

(No Model.)

C. H. PENNYCOOK.

GLAZING BAR.

No. 275,261.

Patented Apr. 3, 1883.

FIG. 1.

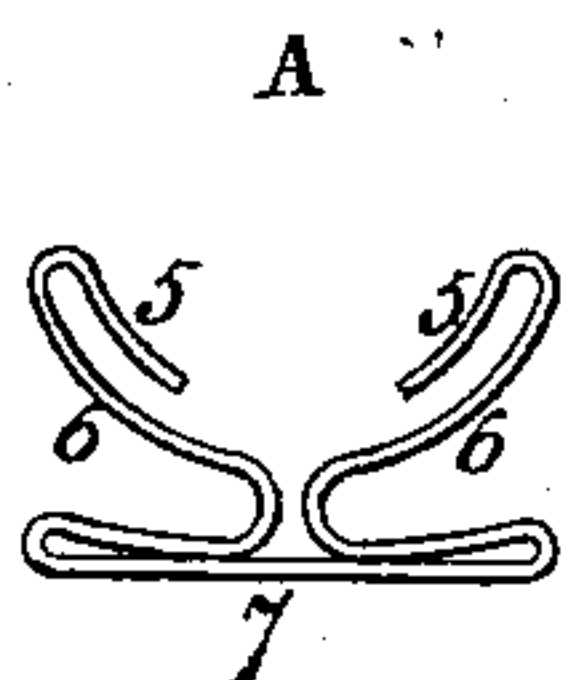


FIG. 2.

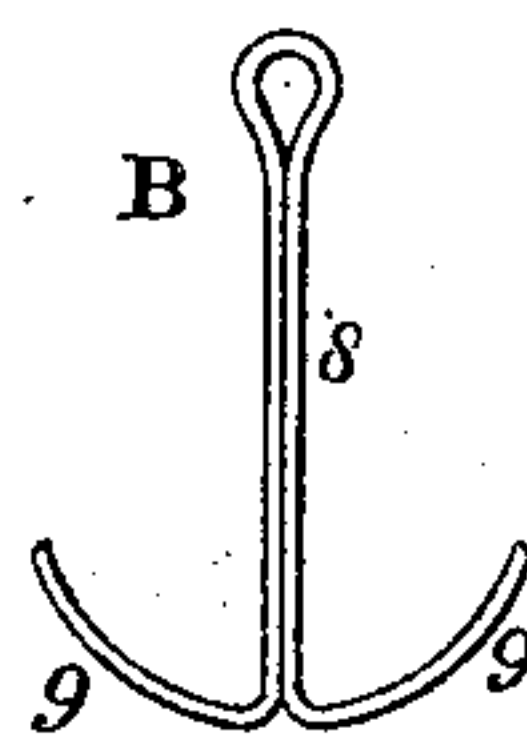


FIG. 3.

