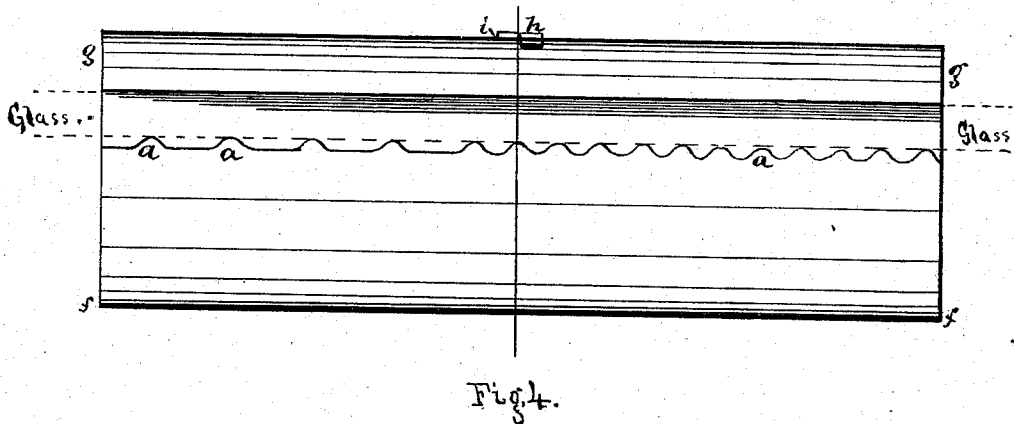
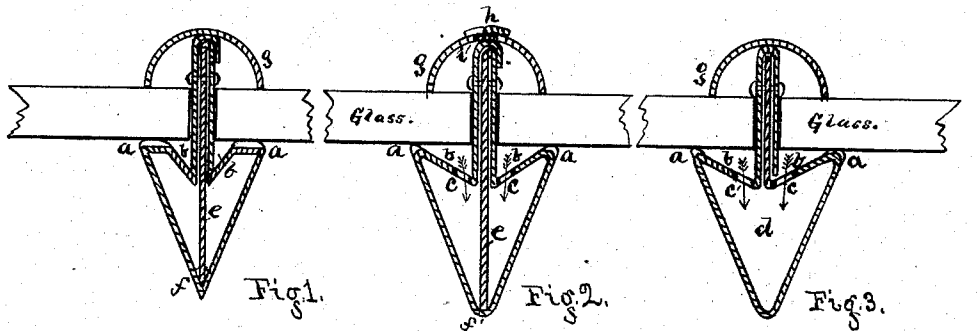


J. HARNEY.
Skylight-Bar.

No. 160,518.

Patented March 9, 1875.



Witnesses
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Geo. F. Clark.

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UNITED STATES PATENT OFFICE.

JAMES HARNEY, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN SETON, OF SAME PLACE.

IMPROVEMENT IN SKYLIGHT-BARS.

Specification forming part of Letters Patent No. **160,518**, dated March 9, 1875; application filed October 14, 1874.

CASE A.

To all whom it may concern:

Be it known that I, JAMES HARNEY, of the city of Brooklyn, county of Kings and State of New York, have invented certain new and useful Improvements in Skylight-Bars, of which the following is a specification:

My invention relates to that class of skylight-bars formed of sheet metal; and its object is to simplify construction, and obtain sufficient strength while lessening the obstruction to light.

The nature of my invention consists in forming the bar of folded sheet metal, so shaped sectionally that a gutter or gutters is obtained wholly within the spread of the ledges which support the glass, below the glass and within the body of the bar.

I am well aware that V-shaped bars have been made before for very many years, but having no gutters, the interior of the V-portion, which is hollow, performing no function.

