

(No Model.)

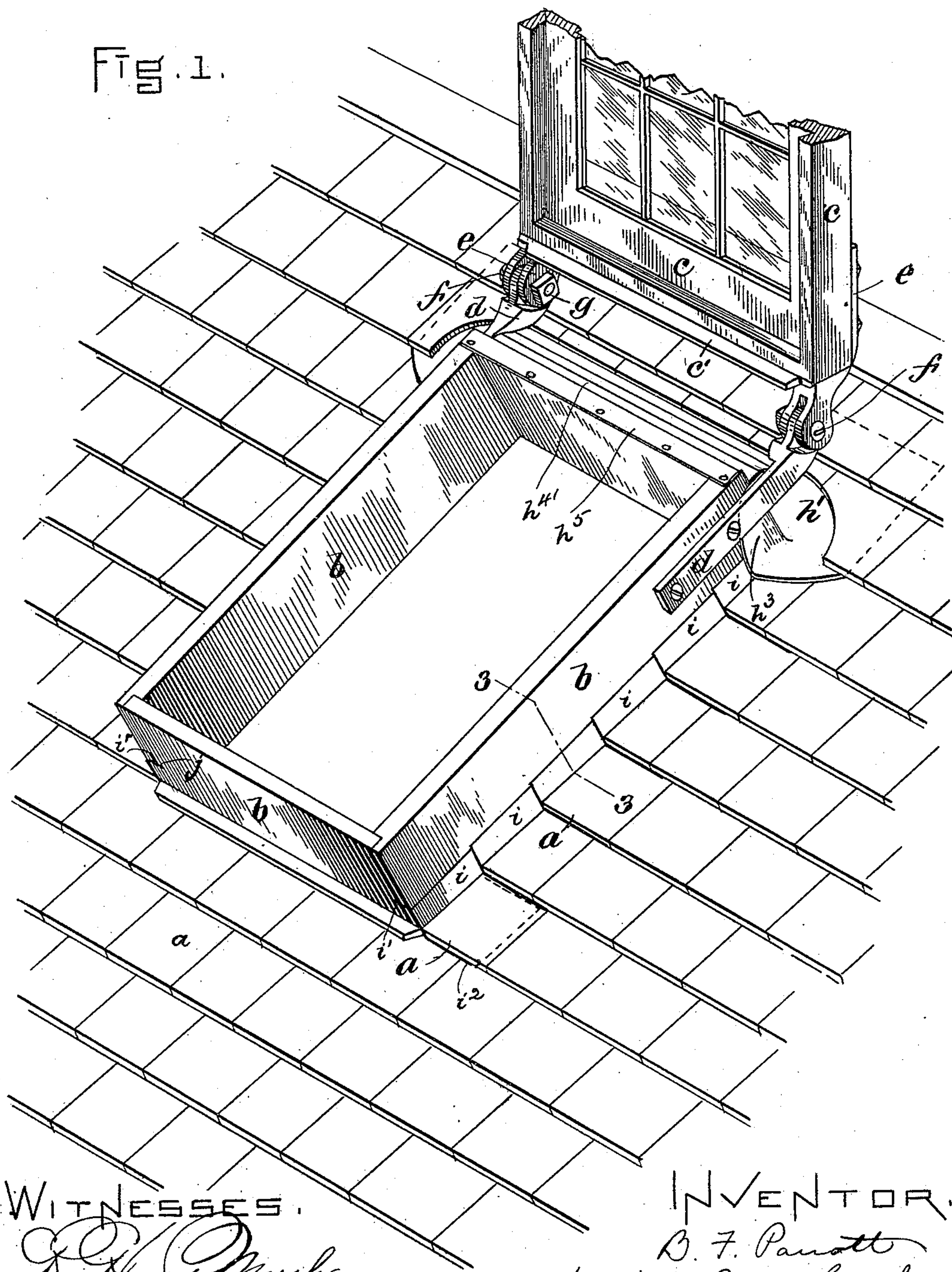
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B. F. PARROTT.  
SKYLIGHT.

No. 470,896.

Patented Mar. 15, 1892.

Fig. 1.



WITNESSES.

*G. Henry Marsh.*  
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INVENTOR.

