

No. 865,961.

PATENTED SEPT. 10, 1907.

A. W. ZILLY.
VENTILATED RIDGE BAR.
APPLICATION FILED DEC. 26, 1906.

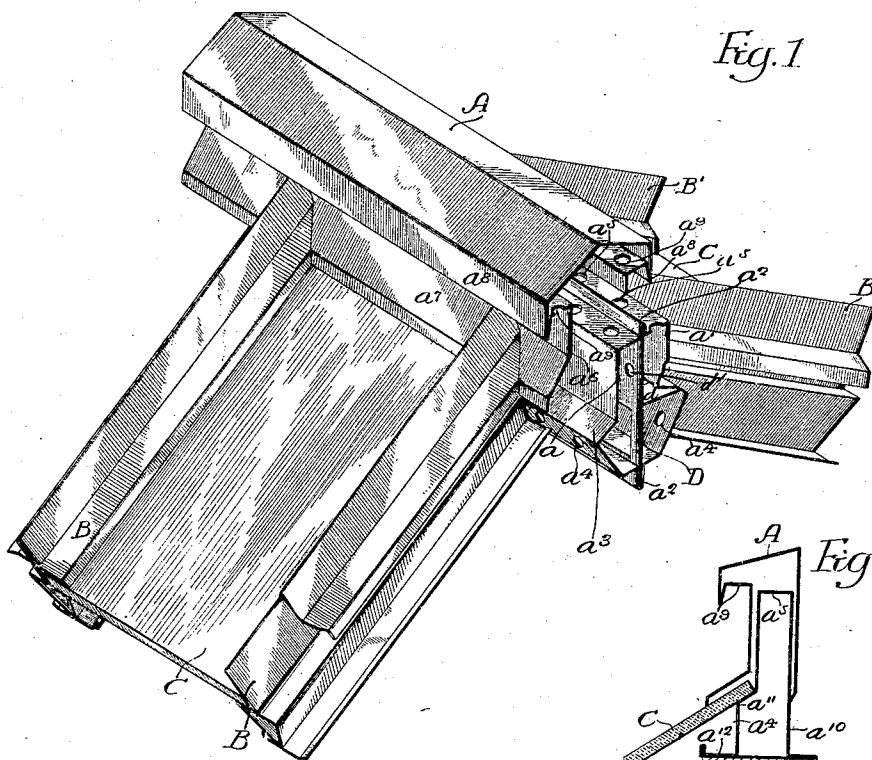


Fig. 1

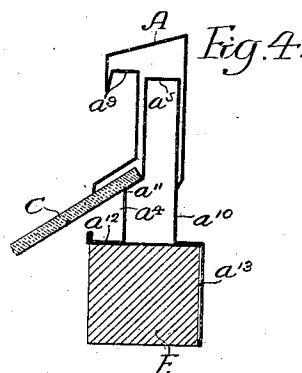


Fig. 4.

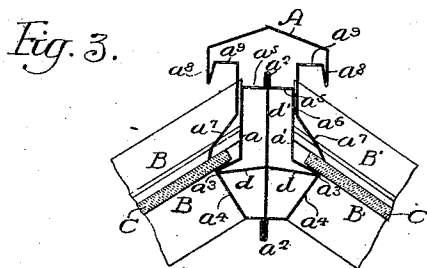


Fig. 3.

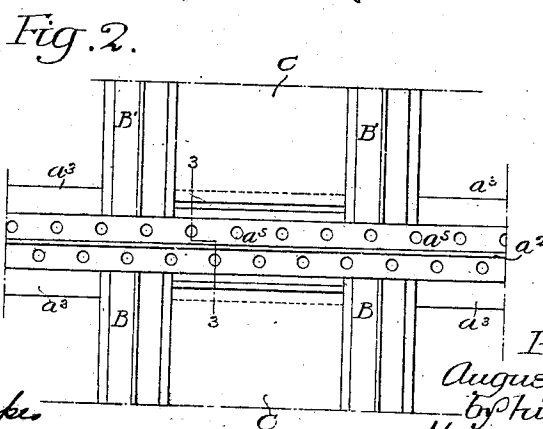


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

AUGUST W. ZILLY, OF CAMDEN, NEW JERSEY.

VENTILATED RIDGE-BAR

No. 865,961.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed December 26, 1906. Serial No. 349,545.

To all whom it may concern:

Be it known that I, AUGUST W. ZILLY, a citizen of the United States, and a resident of Camden, Camden county, New Jersey, have invented certain Improvements in Ventilated Ridge-Bars, of which the following is a specification.

One object of my invention is to provide a structure for uniting the tops of rafters of a hot house or other building construction requiring a skylight, through which air may pass out from the interior of the building; it being particularly desirable that the arrangement of parts shall be such as to prevent the possibility of water, snow, etc., being forced into the building through the ventilating openings. I further desire to provide a ventilated ridge bar of such construction that it shall be light, easily constructed with a minimum of labor, and relatively inexpensive as to its cost. These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawing, in which:—

Figure 1, is a perspective view of a portion of a skylight, showing in a series of sections the detail construction of my invention; Fig. 2, is a plan, on a reduced scale, of a portion of a skylight to which my invention has been applied; Fig. 3, is a vertical section on the line 3—3, Fig. 2, further illustrating the construction of my improved ridge bar, and Fig. 4, is a vertical section of one form of ridge bar constructed according to my invention and particularly adapted for use with what is known as a single pitch skylight.

