Jan. 4, 1949. C. D. BELDEN 2,458,134

ADJUSTABLE VENTILATOR

Filed May 4, 1946

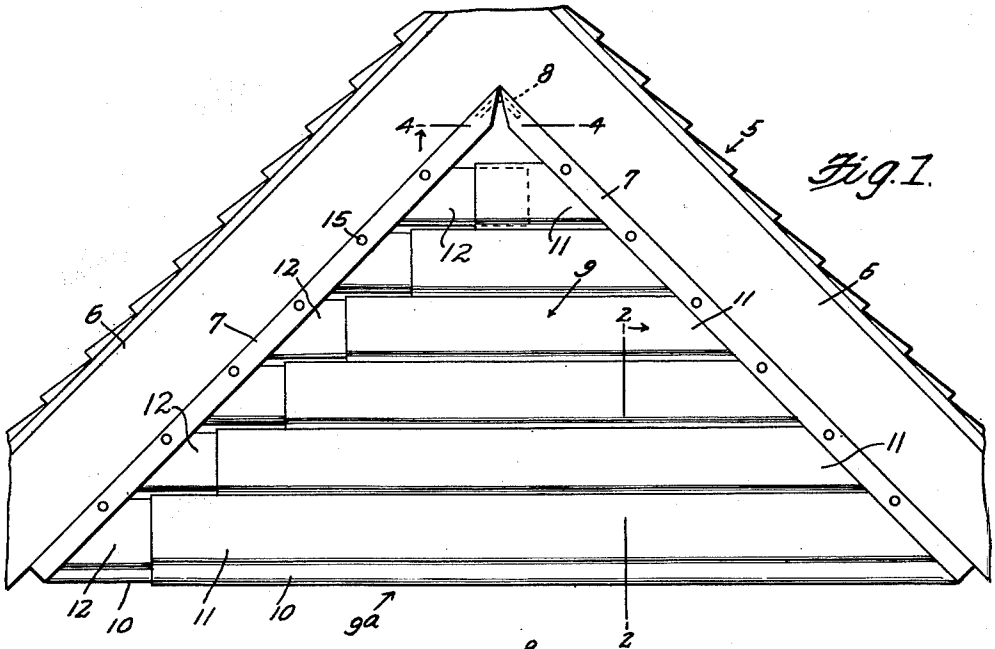


Fig. 1.

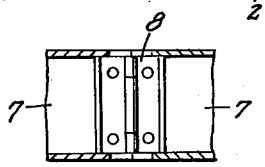


Fig. 4.

Fig. 2.

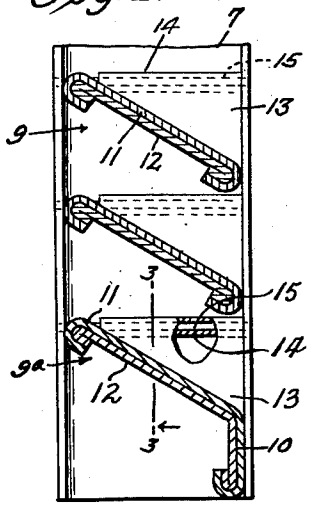
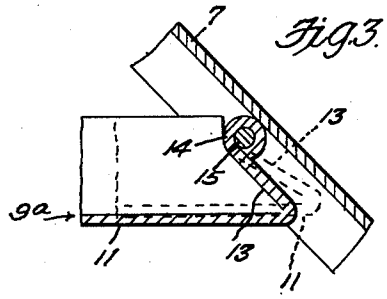


Fig. 3.



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ADJUSTABLE VENTILATOR

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3 Claims. (Cl. 160—223)

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This invention relates to ventilators and more particularly to a type of ventilator such as is well adapted for installation in an end wall of the roof portion of an attic or the like.

More specifically, the invention pertains to a ventilator having an expansible and contractible inverted V-frame with a complemental louver assembly, the louvers being sectional and extensible and contractible in conjunction with the adjustable sections of the frame.

In carrying out the principles of the invention, this through the medium of the special structural adaptation above covered, I have thus provided a ventilator which lends itself, admirably well, to disposition in the extreme upper region of the roof structure, the factor of adjustability being such as to accommodate roof constructions of varying pitches.