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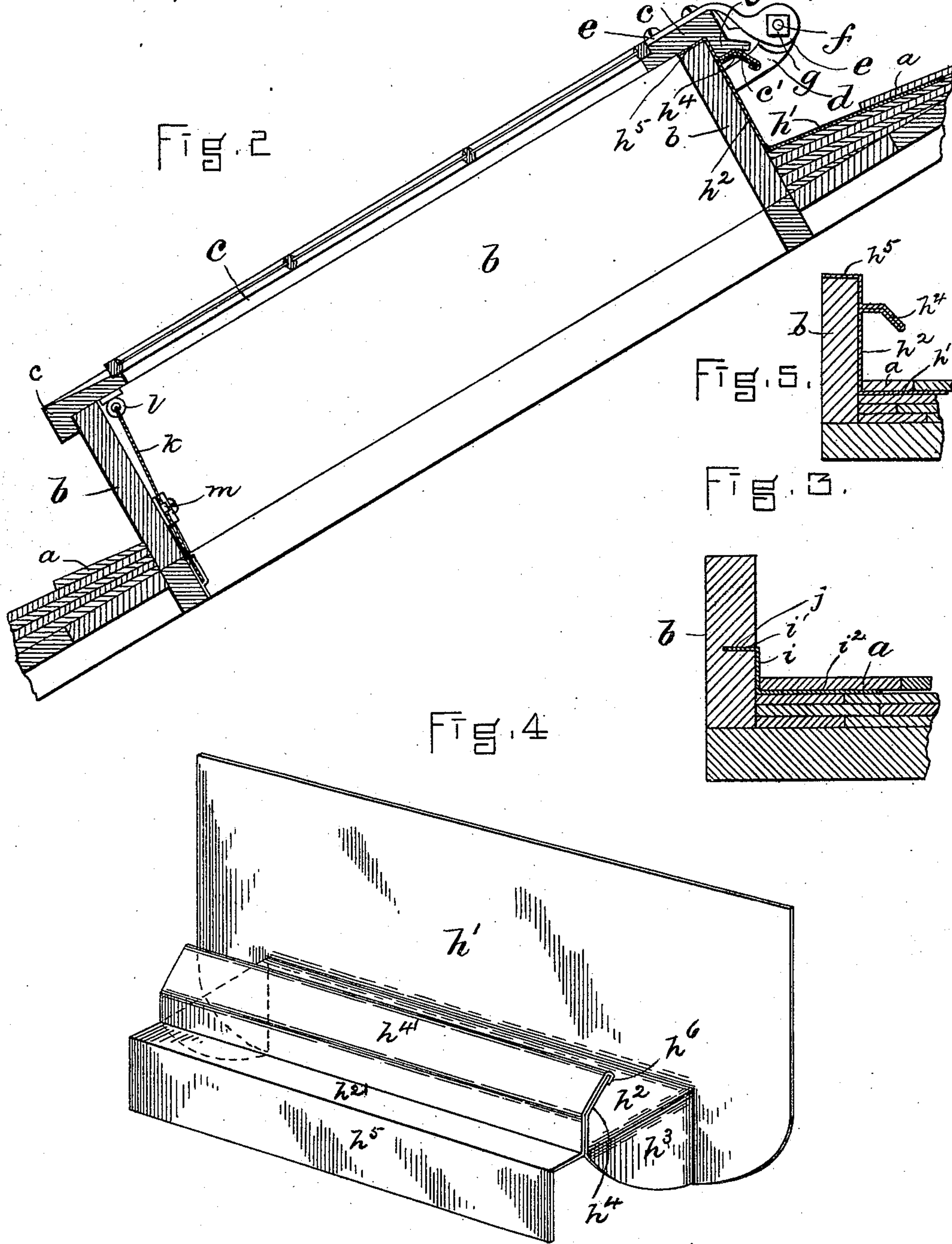
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# UNITED STATES PATENT OFFICE.

BENJAMIN F. PARROTT, OF LYNN, MASSACHUSETTS.

## SKYLIGHT.

SPECIFICATION forming part of Letters Patent No. 470,896, dated March 15, 1892.

Application filed April 15, 1891. Serial No. 388,981. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. PARROTT, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and  
5 useful Improvements in Skylights, of which the following is a specification.

This invention relates to skylights; and it has for its object to provide an improved skylight-frame specially adapted to prevent leakage of water through the roof around the same,  
10 and also adapted to open readily and to permit of the ready removal of its swinging section.

The invention consists in the improvements  
15 which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of a skylight provided with  
20 my improvements, showing the swinging section swung open. Fig. 2 represents a longitudinal section of the same when shut. Fig. 3 represents a section on line 3 3 of Fig. 1. Fig. 4 represents a perspective view of my  
25 improved shield or water-shed for the upper end of a skylight. Fig. 5 represents a section of one of the side pieces of the frame provided with a shield.

The same letters of reference indicate the  
30 same parts in all the figures.

In the drawings, *a* represents the roof in which my improved skylight may be set.

*b b* represent the members of the fixed skylight-frame, affixed to the roof in any suitable  
35 manner and standing out therefrom, as is usual in frames of this class.