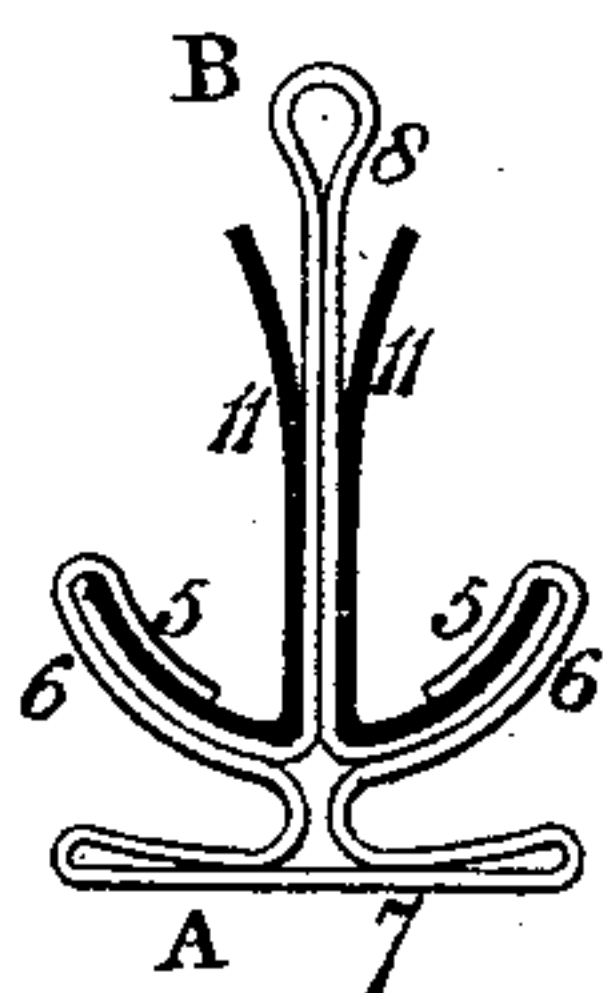
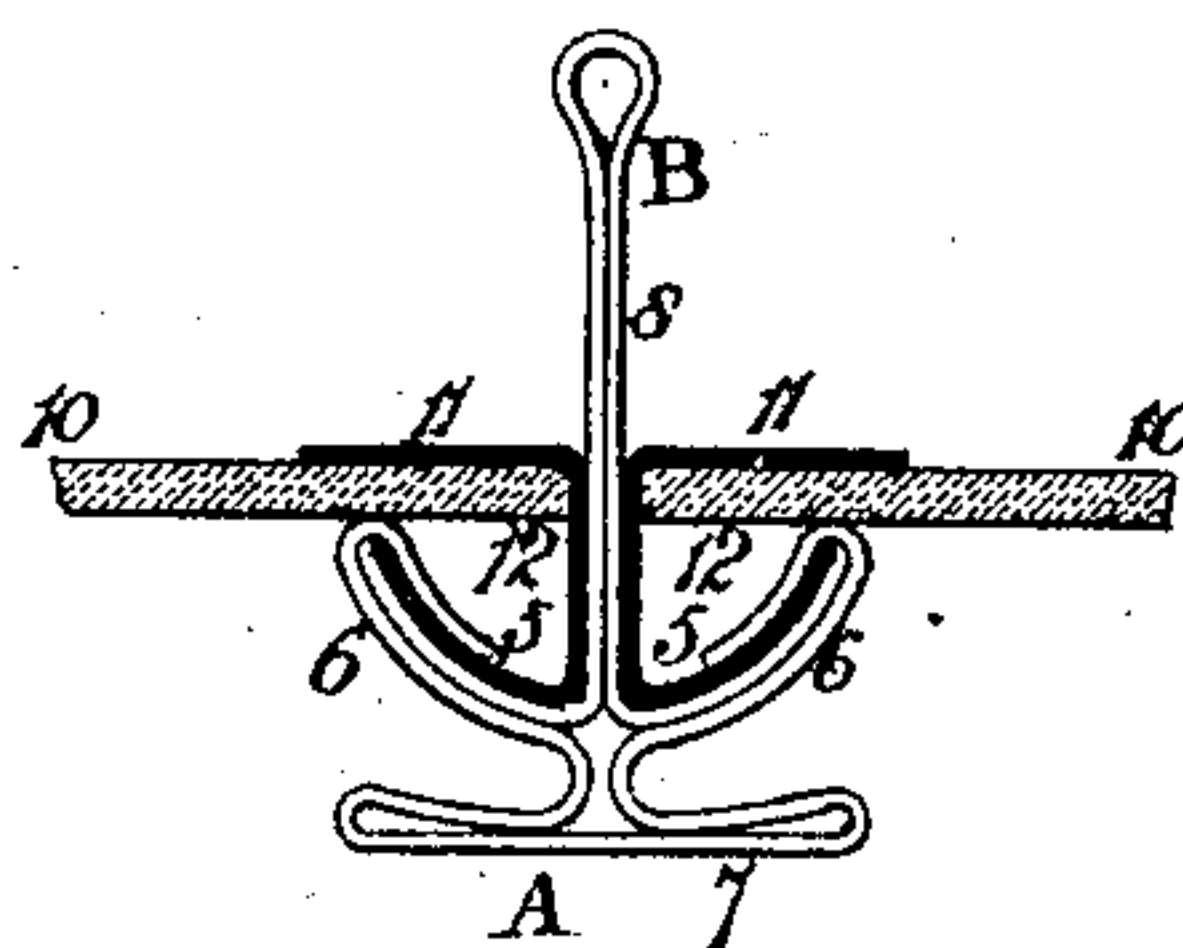


FIG. 4.



Witness:  
David Williams  
Harry Drury

Inventor  
Charles H. Pennycook  
By his Attorneys  
Howell and Jones

# UNITED STATES PATENT OFFICE.

CHARLES H. PENNYCOOK, OF GLASGOW, COUNTY OF LANARK, SCOTLAND.

## GLAZING-BAR.

SPECIFICATION forming part of Letters Patent No. 275,261, dated April 3, 1883.

Application filed June 15, 1882. (No model.) Patented in England May 14, 1879, No. 1,930.

*To all whom it may concern:*

Be it known that I, CHARLES HILL PENNYCOOK, a subject of the Queen of Great Britain, and residing at Glasgow, in the county of Lanark, Scotland, have invented an Improvement in Glazing-Bars, (for which I obtained British Letters Patent dated May 14, 1879, No. 1,930, and still in force,) of which the following is a specification.

