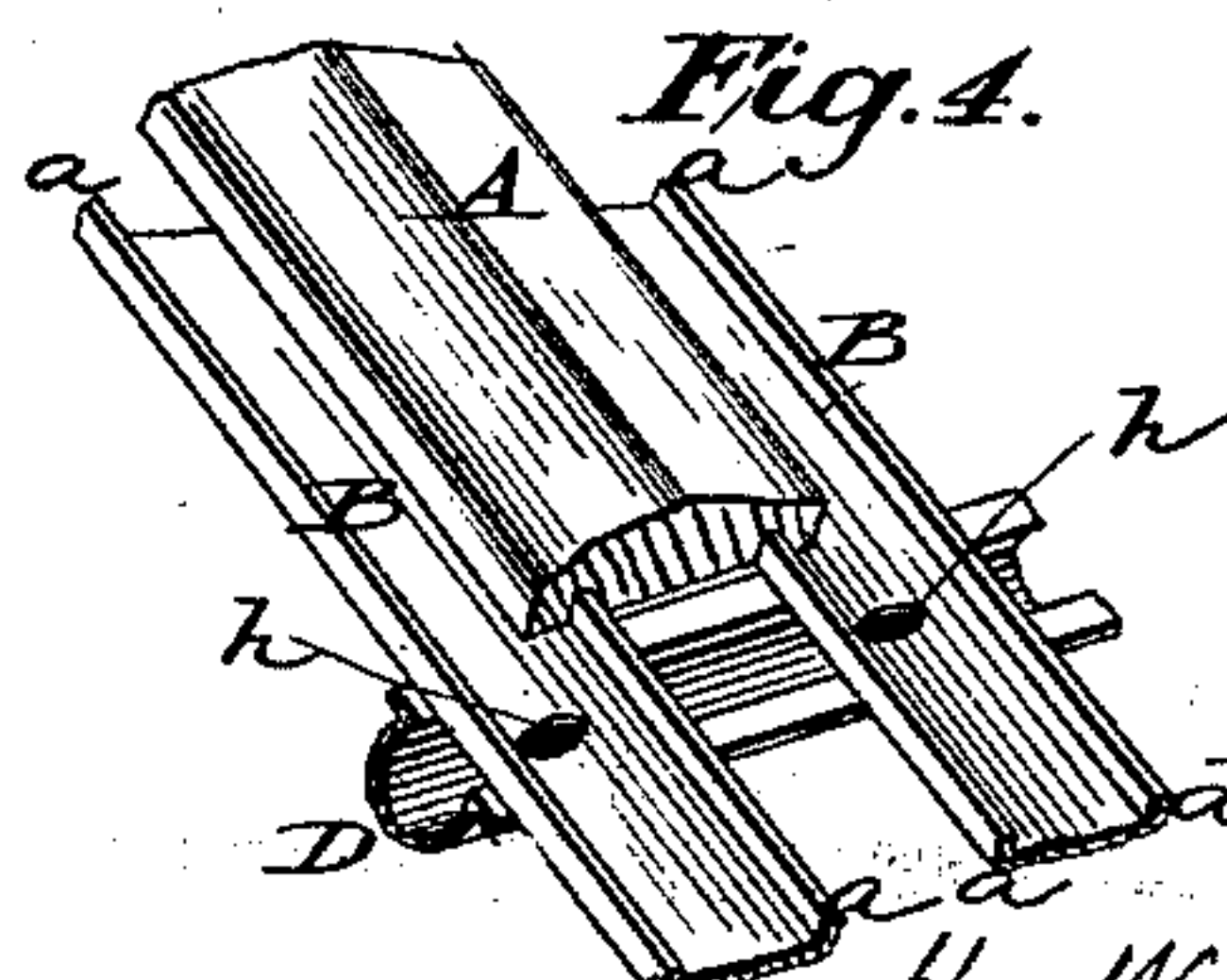