Referring to Figs. 1 to 3 of the above drawing, B and B' represent two series of upwardly inclined rafters, united and held together by a horizontally extending ridge bar A; both rafters and ridge bar being preferably constructed of sheet metal such as galvanized iron, tin or copper. The main portion of the ridge bar will be seen to consist of a horizontally extending hollow structure formed of two similar sections a and a' united at the top and bottom as indicated at a^2 in any desired manner. Each of these sections is provided with a shoulder a^3 projecting from its side and designed for the support of the sheets of glass C mounted between the rafters. There is, moreover, in the lower side portion of each of the shoulders a^3 a series of openings a^4 , of any desired form, which permit of the passage of air from the interior of the building into the hollow ridge bar; there being also at the top of each section a series of openings a^5 through which air is free to escape from the interior thereof.

In order to prevent the entrance of rain, snow, etc., the main structure of the ridge bar is provided with a cap or cover A' extending longitudinally over it and provided with depending side portions a^6 , which closely embrace the upper side portions of the ridge bar sections. These depending portions are preferably cut away so as to permit the cover to fit down over the raf-

ters and their lower portions are inclined outwardly, as indicated at a^7 , so as to rest upon, and preferably tightly engage, the surface of the glass sheets C. The cover or cap A' is, moreover, extended outwardly at both sides of its upper portion and downwardly flanged as indicated at a^8 ; there being between said flanges and the depending portions a^6 a substantially horizontal surface in which are formed a series of holes a^9 so that when the various parts are assembled, as illustrated in the figures, air from the interior of the building to which the device is applied is free to pass through the holes a^4 into the interior of the ridge bar, and through the holes a^5 into the cap or cover, escaping from this through the holes a^9 . Should it be found that the downward pressure of the rafters upon the hollow ridge bar tends to collapse this, I may, if desired, provide a brace piece or longitudinally extending strut D within it; this preferably consisting of a vertical sheet of metal having its top and bottom edges respectively held between the folds of metal forming the connecting means for the two sections a and a' of the ridge bar. The lower portion of this brace piece or strut is formed with a series of cuts extending vertically upward from its lower edge and certain of the sections or tongues d so formed are bent to one or the other side of the plane of said brace piece; being of such a length as to enter and engage the angles of the shoulders a^3 , thereby rendering stiff and rigid the ridge bar structure.

It will be noted that sufficient material is left in the lower portion of the brace piece after the parts d have been bent out to withstand any possible downward strains, and, if desired, I may, in addition to the openings in the lower portion of said brace piece formed by the bending out of the sections d , provide other openings d' . It will be understood that the cap or cover portion A' may be held in place by any of the means commonly known in this art.

In the case of what is known as a single pitch skylight, it may be advisable to employ but one ridge bar section and in such case the construction would preferably be that illustrated in Fig. 4. The cover piece A' would be similar in form to half of the cover piece A', being provided with openings a^9 , as before, although in such a case its side most distant from said openings would be extended downwardly along the vertical side of the main portion of the ridge bar structure a^{10} . As before, this would be provided with a shoulder a^{11} for the reception of glass sheets C, although, in this instance, the holes a^4 would be formed in a substantially vertical surface and the metal of the ridge bar would preferably be extended to form a gutter a^{12} . The rear portion of the ridge bar section would be extended downwardly, as indicated at a^{13} , so as to provide means for attachment, if desired, to a wooden or metal beam E. As before, the air would pass out from the interior of the building through the openings a^4 , a^5 and a^9 .

I claim:

1. A hollow ridge bar having inlets and outlets for air, a piece of material extending longitudinally through said bar, with lateral projections extending alternately on opposite sides of the bar so as to permit of the passage of air from the inlets to the outlets of said bar, substantially as described.
2. A hollow ridge bar, having a piece of material extending longitudinally through it and provided with lateral integral extensions, for bracing the sides thereof, substantially as described.
3. A hollow ridge bar made in two sections joined at the top and bottom, and provided with inlets and outlets for air, with a sheet of material extending longitudinally through the bar and provided with portions projecting on both sides of its plane into engagement with the sides of said bar for bracing the same, said projections having open spaces between them to permit of the passage of air through the bar, substantially as described.
4. The combination of a hollow ridge bar, a series of rafters in engagement with the same and means consisting of sections of sheet material extending between opposite sides of the bar for bracing the interior thereof against the pressure exerted by the rafters, said ridge bar having inlet and outlet openings for air and openings between the sheet metal bracing sections, substantially as described.
5. The combination of a hollow structure consisting of

two substantially symmetrical sections, a strip of sheet material extending vertically between said sections, integral pieces cut from said strip and bent out to engage the walls of said sections, a series of rafters in engagement with each section, there being openings from the interior of said hollow structure to the building to which it is applied, with a cover for the hollow structure supported above the same so as to form a space, said structure and cover being constructed to permit air to pass from said space to the interior of the structure and also to the outside, substantially as described.

6. The combination of a hollow structure including two symmetrical sections, a bracing piece of sheet material extending through the same and cut to form tongues bent out into engagement with the walls of said sections thereby forming openings in the bracing structure, a cover piece provided with overhung portions and fitted tightly to the structure so as to provide a space above the same, there being openings in said overhung portions communicating with said space, and openings into the top and bottom of the hollow structure, substantially as described.

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

AUGUST W. ZILLY.

Witnesses:

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