My invention has for its objects to form an improved glazing-bar, or a bar for supporting or retaining plates or sheets of glass for roof-lights or other structures for admitting light, by bending or shaping and combining strips of sheet-zinc or other suitable metal; also, to replace the putty ordinarily employed for fixing glass by thin sheet-lead applied in a peculiar and advantageous manner; and, also, to combine the sheet-lead used as a substitute for putty with the glazing-bar, so that the lead may be held in a simple and secure manner, and the entire combination of glass, lead, and bar be thereby rendered less liable to derangement.

Figures 1 and 2 of the accompanying drawings are end elevations of two strips of zinc which are combined together to form the improved glazing-bar. Fig. 3 is an end elevation, showing the parts of the glazing-bar as combined with each other and with lead strips, the lead strips being shown as they are before the glass has been placed in position. Fig. 4 is a sectional end elevation representing the complete glazing-bar, with portions of two pieces or sheets of glass in position, and having the lead folded and closed down upon them.

The improved glazing-bars are designed more especially to be used for roof-lights, and to be placed parallel to rafters, their upper and lower ends being fixed to horizontal longitudinal frames or purlins. They may, however, be used in other situations or positions, and they may be supported by intermediate purlins when their length renders it necessary. The lower part, A, of the glazing-bar is made out of a parallel-sided strip of sheet-zinc of any suitable length by bending or shaping the same by rolling or drawing operations, or partly by rolling and partly by drawing operations, so as to have a cross-section or end elevation such as is shown in Fig. 1. The essential parts of this piece A are the turned-

over edges 5 and the curved parts 6. The bottom part, 7, is used partly for strength, when required, and partly for ornament, and its shape may be varied. The upper part, B, of the glazing-bar is made out of a strip of sheet-zinc similar to that used for the part A, and in a similar manner, but so that its cross-section or end elevation is of the anchor-like form shown in Fig. 2. The metal of the part A is folded together so as to form a double vertical middle part or main vertical web, 8, which may vary in vertical breadth in different cases, and the edges are turned outward and upward from the bottom of the web 8 to form the wings 9, these wings being shaped to fit inside of the curved parts 6 of the bottom piece, A.

In the drawings the glazing-bar is shown as made for receiving the edges of two adjacent pieces of glass, 10, one on each side of it; and a lead strip, 11, is provided for each piece of glass. The lead strips 11 are shown by thick black lines in Figs. 3 and 4. Each lead strip 11 is placed upon the inside of the wing 9 of the anchor or upper bar-piece, B, and so that part of its breadth at first lies against the side of the vertical web 8. The upper piece, B, with its lead strips, is combined with the lower piece, A, by making them slide one upon the other endwise, so that the wings 9, each with one edge of a lead strip, becomes inclosed between the curved part 6 and the infolded part 5; and after the parts are put together the bar may be passed through rollers to compress the parts 5 6 upon the parts 9 and the lower edges of the lead strips. The pieces of glass 10 are placed so as to rest upon the tops of the parts 5 6, and then the upper edges of the lead strips 11 are folded down as closely and tightly as possible upon the glass pieces, which completes the glazing operation. The lead strips 11 not only hold down the glass, but also prevent the passage of moisture from the outside to the inside. A kind of gutter, 12, is formed under the edge of each piece of glass, and as the glass is not in practice perfectly in contact with the top edges of the parts 5 6 throughout their entire length, moisture due to condensation on the under side of the glass finds its way into the gutters 12 and passes along them to other gutters, or to pipes or receptacles provided at their lower ends.

Instead of making the parts A B of the glaz-



ing-bar of sheet-zinc, they may be made of thin sheet-iron, steel, copper, or brass.

What I claim as my invention is—

1. The combination of sheets of glass with  
5 a glazing-bar consisting of two pieces, one with curved parts 6 and turned-over edges 5, on which the said sheets of glass rest, and the other piece in the form of an anchor, with wings 9 fitted into said parts 5 6, all substan-  
10 tially as described.

2. The combination of the portion A of a glazing-bar, having curved parts 6 and turned-over edges 5, with the portion B in the form

of an anchor, having wings 9 and strips 11, one edge of each strip being inclosed with one 15 of the said wings by a part, 6, and edge 5, and the other edge of the strip being bent down over the sheet of glass, substantially as set forth.

In testimony whereof I have signed my name 20 to this specification in the presence of two subscribing witnesses.

CHARLES HILL PENNYCOOK.

Witnesses:

EDMUND HUNT,  
DAVID FERGUSON.