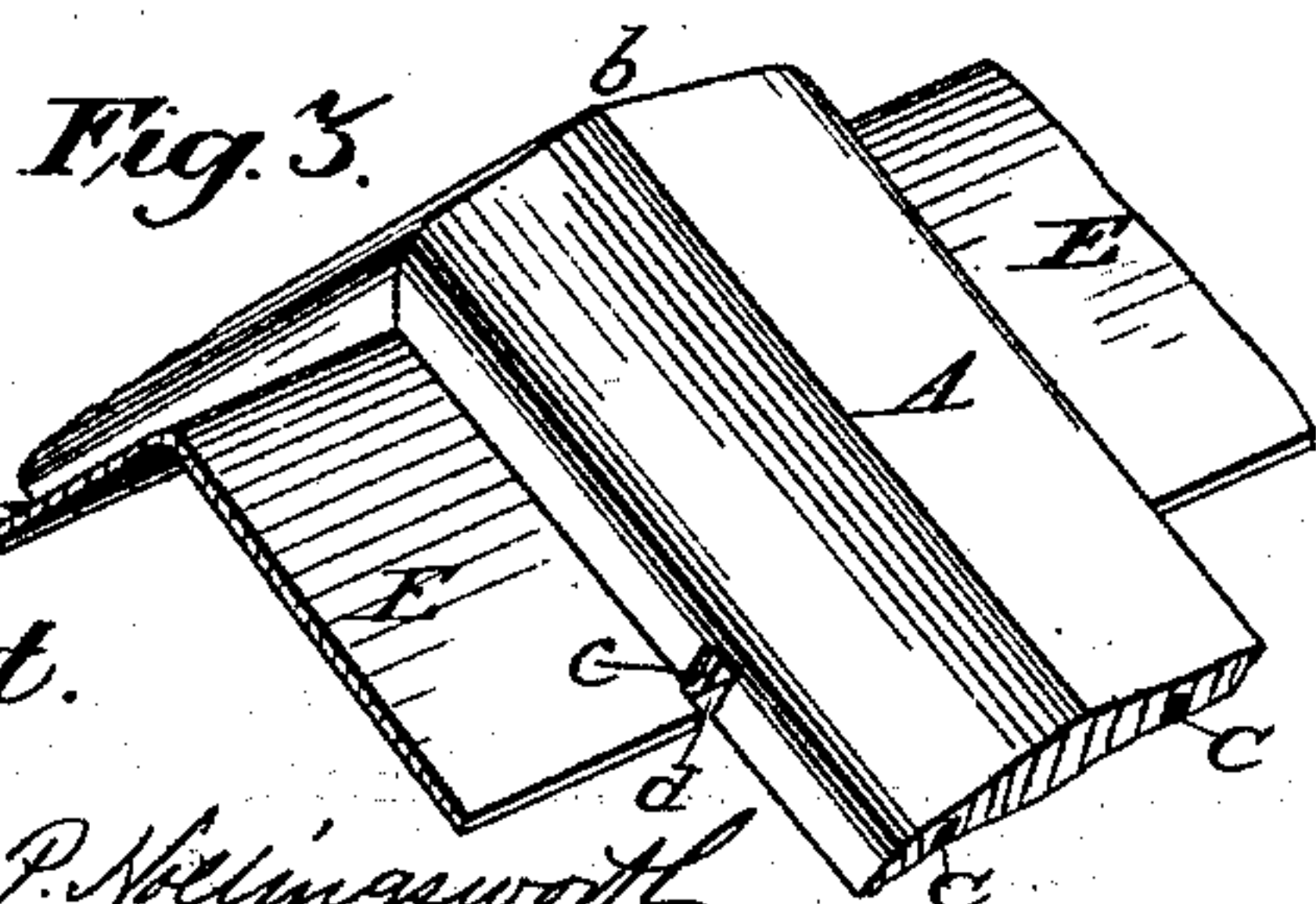
