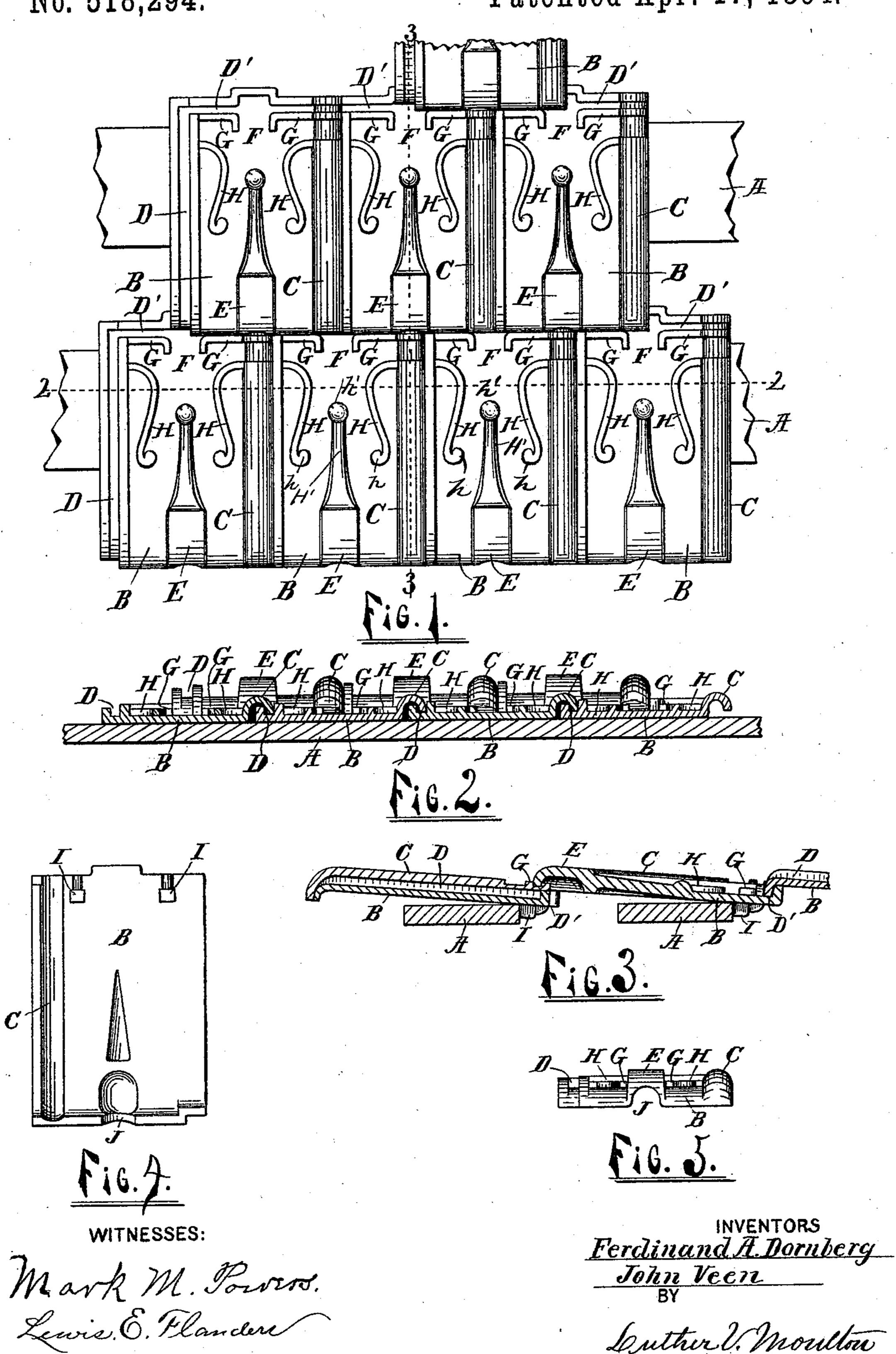
(No Model.)

