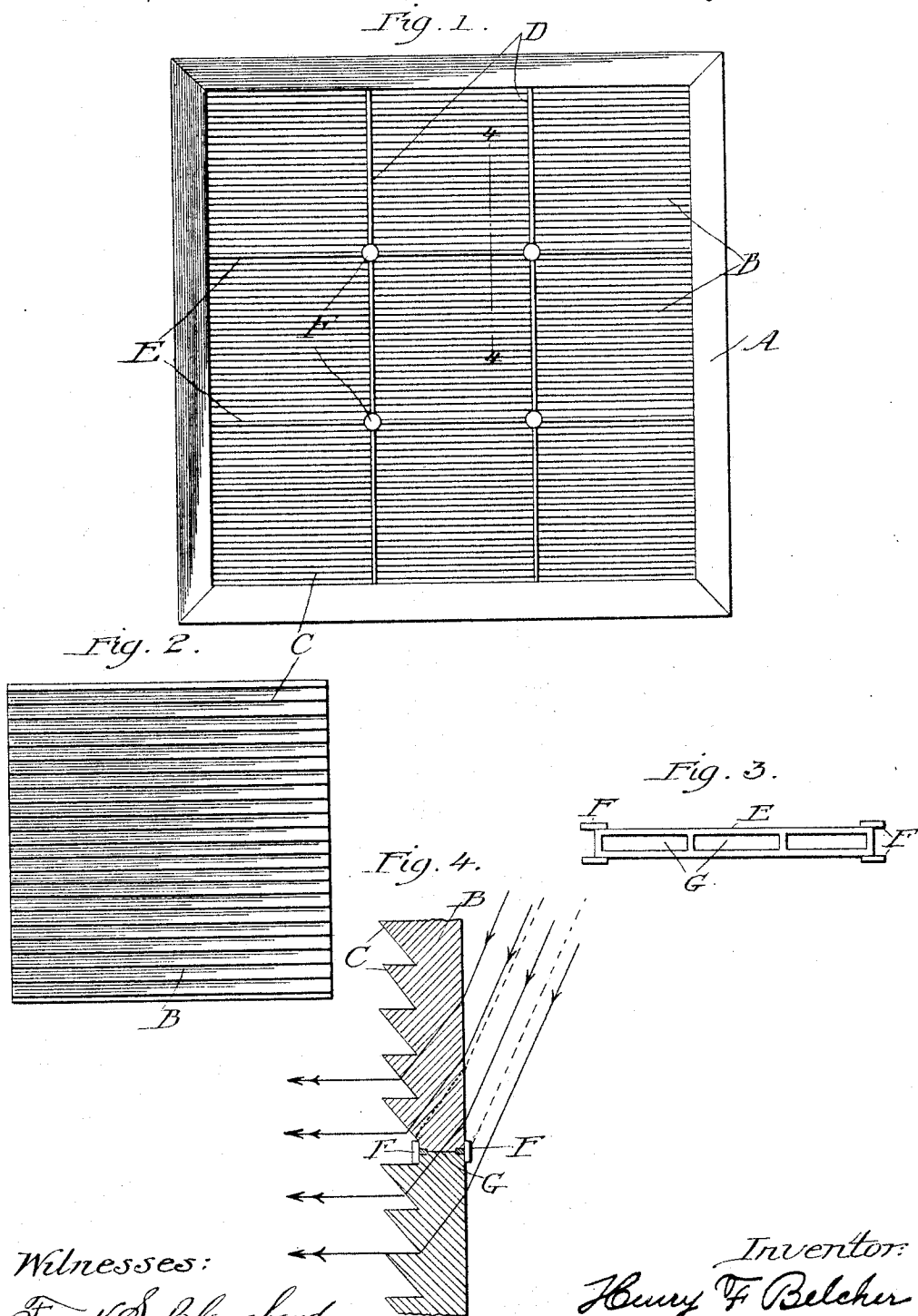


(No Model.)

H. F. BELCHER.
FRAMING PRISM LIGHTS.

No. 586,225.

Patented July 13, 1897.



Inventor:
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UNITED STATES PATENT OFFICE.

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FRAMING PRISM-LIGHTS.

SPECIFICATION forming part of Letters Patent No. 586,225, dated July 13, 1897.

Application filed April 19, 1897. Serial No. 632,700. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. BELCHER, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Framing Prism-Lights; of which the following is a specification.

My invention relates to devices for framing or mounting tile or similar sections into a plate, and is particularly applicable to the mounting of what is known as "prism-lights" to form prism-plates.

It is illustrated in the accompanying drawings, wherein—

15 Figure 1 is an elevation of a prism-plate. Fig. 2 is an elevation of a prism-light. Fig. 3 is an elevation of one of the ties; and Fig. 4 is a section through the plate on the line 4 4 of Fig. 1, with parts broken away.

20 Like parts are indicated by the same letter in all the figures.

A is the surrounding sash or frame, which contains the prism-lights, and B B represent the prism-lights, having each thereon the 25 prisms C C. D are the warps, which run continuously from one side of the frame to the other. E E are the ties or other connecting-pieces; F, the keys, which overhang the corners of the prism-lights. It will be evident 30 that these several details need not all be used or united in any given device; but this is a particular case to which my invention is applicable.

Fig. 4 illustrates the manner in which such 35 prism-plate is used, the light descending upon the plate as indicated by the single arrow and passing thence as indicated by the two arrows. Now the net or grid, which is made up of the warps and ties or, indeed, of any desired or 40 necessary parts, is essential as a support to the prism-lights. I prefer to incorporate the prism-lights in such grid or net and then to immerse the whole in an electrolytic bath to electroglaze the lights into the frame; but of 45 course my improvement is applicable to other arrangements as well as this particular one.

Obviously any opaque cross-bars or ties which form a part of this frame, net, or grid will intercept a very considerable quantity of light—as, for example, all the light falling from a 50 given direction included between the dotted lines. Now by leaving the openings G in the cross-bar or warp it is plain that the greater portion of such light will pass through the bar and be refracted, thus adding to the volume 55 of light transmitted by the prism-plate. These openings or spaces may be, if necessary, filled with some sort of transparent paste, though this is probably not essential, certainly not in many cases. The cross-bars may be of 60 any desired length; but I have shown them by what I have called "ties." I have shown but one arrangement of the plate in which the cutting out of the bar is of importance; but there are many others, and, indeed, almost 65 every instance where prism-lights are mounted into prism-plates it is a matter of importance to thus minimize the obstruction of the light offered by the opaque supporting-bars.

I claim—

1. A prism-plate comprising a series of 70 transparent sections with interposed supporting-bars, the bars whose broad sides lie in the path of the light being cut out or internally reduced.

2. A prism-plate comprising a series of 75 sections of transparent material, and a series of supporting-bars interposed between the edges of such sections, the cross-bars internally perforated.

3. A prism-plate comprising a series of 80 prism-sections placed close together edge to edge, an interposed frame consisting of flat bars between the several edges, the cross-bars cut out internally so as to admit of the passage of light therethrough, while at the same 85 time presenting an unbroken exterior surface.

HENRY F. BELCHER.

Witnesses:

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