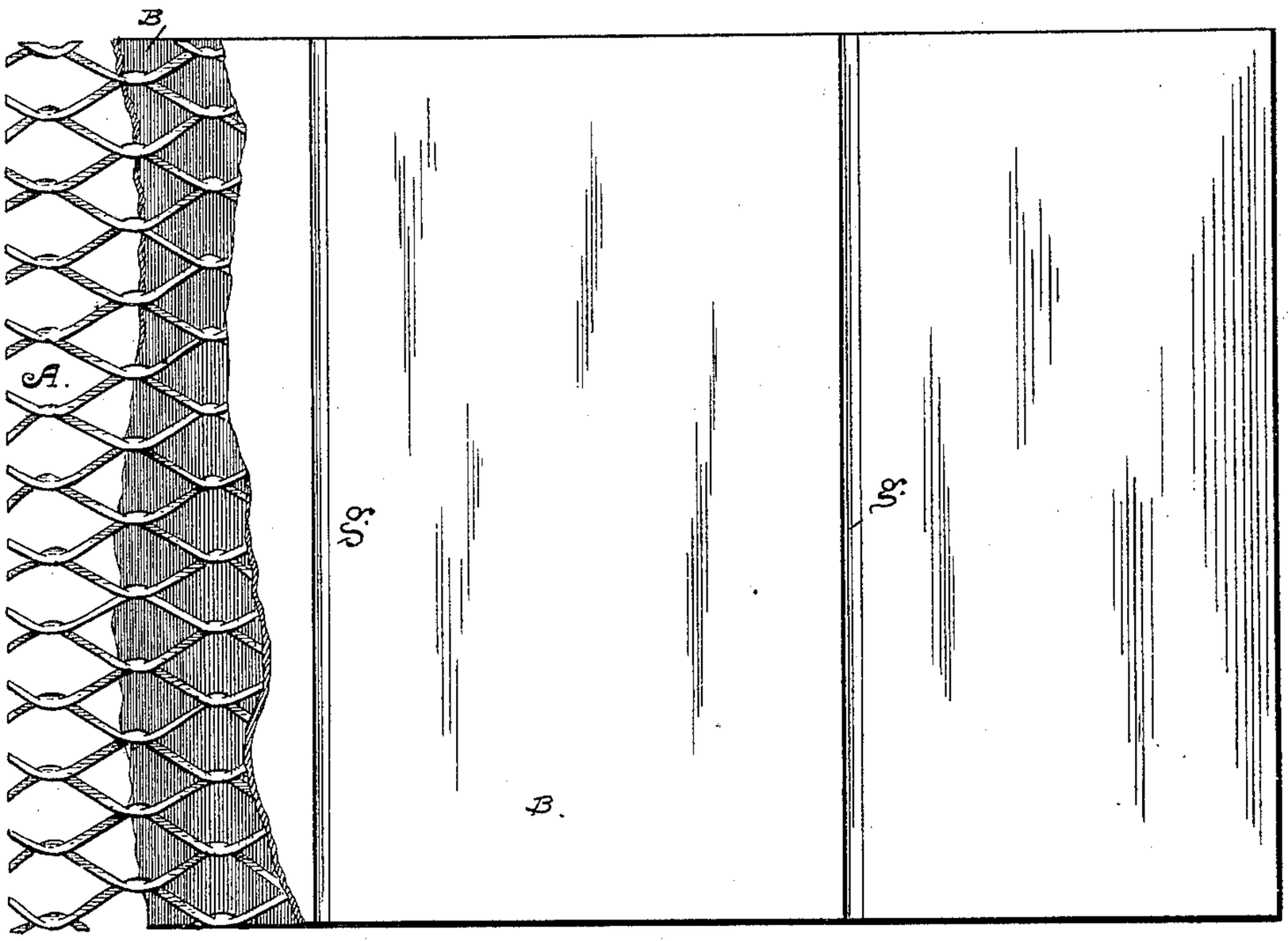

Fig. 1.

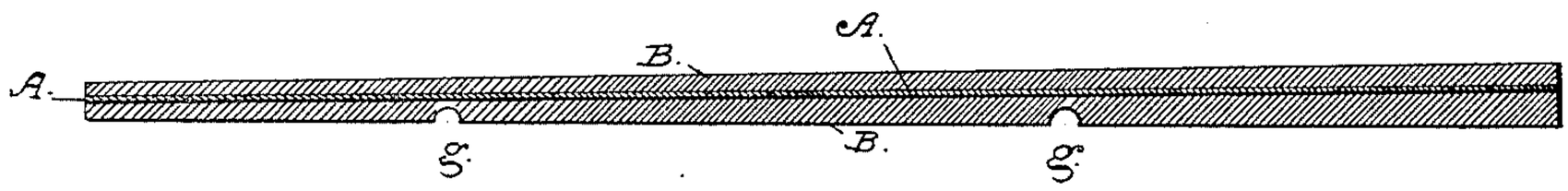

Fig. 2.

