July 28, 1925. 1,547,843

J. F. STUCKERT

ADJUSTABLE SKYLIGHT STRUCTURE

Filed Oct. 28, 1924

Fig. 1.

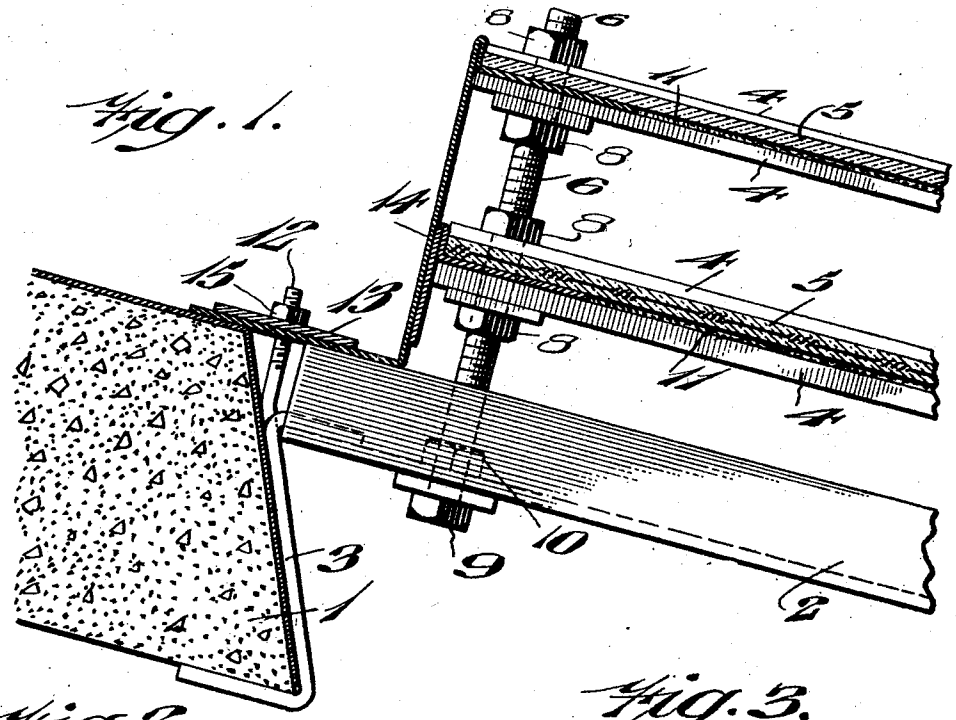


Fig. 2.

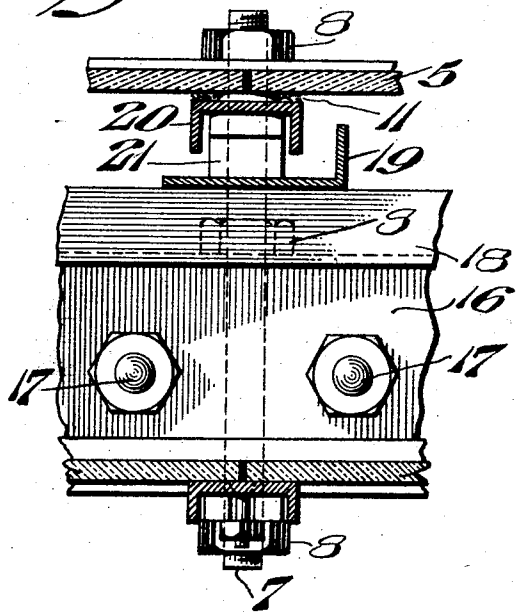
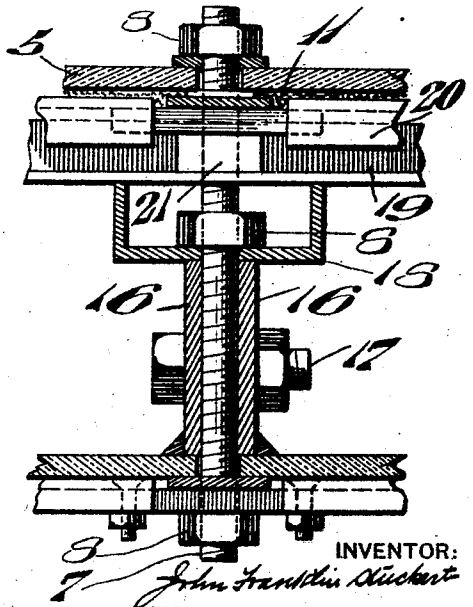


Fig. 3.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE SKYLIGHT STRUCTURE.

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To all whom it may concern:

Be it known that I, JOHN FRANKLIN STUCKERT, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Adjustable Skylight Structure, of which the following is a specification.

This invention, generally stated, relates to a building construction and more particularly the roof thereof in which a skylight may be employed.

