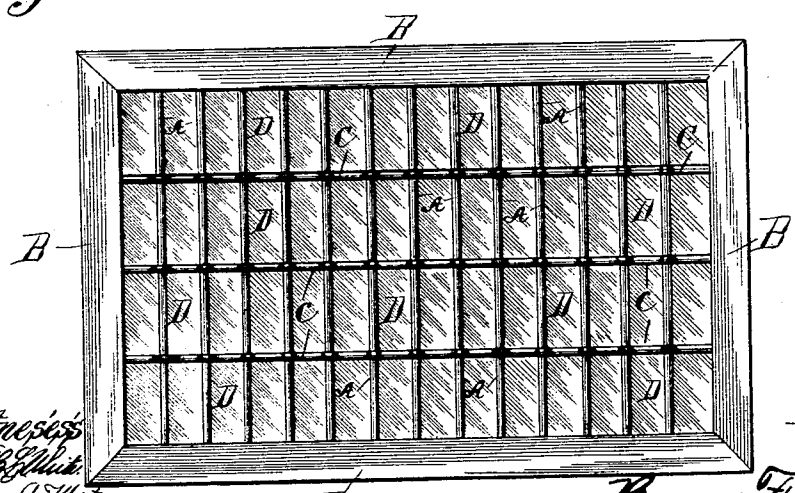
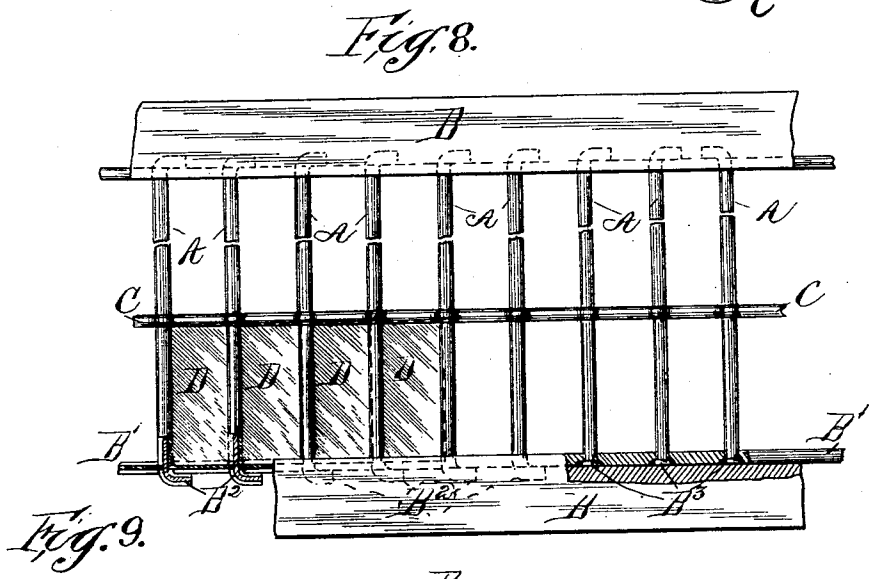
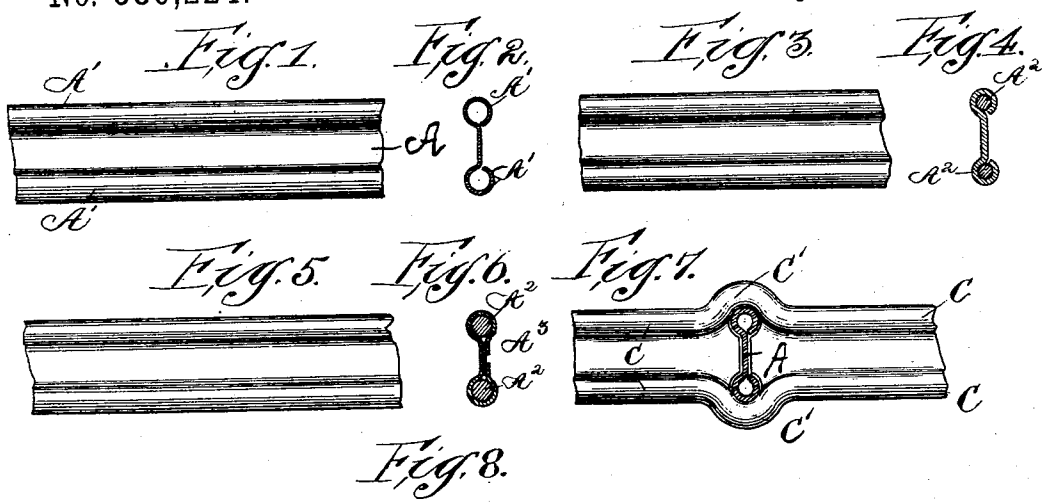


(No Model.)