Witnesses:

Frank K. Eastman

J. H. Miller

Inventor:

Calvin Brown

By J. P. Langhorne, Atty.

UNITED STATES PATENT OFFICE.

CALVIN BROWN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO JOHN H. MILLER, OF SAME PLACE.

ARTIFICIAL SLATE.

SPECIFICATION forming part of Letters Patent No. 399,374, dated March 12, 1889.

Application filed January 7, 1888. Serial No. 260,032. (No model.)

To all whom it may concern:

Be it known that I, CALVIN BROWN, a citizen of the United States, residing at the city of San Francisco, county of San Francisco, and State of California, have invented a new and useful article of manufacture—to wit, an Artificial Slate—of which the following is a full, clear, and exact description.

My invention relates to improvements in roofing and sheathing buildings and other structures; and the object thereof is to obtain an artificial slate of durable and incombustible quality to take the place of and be used for the same purposes as natural slate; and it consists in making, forming, and molding such artificial slate, and in the product so produced and in the peculiar form and configuration of the slabs or strips thereof, as will be hereinafter more particularly explained. I attain these objects by the manufacture of the slate or strips illustrated in the accompanying drawings, in which—

Figure 1 is a plan showing an under side view of a slate with a part of its interstitial web projecting beyond the plastic material forming the body of the slate. Fig. 2 is a vertical longitudinal section of a slate, showing the web wholly inclosed by the body material.

Similar letters refer to similar parts throughout the several views.

A is an interstitial web. It may be formed of wire, but preferably, on account of its superior stiffness, of "expanded metal" or "slashed metallic screening," made according to the specification of United States Letters Patent No. 297,382, granted to John F. Golding on April 22, 1884. The web is of the same or nearly of the same lateral dimensions as the slate.

The body material B B may be of any impervious, durable, and incombustible substance susceptible of being made plastic, and in this condition worked around and through the interstitial web, afterward becoming hard and indestructible and adhering closely thereto. These conditions are fulfilled by the use of the best qualities of Portland cement; but it is evident that any mastic of suitable materials properly prepared may be used for the production of a slate or slab with such an interstitial web.

The slate may be of uniform thickness; but for roofing purposes it is better that it should be made thicker at the butt, diminishing gradually to the opposite end, where it can be molded of any desirable thickness, even down to the point of the interstitial web, or the web itself may project beyond the body material, as shown in Fig. 1.

On the under side of the slate grooves g' g' are formed, the same being caused by and left from the molding operation by which the slate is formed, and may be availed of in laying the slate in place upon the roof, as hereinafter mentioned. The slate is molded in an open frame or mold, across which laterally are placed rod-supports for the sheet of interstitial web, by which means the web is raised above the molding-bed on which the frame rests, and thus admits of the plastic body material, when fitted into the mold, being distributed through and below the web. After the plastic material is consolidated into the mold by tramping or by pressure and the perfectly-formed slate is removed therefrom the grooves remain, so that afterward when the slate is to be laid in place these grooves may be placed over rods adjusted upon the roof, the slate being held in position thereby, and thus prevented from slipping down upon sloping surfaces. The plastic material after the slate is formed being truly surfaced and slicked off on the upper or weather side, the under side being made plain and smooth by the molding-table upon which it is pressed, it is left for a short time to set, when the molding-frame is removed, the slate being then placed aside for further induration until it is fit for use. In this manner it is evident that slabs or strips of any desirable dimensions of the combined body material and interstitial web may be made.

In order that nails or screws may be used for fastening the slate or slabs in place, holes may be pierced in the same at the time of molding them or afterward, as may be desired.

I am aware that slabs of artificial stone have heretofore been made of plastic material in

molds to be used for various purposes; but none of such has ever been made having the interstitial web hereinabove described, nor to be used for roofing or sheathing as natural slate.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. As a new article of manufacture, an artificial slate consisting of an interstitial metallic web and a covering of set plastic material, as set forth.

2. As a new article of manufacture, an artificial slate consisting of an interstitial metallic web and coverings of set plastic material on both sides tapered from one end to the other, as set forth.

3. As a new article of manufacture, an artificial slate consisting of an interstitial metallic web and a covering of set plastic material on both sides, one side having transverse grooves therein, as set forth.

CALVIN BROWN.

Witnesses:
F. W. EASTMAN,
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