C. F. Smith,

Roofing.

No. 92,210. Patented July 6, 1869.

Fig. 1.

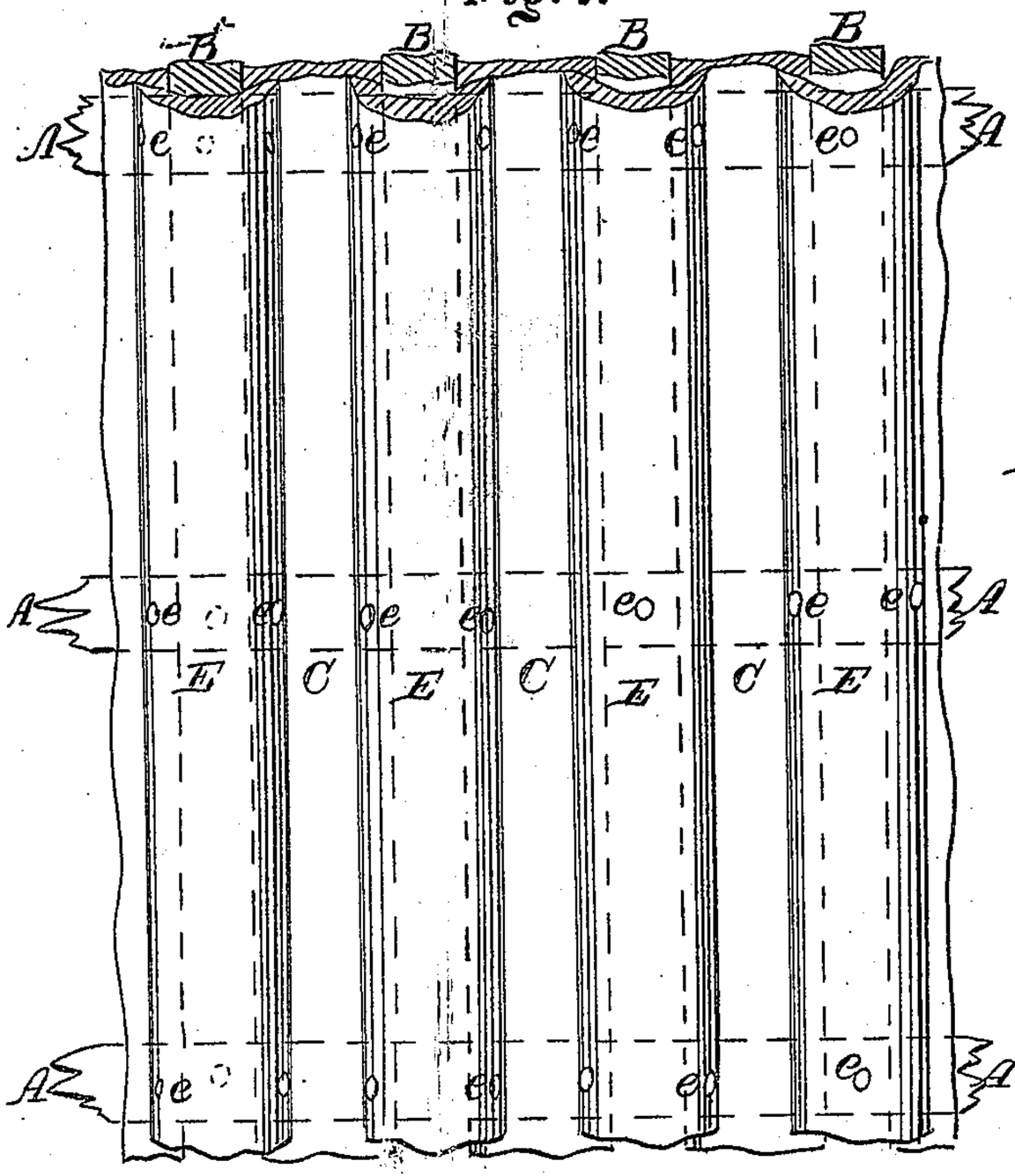


Fig. 2.