H. F. BELCHER.
WINDOW.

No. 586,224.

Patented July 13, 1897.



Witnesses:
Ray A. White.

Inventor:

Henry F. Belcher,
by Francis W. Parker, Att'y

UNITED STATES PATENT OFFICE.

HENRY FOSTER BELCHER, OF NEW YORK, N. Y., ASSIGNOR TO THE LUXFER PRISM PATENTS COMPANY, OF CHICAGO, ILLINOIS.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 586,224, dated July 13, 1897.

Application filed March 10, 1897. Serial No. 626,741. (No model.)

To all whom it may concern:

Be it known that I, HENRY FOSTER BELCHER, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates to mounting or framing tile or sections of glass or the like, and has for its object to provide the new and improved method of mounting or framing such glass or tile illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of a portion of one of the strips interposed between the glass sections. Fig. 2 is a section through the same. Fig. 3 is a side view of a modified form of strip. Fig. 4 is a section through the same. Fig. 5 shows a still further modified form of strip. Fig. 6 is a section through the same. Fig. 7 is a view of a portion of one of the strips, showing the opening therethrough for the cross-strips. Fig. 8 shows a portion of a window or the like in process of construction. Fig. 9 shows a completed window formed by my process.

Like letters refer to like parts throughout the several figures.

In mounting window-glass, for example, in accordance with my method I provide a series of strips A, preferably made of metal, and attach them to the frame or other device in which the glass is to be mounted. These strips may be made in any desired manner, but I prefer to make what I call "double-beaded" strips. As shown in Figs. 1 and 2, for example, these strips are made of a thin piece of metal bent at its outer edges, so as to form the beads A' A'.

If it is desired to make the strips stronger than could be made by the construction shown in Figs. 1 and 2, I may use thicker metal, as shown in Figs. 3 and 4, and may bend the edges of the metal around the strengthening rods or wires A². If a still stronger construction is desired, I may bend the metal, as shown in Figs. 5 and 6, and may insert at the center of the strip a strengthening-piece A³, of steel or other suitable material. These strips A are then connected in any desired manner to the frame B.

As shown in Fig. 8, I place at two sides of the frame the strips B', having holes therethrough. The strips A are then passed through the holes in the strips B' and are bent, as shown at B², so as to be held in position or riveted at the ends, as shown at B³. It is of course evident that these strips may be connected to the frame in any manner desired, and I do not limit myself in any respect to the construction shown. Before permanently connecting the strips A with the frame I provide a series of cross-strips C, having holes therethrough, such holes being placed so that the strips C may be threaded, as it were, upon strips A. The desired number of these strips C are threaded upon the strips A before the said strips are permanently fastened to the frame. A series of glass sections D are then placed between the strips A, so as to form a layer or row across the frame, and one of the strips C is then moved down on top of the glass sections, so as to hold them in position. This process is continued until the entire window is completed. The parts are then firmly pressed together and held in a position so that the sections of glass will remain in place. We then have a completed product.

A further step may be taken, if desired, which consists in placing cement or other material between the beads of the strips, so as to make the product substantially air and water tight. The openings in the cross-strips C, through which pass the strips A, are preferably of such shape as to fit the outlines of the beaded strips. These holes may be formed in any desired manner, and when the strips C and A are of the same width the strips C will be forced or bulged outwardly, as shown at C' of Fig. 7.

I have described in detail the construction illustrated in the drawings in order to clearly set forth my process of mounting glass or tile, but it is of course evident that the construction of these several parts may be greatly varied without in any manner affecting the result, and I therefore do not wish to be limited in any manner by the construction shown.

I claim—

1. A complete window comprising a series of tile-sections with a series of double-beaded

metallic strips running in one direction, and a series of double-beaded metallic strips running at right angles to and passing through the first-mentioned strips, the sections of tile being placed within the squares formed by such strips.

2. A complete window comprising a series of strips, double beaded with strengthening parts within the strips, transverse similar strips running at right angles to and passing through said first-mentioned strips and tile-sections interposed between the squares thus formed between the several strips.

3. A complete window comprising a series of double-beaded strips running in one direction, thin strengthening-wires in the beads, a series of double-beaded strips running at

right angles to and passing through the first-mentioned strips and a series of tile-sections interposed in the spaces between the said strips.

4. A complete window comprising a series of double-beaded metallic strips, each perforated and the beads spread at such perforations so as to make the length of the perforations equal to the width of the body of the beaded strip, a series of double-beaded strips passing through such perforations and a series of tile-sections in the spaces between such strips.

HENRY FOSTER BELCHER.

Witnesses:

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