*c c* represent the members of the swinging frame, the same being hinged to the fixed frame at its upper end and fitting closely over  
40 the fixed frame when shut. The swinging frame is preferably larger than the fixed frame, so that when shut it projects beyond the fixed frame, its projecting parts being provided with downwardly-projecting flanges,  
45 which fit close over the outside of the fixed frame and prevent the ingress of water between the edges of the two frames.

The members *c* of the swinging frame are recessed on their inner upper edges to receive  
50 a sheet of glass. The lower member *c* of said frame is cut away or beveled from the edge

or wall of said recess to the lower edge of the frame, so that water running down the glass will drop onto said cut-away portion and will run down the same, and so off onto the shingles of the roof, thus preventing leakage of  
55 water at the lower edge of the glass into the apartment below.

I provide the upper end member *c* of the swinging frame with a curved or beveled  
60 flange *c'*, which projects down over the upper end member of the fixed frame when shut, causing all water to drop clear of the openings between the two frames.

Of the hinges which connect the swinging  
65 frame to the fixed frame of the skylight, *d d* represent the lower members, which are affixed to the fixed frame, and *e e* represent the upper members, which are affixed to the swinging frame. The members *d* and *e* are con-  
70 nected at their meeting ends by a bolt *f*, having a nut *g*, the said nuts being preferably placed on the inner sides of the hinges. This arrangement enables the said hinges to be readily disconnected, so that the swinging  
75 frame may be removed from the skylight. To do this, the swinging frame is swung clear back, when it will be seen that the nuts *g* may be readily removed and the bolts *f* withdrawn from the ears of the hinge members and the  
80 latter separated from each other. This, it will be seen, is a much simpler operation than unfastening one of the members of each hinge from the frame to which it is screwed or otherwise fastened.

I prefer to affix the member *d* of each hinge to the outer side of the side members *b* of the fixed frame and the member *e* of each hinge to the upper side of the side members *c* of the swinging frame.  
85

In order to allow of the free closing of the swinging frame with its projecting flanges onto the fixed frame, the hinge members *d* and *e* are offset, as shown in the drawings, the form there shown being the one I have found  
90 best adapted for the purpose, although I do not limit myself to this exact shape of hinge.

The principal feature of my present invention is the device which I provide for preventing water running down the roof above the  
100 skylight from lodging at the upper end thereof and soaking through the joints of the fixed



frame and the roof. This shield or watershed consists of a plate of metal bent into the form shown in Fig. 4. Of this shield the part  $h'$  is substantially flat and is adapted to lie on the roof, a part of said portion  $h'$  extending up under the shingles of the roof immediately above the skylight-frame, and  $h^2$  is a portion which is bent at a right angle to said part  $h'$ , and which lies on the upper surface of the fixed frame of the skylight, and which has two end pieces  $h^3$  projecting slightly down over the sides of said frame. The portion  $h^2$  is bent up to form an upwardly-projecting flange or wall  $h^4$ , extending across the entire width of the fixed frame, the said wall being bent backwardly at its upper portion, as shown. Another plate of metal is provided adjoining that just described, said second plate having its main portion  $h^{21}$ , resting on the upper surface of the fixed frame, just in front of the wall  $h^4$  of the other plate. The plate  $h^{21}$  has one edge turned up to form a wall or flange  $h^{41}$  of the same form as the wall  $h^4$ , the two walls being close together. The wall  $h^{41}$  is turned over, as at  $h^6$ , to hold the upper edge of the wall  $h^4$ . The front portion of the plate  $h^{21}$  is turned over, forming the portion  $h^5$ , which rests on the top edge of the upper member of the affixed frame and may be affixed thereto in any suitable way.

I prefer to make the shield in the manner just described; but it will be obvious that although it is here shown as constructed in two parts it can be made in one piece, the double wall  $h^4$   $h^{41}$  being struck up from the flat surface  $h^2$   $h^{21}$ . I find, however, that it is less expensive to make it in two pieces, as described.

From the form and arrangement of the shield above described it will be seen that it is adapted to prevent water running down the shingles of the roof above the skylight from reaching the joint at the upper side thereof, thereby preventing leakage at this point.

To prevent the water streaming down along-side of the fixed frame from leaking in at the joints of the side pieces thereof with the roof, I provide side plates  $i$ , said plates  $i$  having one flange  $i'$  fitting in a groove  $j$ , cut in the outer side of the side pieces  $b$  of the fixed frame, the main or middle portion of said plates  $i$  lying alongside of the side pieces  $b$ , and another flange  $i^2$  extending at right angles to said middle portion and resting on the roof and extending under the shingles adjacent to the said fixed frame. The said side plates  $i$  may be made in lengths corresponding to the shingles of the roof and overlapped in a similar manner, as is shown in the drawings, or the whole side may be protected by a piece  $i$  running the whole length of the frame.