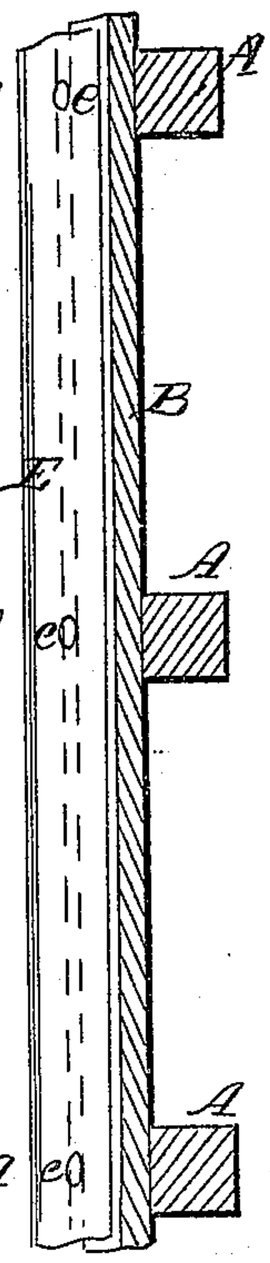


Fig. 3.

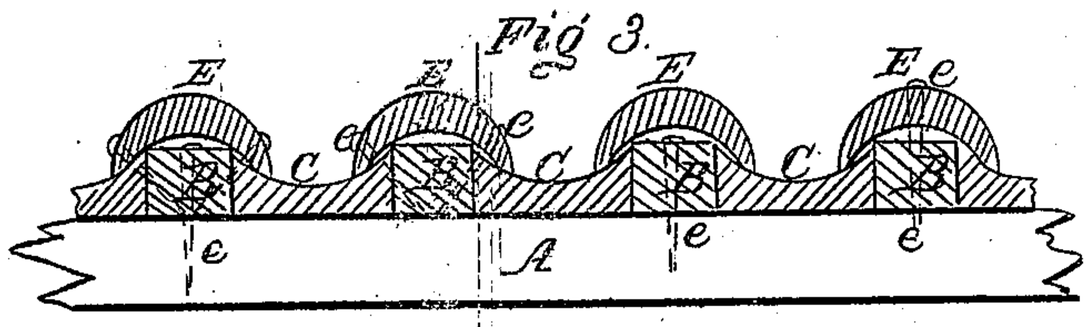


Fig. 4.

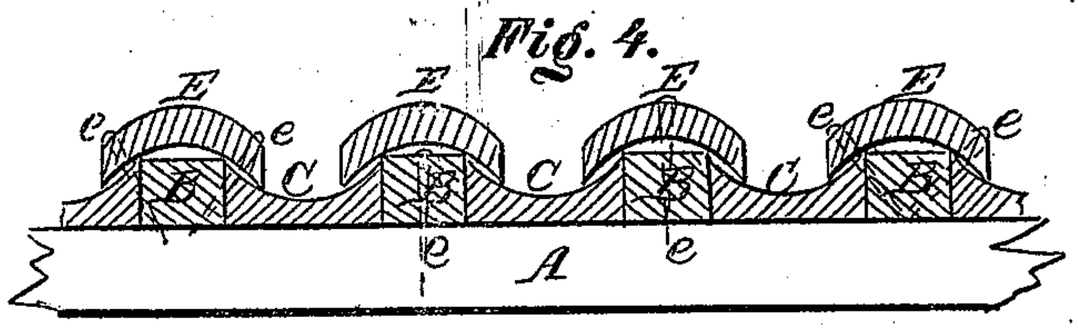
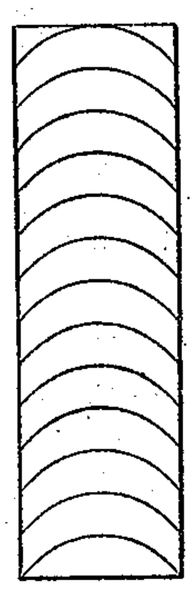


Fig. 5.



