

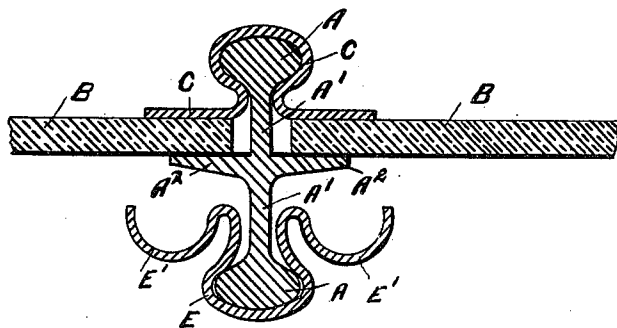
No. 639,964.

Patented Dec. 26, 1899.

A. S. DOUGLAS, JR.
ASTRAGAL FOR USE IN GLAZING.

(Application filed Mar. 25, 1899.)

(No Model.)



Witnesses:
Gadd-Davis
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UNITED STATES PATENT OFFICE.

ALEXANDER SHARP DOUGLAS, JR., OF GLASGOW, SCOTLAND.

ASTRALGAL FOR USE IN GLAZING.

SPECIFICATION forming part of Letters Patent No. 639,964, dated December 26, 1899.

Application filed March 25, 1899. Serial No. 710,456. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER SHARP DOUGLAS, JR., of 92 West Regent street, in the city of Glasgow, Scotland, have invented certain new and useful Improvements in Astragals for Use in Glazing, (which was patented in Great Britain on the 30th day of September, 1898, No. 20,637,) of which the following is a specification.

10 This invention has for its object to provide a light and strong astragal for use in glazing without putty and adapted to retain without special fastening a lead, zinc, or other sheet-metal cap for holding the glass sheets in place upon the astragal.

15 The invention is illustrated in the annexed drawing, showing a transverse vertical section of the improved astragal.

20 As shown in the drawing, the astragal-bar is rolled in iron or steel of approximately cruciform section and having its vertical webs A' formed each with a bead or bulbous edges A, so that in section the bar resembles a light railway-rail, but with transverse or horizontal webs or ribs A², forming a support on each side of the central web A'. The glass is rested on the horizontal webs A² of the bar, and it is held in place thereon by means of a cap C extending the full length of the astragal and which is preferably formed of sheet-zinc or like metal having a certain degree of resiliency, the cap being shaped to fit ap-

proximately the contour of the bulbous head and web and extend over the edges of the glass. The cap C is retained in place by the bulbous or beaded head A of the bar and requires no screws or other fastenings to hold it down. On the under side of the glass B an inverted cap E, of sheet metal, is sprung or fitted over the lower bend or bulb A of the astragal and has its edges curved outward to form gutters E' for the reception of drip due to condensation of moisture on the glazed structure.

45 Having now described the invention, what I claim, and desire to secure by Letters Patent, is—

An astragal for use in glazing, comprising a bar of rolled iron or steel having a central vertical rib A', horizontal webs or ribs A² for supporting the glass and bulbs A formed on the upper and lower ends of the vertical web or rib, a cap C bent around the upper bulb and bearing at its ends upon the glass, and an inverted cap E bent around the lower bulb and curved outward at its ends to form gutters E', substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALEXANDER SHARP DOUGLAS, JR.

Witnesses:

WALLACE FAIRWEATHER,
JNO. ARMSTRONG, JUNR.