In work of this kind, as at present practiced, no adequate provision is made, from an engineer's viewpoint, for compensating for inequalities or distortion of the roof parts upon which a skylight or other covering is to be positioned. As a result, roof parts frequently must be built up or a proper level secured by employing wedges or the like which in addition to being unsatisfactory from an engineering standpoint, consumes valuable time and is generally unsatisfactory since seepage or leaks are invited. The leading object of the present invention is to overcome these disadvantageous features and provide an arrangement, combination and connection of parts whereby a mechanically efficient and ready adjustment of skylight or other covering parts with respect to a building may be effected to ensure water-tight joints. A further object of the present invention resides in the provision of adjustably positioned, spaced skylight or other parts to ensure air spaces therebetween for insulation purposes, which spaces may, if desired, be filled with suitable insulation material.

Other objects reside in the provision of general details of construction for attaining the results sought by said leading object. Other and further objects not at this time appearing will be hereinafter more particularly referred to.

The invention consists of the novel construction hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part thereof, and in which:

Fig. 1, is a fragmentary view in longitudinal section of a skylight structure embodying the invention.

Fig. 2, is a similar view of a slightly different form, and

Fig. 3, is a cross-section on Fig. 2.

For the purpose of illustrating my invention I have shown in the accompanying drawings two forms thereof which are at present preferred by me, since the same have been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

Referring now to the drawings in detail and with more especial relation to Fig. 1, the reference numeral 1 designates curbing upon a roof or side or other part of a structure to which a skylight is to be attached. For illustrative purposes but one end of the curbing has been shown and while shown as of concrete obviously other material may be employed. Spanning the curb parts 1 is a gutter 2 which may be a channel beam or other suitable member. The gutter 2 is shown secured to the curb 1, by means of a metal angle strap 3, the ends of which are reversely bent so that one end thereof is arranged within the gutter 2 and the opposite end of which is arranged beneath the curb 1. It will be understood that a duplicate construction is present at each curb end. When the strap 3 is secured to place (in a manner to be presently described), the gutter is anchored to the curbing. Arranged above and spaced from the gutter 2 and from each other are the skylight or other covering supports shown as being bars 4 upon which is positioned compo-board, asbestos sheets, a sheet of glass or the like 5, the same being arranged in parallelism. These bars 4 at each end, including the sheet of glass or other covering material and the gutter 2 are apertured in register for the passage therethrough of bolts 6, or rods 7 (see Fig. 3) screw threaded at each end. Nuts 8 upon said bolts 6 clamps the plate of glass 5 between the broad faces of the bars 4. The head 9 of bolt 6 together with lock nut 10 supports the bolt with respect to beam 2. The covering, as glass 5, may be secured between the bars 4—4 by means of putty 11. The space between the beam 2 and between the spaced coverings may be left, as shown in the drawings, to provide insulating air

spaces or one or both may be filled with suitable insulating material. The strap 3 has connected thereto a screw-threaded rod 12 which passes through a plate 13 and the finishing metal 14 which when a nut 15 is threaded to rod 12 effectively clamps together with respect to curb 1, the beam 2 and the metal 14.

In positioning the plates of glass 5 in a skylight structure as above described any inequalities or distortion of the curbing, gutter or supporting members 4 may be compensated for by adjusting the various nuts upon the bolts or rods to obtain a desired position of the skylight proper with respect to the other parts thereof. The present invention is an improvement upon my U. S. Patent #316,413 dated April 21, 1885.

Referring now to Figs. 2 and 3 a slightly modified form is shown although the principle of adjustment and double insulating spaces are the same. The present structure is designed to support heavy coverings 5 of glass, compo-board, asbestos sheets or other covering material. The rods 7 or bolts if the latter are used have clamped upon opposite sides plates 16 bolted together at 17. A channel beam 18 is supported upon said plates 16 and the beam supports a metal member 19. Between member 19 and another channel beam 20, upon which is arranged the covering 5, a thimble 21 is arranged. Thus a very strong and rigid support for the covering 5 is supplied. Adjustment of nuts 8 provides for any inequalities present in the structure as a whole.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

What I claim as new and desire to secure by Letters Patent, is:

1. In a skylight structure a curbing, a gutter supported thereon, a plurality of glass-supporting means arranged in superimposed, spaced relation above said gutter, a bolt at each end of said gutter provided with means for sustaining said glass-supporting means, nuts and lock nuts for said bolts to secure adjustment of said glass-supporting means toward or away from said gutter, vertical plates and a horizontal channel beam arranged between said spaced means adjacent said bolts to reinforce said spaced parts.

2. In a skylight structure a curbing, a gutter supported thereon, a plurality of glass-supporting means arranged in superimposed, spaced relation above said gutter, a bolt at each end of said gutter provided with means for sustaining said glass-supporting means, nuts and lock nuts for said bolts to secure adjustment of said glass-supporting means toward or away from said gutter, and rigid means arranged between said spaced means and adjacent said bolts to reinforce said spaced parts.

3. In a skylight structure a curbing, a gutter supported thereon, a plurality of glass-supporting means arranged in superimposed, spaced relation above said gutter, a bolt at each end of said gutter provided with means for sustaining said glass-supporting means, nuts and lock nuts for said bolts to secure adjustment of said glass-supporting means toward or away from said gutter, vertical plates, a horizontal channel beam arranged between said spaced means adjacent said bolts to reinforce said spaced parts, and bolts for securing said plates together.

In testimony whereof, I have hereunto signed my name.

JOHN FRANKLIN STUCKERT.