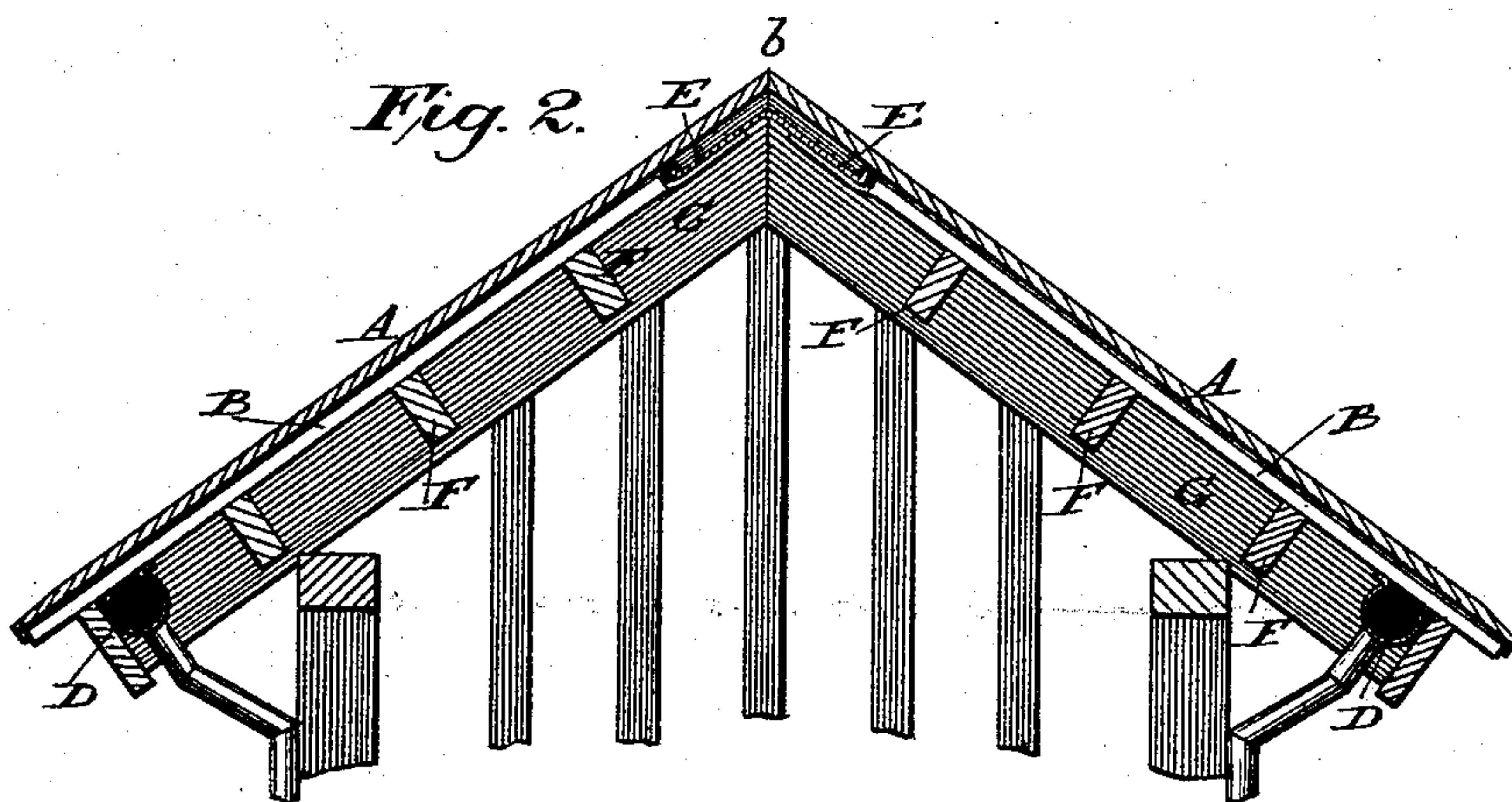