Witnesses.

C. C. Livingood

W. C. Dewey

Inventor:

C. F. Smith

by his attorney

L. L. Stevens

United States Patent Office.

CORNELIUS T. SMITH, OF NYACK, NEW YORK.

Letters Patent No. 92,216, *dated July* 6, 1869.

IMPROVED ROOFING.

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, CORNELIUS T. SMITH, of Nyack, in the county of Rockland, in the State of New York, have invented certain new and useful Improvements in Roofing; and I do hereby declare that the following is a full and exact description thereof.

My invention relates to the shaping and applying together of the boards or analogous pieces which form the surface.

I will first describe what I consider the best means of carrying out my invention, and will afterward designate the points which I believe to be new.

The accompanying drawings form a part of this specification.

Figure 1 is a top view;

Figure 2 is a section; and

Figure 3 is a cross-section.

Figure 4 is a cross-section, showing a slight modification in the form of the covering-pieces.

Figure 5 represents the manner in which the covering-pieces are sawed by a cylindrical saw, so as to economize material.

Similar letters of reference indicate like parts in all the figures.

A A represent laths, or horizontal pieces, which extend from rafter to rafter.

B B are parallel strips, extending up and down the incline.

C C are boards, or analogous pieces, formed hollow on their upper faces, as represented, so that the water falling on the roof collects in the middle of each board, and runs down in a stream in such position.

E E are strips of wood, of a curved outline in cross-section, presenting a convex face upward, and a concave face downward.

These pieces E E are considerably wider than the strips B, so that they lap upon the hollowed boards C C, as represented.

Nails *e* are driven through the pieces E.

The nails may be driven vertically down through the centre of the strips E, thus securing the strips E strongly to the strips B, without fastening directly to the hollowed boards C.

This will allow the boards a greater freedom in contracting and expanding with changes of the weather.

But I do not believe it generally necessary to leave the boards so far free, and as it is obviously necessary to hold the boards firmly by some fastening, I prefer to put the nails in the positions indicated, driving them through the pieces E, near their edges, and also through the pieces C, near their edges.

I can shape my pieces by fitting suitable cutters in a Woodworth planing-machine, or by various analogous means which will excavate hollows and shape the rounded surfaces; but I prefer to saw them with a properly-adapted saw.

I have invented a peculiar construction of saw, which forms the subject of a separate application for patent, and which I propose to use for this purpose.

Any previously-known arrangement of saws which will saw in a suitable curve, and continue the motion through the extent of a long board, may be employed.

I believe it practicable to properly guide a belt-saw so as to saw this curved work.

It is very important, in most regions, to economize the material, and it will be found that sawing in curves will produce a very close approximation to the best possible form for the covering-pieces E, without wasting.

Fig. 5 shows the way several of my covering-pieces are got out by the saw, the hollow side of one and the swelled side of the other matching together. The arrangement gives the greatest thickness along the middle, exactly as is required in practice. The great swell of the upper face sheds the water freely, while the hollow of the under face deflects the edges down into the hollow of the boards C, and prevents the water from reaching the central fastening-pieces.

I am aware that some of the elements of my roofing have been before known in the same form, and that hollowed cap-pieces have been before employed, both in wood and metal, to cover joints in roofs. Such I do not claim alone; but

I claim as my invention, and desire to secure by Letters Patent—

The within-described arrangement of the intermediate fastening-pieces B, the hollow-based covering-pieces E, and the hollow-topped main boards C, substantially as and for the purposes herein set forth.

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

CORNELIUS T. SMITH.

Witnesses:

W. C. DEY,

C. C. LIVINGS.