From the above it will be seen that water running over the ends of the shield at the top of the frame and down the sides thereof is prevented from leaking in at the side joints of said frame with the roof.

I have shown the usual supporting devices for the swinging frame of the skylight, the

same being a strip or stay  $k$ , attached to a screw-eye  $l$  on the swinging end of the swinging frame and having holes at different points adapted to be engaged with a stud  $m$  on the inside of the fixed frame, and thus hold the swinging frame in different positions. The above fastening device is well known, and any other suitable device may be used.

I intend to manufacture skylights provided with my said improvements and to put them on the market as a whole ready for placing in the roof of a house; but it will be obvious that my improvements are applicable to various forms of skylights other than those of the exact construction hereinbefore described.

I may extend the form of shield shown at the upper end of the frame in Fig. 2 all around the same, said shield taking the place of the side pieces  $i$ , which are in such instance dispensed with. In Fig. 5 I have shown a section of one of the side pieces  $b$  of the fixed frame, showing the form of shield shown at the upper end of the fixed frame extended around the sides thereof. The outstanding wall or flange of said shield is adapted to prevent any water from splashing up off the roof and finding an entrance between the fixed frame and the swinging frame or sash. It will also be seen that said flange or wall is adapted to prevent the entrance of water which might easily splash up or gather around the frame when snow is lying on the roof.

It will be observed that my improved form of hinge enables the lower members thereof to be affixed to the outer side of the fixed frame and the upper members to be affixed to the upper side of the sash, the meeting edges of the fixed frame and sash being thus uninterrupted by recesses cut for the reception of the hinges, so that said edges may much more easily be made to form a close joint between the sash and the fixed frame. Another advantage is that the sash may be easily detached from the swinging fixed frame by a person standing in the opening of the skylight, as I have already described.

It will be seen that the lipped flange  $c'$  on the upper member of the sash has an extended bearing on the shield or cover on the upper end of the fixed frame, bearing on two angles thereof, and that the lip or edge of said flange  $c'$  projects down sufficiently over the bent portion of the wall or flange of said shield to cause all water running off said flange  $c'$  to run off said wall onto the roof or onto the apron  $h'$  of said cover, and thereby prevents water from soaking in between the flange  $c'$  and the cover at the upper end of the fixed frame.

I claim—

1. The improved skylight comprising the fixed frame adapted to be attached to a roof, the swinging frame connected to the fixed frame at its upper end by offset hinges, one member of each hinge being attached to the outer side of one side member of the fixed frame, while the other member is attached to



the upper outer side of the swinging frame, the said swinging frame being adapted to have set therein a pane of glass, the lower member of said frame being beveled or cut away on its outer side, so that water running off the glass will run down off said frame without obstruction, the top shield consisting of the plate or plates having the portions  $h'$ ,  $h^2$ ,  $h^3$ ,  $h^4$ ,  $h^{21}$ ,  $h^{41}$ ,  $h^6$ , and  $h^5$ , hereinbefore described, and the side pieces or shields  $i$ , having the flanges  $i'$  and  $i^2$ , the former adapted to fit in a groove in the side pieces of the fixed frame and the latter to lie on the roof under the shingles adjoining the skylight, as set forth.

2. The improved water-shield for skylights, consisting of the metal plate or plates having the portion  $h'$  resting on the roof under the shingles, the portion resting on the top of the skylight-frame and having the end pieces extending partly down the sides of said frame, the wall bent up from the last-named portion substantially at right angles thereto, and the front flange adapted to rest on the front edge of the upper member of the said frame and to be attached thereto in any suitable manner, as set forth.

3. In a skylight, the improved side water-shields consisting of the pieces  $i$ , each having the flange  $i'$  fitting in a groove in the pieces

of the fixed skylight-frame, and the flange  $i^2$ , resting on the roof and lying under the shingles thereof adjoining the said frame, as set forth.

4. A skylight-frame having on its outer surface a sheet-metal cover comprising an outwardly-projecting flange or shield located between the upper and lower edges of the frame and above the adjoining surface of the roof and adapted to prevent water deflected from the roof from passing over the upper edge of the frame, and a flange or apron located below said shield and formed to lie upon the roof, as set forth.

5. The combination, with a fixed frame of a skylight and a shield or cover for the upper end thereof having a projecting wall or flange, of a swinging section or sash having at its upper end a downwardly-projecting flange, said flange partially overlapping the said shield, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 9th day of April, A. D. 1891.

BENJAMIN F. PARROTT.

Witnesses:

C. F. BROWN,

EWING W. HAMLEN.