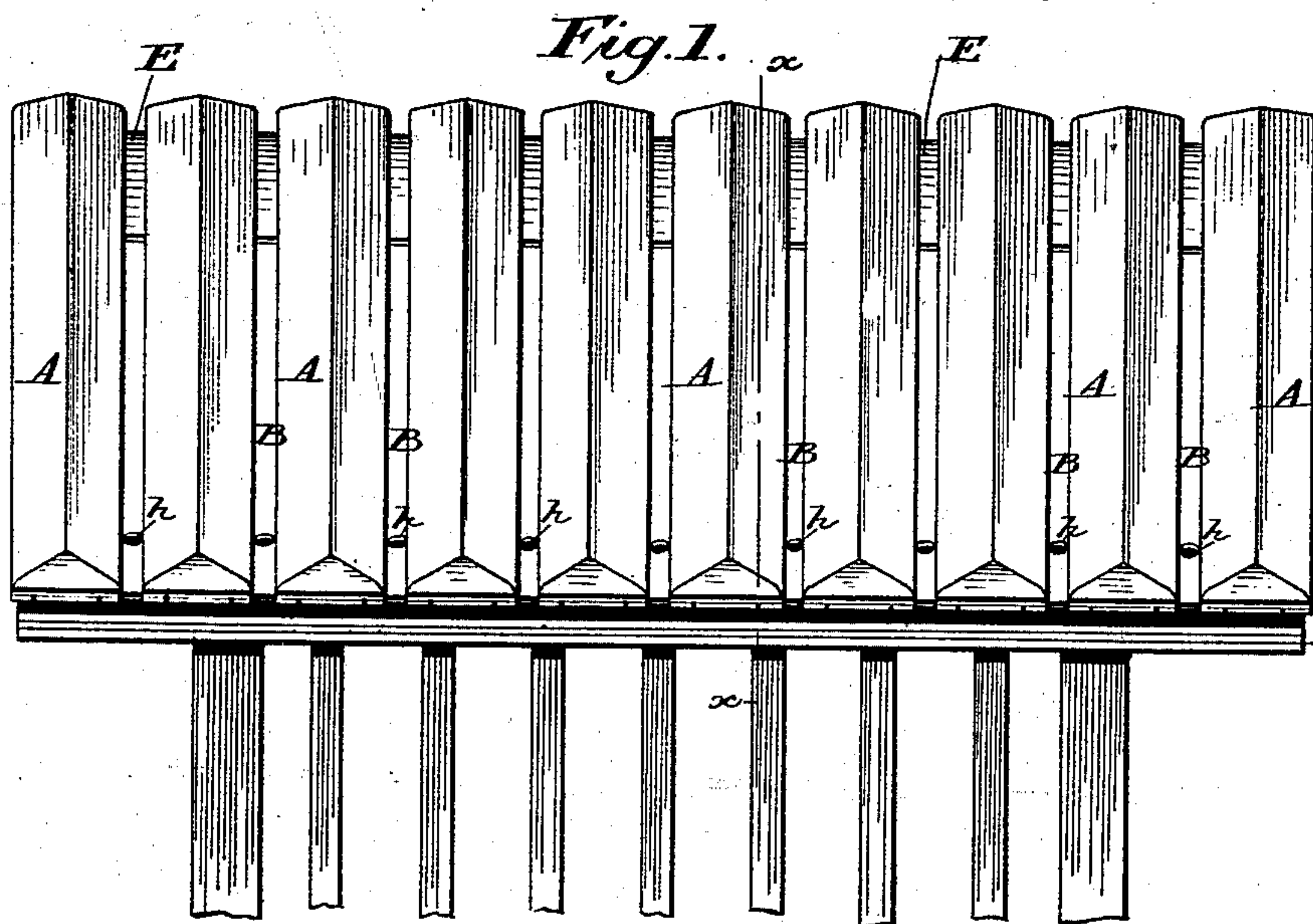