I have, therefore, formed this plan of making the hollow of the bar useful. I corrugate the outer edges of my bar, and form grooves leading toward the center of the bar, the grooves or channels slanting so as to agree with the slope of the bar. I also form an inward depression of the upward surface of the ledges, so as to facilitate the inward flow of water toward the center of the bar, and next the vertical center of the bar I form a series of perforations or slots to allow water to pass downward to the interior of the bar.

Gutters to skylight-bars are found of considerable utility in collecting the water caused by leakage, as well as the drip from condensation.

I am also aware that gutters have been used before and now in use, formed at the bottom of the bar outside the same, and made by turning up the bottom edges of the metal; but such projections of metal cause considerable obstruction to light, and serve also to weaken the bar by giving an excessive weight of metal, while presenting, usually, an unsightly appearance when viewed from below; therefore, I have endeavored to obviate such faults of construction by forming my gutters entirely within the V-portion of the bar.

My bar possesses both ledges to support the glass, and gutters to collect the drip, leakage, &c.

My invention consists, to speak more definitely, in grooving the upper edges of the ledges, so as to permit condensed drip to run underneath the glass, and above the body of the bar. It also consists in the combination therewith, of a guttered depression in said upper surface of said ledges, such depression running lengthwise the bar, the corrugations or grooving running transversely; and it also consists in combination therewith, of a series of perforations, apertures, or slots, so as to connect the same with the interior or hollow of the body of the bar. It also consists in the combination of catches formed by clipping the upper edges of the bar metal with slots formed in the cap which covers the joints, so that the cap is held firmly in place.

Figure 1 represents a transverse section of my bar. Figs. 2 and 3 are also transverse sections, showing modifications of the same invention. Fig. 4 is a side elevation of my bar, each modification being the same when viewed similarly.

a represents the corrugated or grooved ledges. *b* represents the depressed or lengthwise grooves. *c* represents the apertures or perforations giving passage to the interior, which is marked *d*. The perforations may be omitted, and the depressions *b* answer for gutters, if desired. In that case the depressions *b* must be made deeper, as shown in Fig. 1. The gutters in that case are within the body of the bar, but not inclosed with cover. An inside central strengthening portion is shown at *e*, Figs. 1 and 2, and is formed of the same piece of metal as the bar, by bending downward one of the ends of the sheet. This is usually soldered at the bottom or lower edge of the bar at *f*, and in large skylights, where the bars have long span, it is useful as giving additional strength, it being entirely vertical without bends. It, also, when properly secured, keeps the top portion of ledges from straightening out, as might be the case if under excessive weight. The advantages arising from my construction of bars are, first, a

saving of metal, as less is required than in any other bar having ledges and gutters; second, the gutters being entirely out of the way and entirely within the bar, offer less obstruction to light than those formed outside the bar; third, a better appearance is obtained underneath, the bars having a more finished look than if a crack were visible lengthwise the bar. In other bars having gutters, an extra bend or piece is required to cover the bottom of the bar, and give the requisite finish. This piece of metal is dispensed with in my form of bar, its expense saved, labor in making saved, while the bar is provided with gutters as useful, convenient, and perfect in operation as those of any other bar whatsoever. *g* represents the usual cap to cover the joint above the glass. *h* represents the catch formed by clipping the upper edge of the bar metal, so that by engaging with a suitable-sized slot in the cap through the same, and being flattened down, hold the cap firmly to the bar.

There are usually two of the catches at one point, one being bent opposite to the other. They prevent the cap getting loosened, and the joints uncovered. The catches are marked *h*, and the slots *i*.

What I claim as new and desire to secure is—

1. The grooves *a*, arranged so as to permit water to flow, as described, and for the purpose set forth.

2. The lengthwise groove, gutter, or depression *b*, in combination with the grooves *a*, and with the perforations *c*, as described and set forth.

3. In a skylight-bar formed of sheet metal, the gutters or gutter *d*, provided with suitable inlet-apertures *e*, substantially as and for the purpose set forth.

JAMES HARNEY.

In presence of—

JOHN SETON,

RICHARD H. REILLE.