Other objects, features and advantages will become more readily apparent from the following description and accompanying illustrative drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a fragmentary end elevation of a portion of an attic roof showing the improved adjustable ventilator, and the manner in which it is arranged and mounted in place for use.

Figure 2 is an enlarged sectional view, this on the plane of the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a section on the line 3—3 of Figure 2.

Figure 4 is a horizontal section on the line 4—4 of Figure 1, looking upwardly in the direction of the arrows.

Referring now to the drawings by distinguishing reference numerals, the attic roof, as a unit, is denoted by the numeral 5 and comprises downwardly and outwardly diverging portions including usual structural parts among which are the so-called frieze-boards 6. The ventilator is adapted to fit in the crotch portion defined by these boards 6.

The ventilator comprises an inverted V-frame made up of duplicate complemental frame sections 7, each in the form of an elongated channel bar. The converging ends of the section 7 are hingedly connected together as at 8 and thus permit said sections to be moved toward and from each other to fit against and be secured to the boards 6.

The louver assembly forming the ventilating panel is made up, as usual, of a plurality of out-

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wardly and downwardly inclined louvers 9 mounted in the V-frame. All of the louvers are the same in construction except the extra louver 9a at the bottom, this having a depending perpendicular apron 10. That is to say, each louver comprises companion telescopically connected sections 11 and 12 of standard form as far as the body portions are concerned. The main distinction in these louvers over others is the fact that the outer ends of the sections 11 and 12 are provided with laterally directed wing-like flanges 13, and these flanges terminate in suitably bent, hinge and attaching knuckles 14. The knuckles are hingedly mounted on cross pins 15, these pins mounted in the channel sections 7 as shown to advantage in Figures 2 and 3. These hinged connections lend the frame sections and louver sections adaptable to assuming their proper relative relationships as the frame is either contracted or spread according to the angularity of the roof parts 6. Or to put it otherwise, since the frame is adjustable it conforms to the pitch of the parts 6 in an obvious manner. It will be noted that the compensating flanges 13 are at acute angles to the sections 11 and 12.

After the ventilator is installed as shown in the drawings, it is most desirable and permissible to attach a screen (not shown) to the interior or exterior side to contribute to the efficiency.

An outstanding advantage attending a ventilator construction of the type herein disclosed is that it can be placed higher up in the attic, that is, in the so-called crotch portion of the inverted V-roof thereby assuring more satisfactory ventilating results. There will be a considerable saving in time and labor, and perhaps expense in installing this type of ventilator over the square type, such as is employed in roofs of the type shown. Where a square type is employed, especially in stucco covered houses, the step of cutting the hole to accommodate the insertible ventilator must be attended with unusual care so as not to split or crack the surrounding surfaces.

With this adjustable inverted V-type ventilator it will be necessary to be careful only in cutting the bottom or horizontal cut of the opening made for accommodation of the ventilator, that is in houses which are constructed prior to installation of the ventilator. It is evident that the preparation of a four-sided hole for a ventilator is attended by obvious difficulties and that the form of ventilator herein shown promises better results.

A careful consideration of the foregoing description in conjunction with the invention as il-

lustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

I claim:

1. A ventilator of the class described comprising an inverted V-frame made up of a pair of complemental channel-shaped members, corresponding ends of said members at one end of said V-frame being hingedly connected together, a plurality of ventilating louvers assembled between said frame members, said louvers being individually extensible and contractible and hingedly connected at their outer ends to the frame members.

2. A ventilator of the class described comprising a frame made up of a pair of diverging channel-shaped members, the inner ends of said members being hingedly connected together, and louvers, each louver being made up of telescopically connected sections, the outer ends of the sections having laterally bent flanges, said frame members being provided with hinge pins, and said flanges being hingedly mounted on said pins.

3. A louver-type attic ventilator of general triangular form adapted for use in an attic roof construction having downwardly and outwardly pitched roof members comprising an inverted V-frame embodying a pair of duplicate frame members hingedly connected, one to the other, at corresponding ends and thus adapted to be swung toward and from each other for adjustment purposes, a multiple louver ventilating panel embodying longitudinally extensible and retractible louvers, and means hingedly connecting the outer ends of said louvers with said frame members, whereby the latter are lengthened or shortened as the frame members are spread apart or moved toward one another.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Number	Name	Date
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OTHER REFERENCES

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