## A. W. ZIMMERMAN.

BOARD ROOFING.

No. 185,617.

Patented Dec. 19, 1876.

Fig.1.

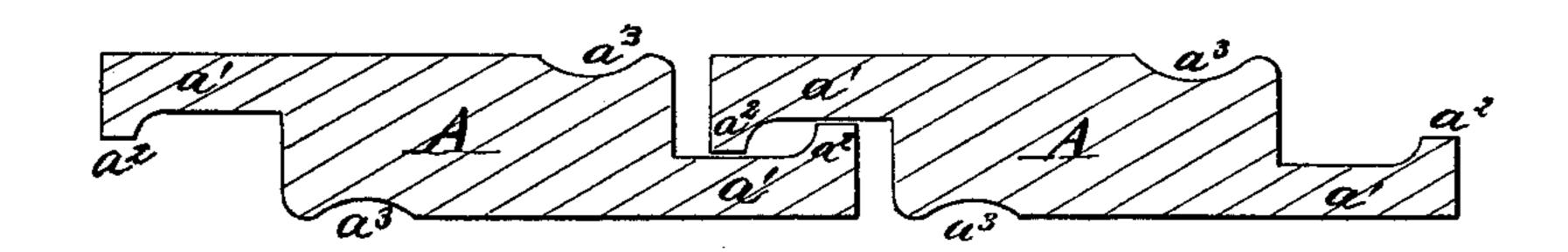
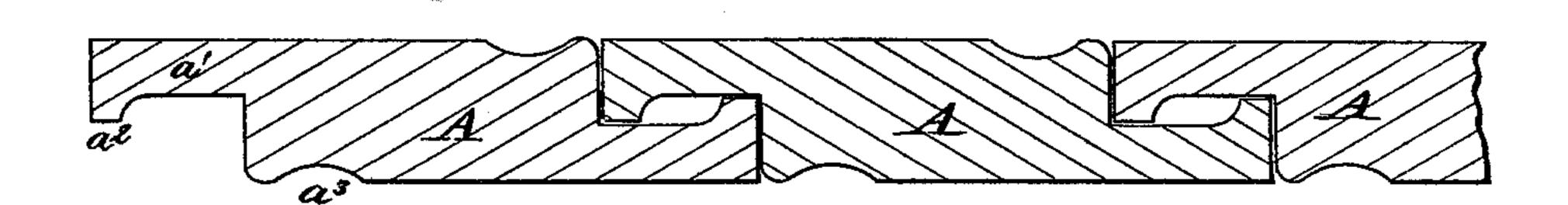


Fig. 2



WITNESSES: M. Almavid

Jinventor: Jinserman Musica

ATTORNEYS.

## UNITED STATES PATENT OFFICE.

ARNOLD W. ZIMMERMAN, OF DENISON, TEXAS.

## IMPROVEMENT IN BOARD ROOFING.

Specification forming part of Letters Patent No. 185,617, dated December 19, 1876; application filed June 12, 1876.

To all whom it may concern:

Be it known that I, ARNOLD W. ZIMMER-MAN, of Denison, in the county of Grayson, and in the State of Texas, have invented a new and Improved Board Roofing, of which the following is a specification:

Figure 1 is a sectional view of a portion of my improved roofing, showing the position of the boards when laid. Fig. 2 is the same section as Fig. 1, but showing the position of the boards when swollen.

The object of this invention is to furnish an improved board roofing for cars, porches, awnings, and other structures, which shall be so constructed that the boards may contract and expand with changes of temperature without opening the joints, and which will carry off the rain without allowing it to work in through the said joints.

The invention consists in a roofing formed of boards provided with wide rabbets, made with lips upon their outer edges and along the opposite sides of their opposite edges, as hereinafter fully described.

A are the boards, which I prefer to make from four to six inches in width, and from three-quarters of an inch to one and a quarter inch in thickness. Upon the upper side of one edge and the lower side of the other edge of each board A is formed a rabbet,  $a^1$ , about three quarters of an inch wide, and having a lip or flange,  $a^2$ , about one-eighth of an inch wide along its edge.

In laying the boards the lips and rabbets of |

the adjacent edges interlock with each other in such a way that there may be a space or channel of about three eighths of an inch between the edges of the boards and the shoulders of the rabbets, to form channels to carry off the water, and to allow the boards to shrink and swell without opening the joints. Upon the boards A, about one-eighth of an inch from the shoulder of the rabbet, is formed a groove,  $a^3$ , to serve as a channel to carry off the water, so that so much water will not flow into the rabbets  $a^1$ .

I am aware of the existence of a waterproof joint for roofing-boards, formed by rabbeting and overlapping the ends of the boards, said overlapping ends being beveled, and the lower one provided with a channel to carry off the water which penetrates through the outer seam. The joint referred to is defective, for the boards cannot expand and contract properly, and even if a slight movement of the boards were possible the same would be raised by reason of the beveled ends or tongues.

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

The combination of the boards A, having straight end tongues  $a^1$ , with projecting lips  $a^2$ , as and for the purpose set forth.

ARNOLD W. ZIMMERMAN.

Witnesses:

J. M. Cook, M. F. Daniels.