(No Model.)

H. W. HOEFT.  
Roofing.

No. 232,643.

Patented Sept. 28, 1880.



Attest.

*Sidney P. Mellingworth*  
*P.R. Stansbury.*

Inventor.

*H. W. Hoeft,*  
*By his Attorneys,*  
*Stansbury & Mann.*



# UNITED STATES PATENT OFFICE.

HERMANN W. HOEFT, OF LA CROSSE, WISCONSIN.

## ROOFING.

SPECIFICATION forming part of Letters Patent No. 232,643, dated September 28, 1880.

Application filed July 12, 1880. (No model.)

*To all whom it may concern :*

Be it known that I, HERMANN W. HOEFT, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Roofing; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of my improved roof.

Fig. 2 is a vertical section on line *x x* of Fig.

1. Fig. 3 is a detail view in perspective, showing the cap-plate covering the ridge of the roof in its relation to the planks. Fig. 4 is a detail perspective view, showing the planks in their relation to the tin strips and gutters.

The same part is marked by the same letter wherever it occurs in the drawings.

The object of my invention is to provide a simple, cheap, durable, and thoroughly waterproof roof adapted to the rapid discharge of water from its surface.

The nature of the invention consists in the combination, with the roof-timbers, of strips of heavy plank placed a short distance apart, beveled on top and longitudinally grooved underneath near their edges, and united in parallel rows by narrow strips of tin or other suitable metal, whose edges are turned up to enter the grooves in the planks before mentioned, the ridge of the roof being covered by an angle-strip or cap of metal whose edges are turned up and enter transverse grooves in the roof-planks, all as hereinafter more specifically set forth.

The tin strips constitute a part of the covering of the house, and they carry off all the water, or nearly all, owing to the beveled form of the planks. The water is more rapidly carried off than if it ran down the whole length of the planks to the eaves. The water runs on the wood but little more than half the width of each plank before being discharged onto the tin and carried to the gutter.

The wooden portion of the roof consists of pieces or lengths, *A*, of plank (two inch, one and one-half, or one and one-fourth inch plank) of such length as to reach from ridge to eaves, including such projection of eaves as

may be required or desired. These pieces are to be five and one-half to seven inches wide, beveled on the top, so as to form a ridge on each piece, and rounded at the edges, (see Figs. 3 and 4,) and provided with grooves *C C* on the under side to receive the edges of the tin strips *B*. These planks should be placed one-half to three-fourths of an inch apart. Under them, and occupying the spaces between them, are long strips of tin, *B*, extending the same length, from peak to eaves.

The tins *B* are turned up at both edges, *a a*, and these are inserted in the grooves *C C*, before mentioned. The surface of the tin is plain, except that where the gutters *D D* are under the projection of eaves there are holes *h h* to carry the water into the gutters.

The upper ends of the planks are mitered together at *b*, so as to obviate the necessity of a ridge-board over the wood; but there is a tin ridge or peak (or gable-cap) over the tin strips *B* and under the planks *A*.

The grooves *C* in which the tins are inserted are to be three-sixteenths to six-sixteenths of an inch deep and three-eighths of an inch from the longitudinal edges of the plank, according to the pitch of the roof, the creases to be more or less deep, a slight pitch requiring a deeper crease, so as to prevent accumulations of water and snow from setting back over the turned-up edge or crimp of the tin. This form of roof will require cross-rafters *F* as well as hip-rafters *G*. The tin peak-board *E* is also to be crimped and turned up, the turned-up edges *c* to be received in transverse grooves *d* in the plank, as clearly shown in Fig. 3. The gable-cap *E* is turned up and cut out alternately to fit first the wood strips *A* and then the tin strips *B*, so that there is no turn up or crimp in the tin spaces between the wood strips.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with the roof-frame, of beveled planks placed a short distance apart, grooved on the under edge and extending from peak to eaves, and united by tin strips having turned-up edges which enter the grooves in the planks, all as and for the purpose described.

2. In combination with the planks and strips constructed and united as described, the metallic cap-plate on the peak of the roof below the planks, having turned-up edges which en-

ter transverse grooves in the planks, all as and for the purpose specified.

3. In combination with the planks and tins arranged and combined as described, the gut-  
5 ters D D, located below the roof, as shown, to receive water through the holes *h h*, all as set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

H. W. HOEFT.

Witnesses:

JOHN J. COLE,  
C. O. SPRAGUE.