J. VEEN & F. A. DORNBERG. ROOFING TILE.

No. 518,294.

Patented Apr. 17, 1894.



Louther V. Moulton ATTORNEY.

United States Patent Office.

JOHN VEEN AND FERDINAND A. DORNBERG, OF GRAND RAPIDS, MICHIGAN; _~ SAID DORNBERG ASSIGNOR TO JOE VANDER MOLEN, OF SAME PLACE.

ROOFING-TILE.

SPECIFICATION forming part of Letters Patent No. 518,294, dated April 17, 1894.

Application filed October 24, 1893. Serial No. 489,037. (No model.)

To all whom it may concern:

Be it known that we, JOHN VEEN, a subject of the Queen of the Netherlands, and FERDI-NAND A. DORNBERG, a citizen of the United 5 States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Roofing-Tiles; and we do hereby declare the following to be a full, clear, and exact description 10 of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in roofing tiles, and its object is to provide the 15 same with certain new and useful features, hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a number of tiles, embodying our invention, arranged in place to form a portion of a roof; Fig. 2 a transverse section of the same on the line 2-2 of Fig. 1; Fig. 3 a vertical section of the 25 same on the line 3-3 of Fig. 1; Fig. 4 a plan view of the under side of a single tile; and Fig. 5 a lower end elevation of the same.

Like letters refer to like parts in all of the figures.

A, A, represent any suitable strips secured in proper place to which the tiles are attached

to form the roof. B are the tiles which are rectangular plates in general outline, each having at one side a 35 groove D, and at the other side an upwardly projecting semi-cylindrical edge, which engages the said groove in the adjacent tile, to connect said tiles in series and form a suitable joint; each tile is also turned downward 40 at its lower end to engage a transverse groove, or chamber D' extending across the upper end of the tile below. Each tile is also provided at its lower end with an elevated middle portion E, and a concave notch J to en-45 gage the convex surface of the portion C of the next tile below. The lower side of the channel D', is formed by ribs G, G, which are disconnected near the middle of the tile

and turned downward leaving an opening F, 50 through which water may escape, said ribs G by projecting above the lower angles of the tile above prevent the wind from blowing snow, or water back beneath the same, and for that purpose also extend over and across

the convex surface of the part C. Curved 55 and downwardly inclined ribs H, H, having their innermost portions in the same vertical line as the outer edge of the raised portion, E, and a central wedge shaped rib, H', projecting upward into the space between said 60 ribs H, H are provided which divert and check the downward flow of the water and prevent the wind from blowing the latter backward up the inclined surface of the tile. To assist in this operation the lower ends of the ribs 65 H are turned inward, forming knobs h, and the upper end of the wedge H' is formed with an enlargement or head, h', which reduces the space, to accomplish the function stated without requiring an excess of material and with- 70 out preventing proper flow of the water. To attach and support said tile lugs I, I, are provided on their lower surfaces near their upper ends, which lugs engage the upper edge of the strips A, A, and thus retain the tile in 75 place upon said strips.

What we claim is—

1. A roofing tile, consisting of a substantially rectangular plate; having a semicylindrical side and a groove at its other side, a 80 downwardly turned lower end formed with a notch, a transverse rib near its upper end formed with a middle opening, inwardly and downwardly extending side ribs, a raised middle part extending into the space between 85 said ribs, and lugs on its under side, substantially as shown and described.

2. As an improved article of manufacture, a roofing tile consisting of a substantially rectangular plate, constructed with a groove at 90 one side, a semi cylindrical opposite side, a downwardly turned lower end formed with a notch, a transverse rib near its upper end formed with a middle opening, downwardly extending curved side ribs, a raised middle 95 part with its upper end wedge shaped and terminating in an enlargement situated between said side ribs, and lugs on its under side, all substantially as described and for the purposes set forth.

Intestimony whereof weaffixour signatures in presence of two witnesses.

> JOHN VEEN. FERDINAND A. DORNBERG.

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Witnesses: LUTHER V. MOULTON, LOIS MOULTON.