This invention relates to roof ventilators, and for its general object aims to provide a roof ventilator of perfected design which will perform the function for which it is intended more effectively than roof ventilators as they have been heretofore constructed.

The roof ventilator of the present invention is of the conventional type having a base part in which there is provided a screened ventilation opening. As one particular object the invention aims to so engineer said base and hood assembly that the base can be permanently mounted on the roof, and the hood removably secured to said base so as to give access to the screen for the purpose of cleaning the same.

As a further important object the invention purposes to provide an assembly of the described nature characterized in that the screen is itself removable to give access, for cleaning, to substantially all below-screen parts of the ventilator on which dirt or grease may have been deposited.

The invention has the yet additional and particular object of providing an assembly of parts in which said hood and screen may both be removed from and applied to the base part with unusual ease and expedition. As a still further particular object the invention aims to provide an assembly in which a skirt portion of the hood proper is spaced above the base along the front and both sides of a cylindrical upstanding neck in which the ventilator opening occurs, and along the back has a tongue prolongation which is brought into contact with the base part and has a water-tight slip fit therewith.

Other still more particular objects and advantages of the invention will, with the foregoing, appear and be understood in the course of the following description and claims, the invention consisting in the novel construction and in the adaptation and combination of parts hereinafter described and claimed.

In the accompanying drawings:

FIGURE 1 is a top perspective view illustrating a roof ventilator constructed to embody preferred teachings of the present invention.

FIG. 2 is a front elevational view thereof, drawn to a larger scale, with a part broken away and shown in transverse vertical section on line 2--2 of FIG. 4. The ventilator is here shown mounted upon the foundation boards of a roof, associated shingles being deleted from the view.

FIG. 3 is a transverse vertical sectional view drawn to an enlarged scale to detail the structure circled at "3V" in FIG. 2.

FIG. 4 is a fragmentary top plan view of the structure illustrated in FIG. 2, and namely the ventilator and roof boards sans shingles. This view is partly broken away and shown in horizontal section on line 4--4 of FIG. 2.

FIG. 5 is a side elevational view of the ventilators with roof boards and shingles shown by broken lines; and

FIG. 6 is an enlarged-scale fragmentary longitudinal vertical section detailing the forwardly facing narrow pocket provided along the rear end of the base part of the ventilator into which the tongue prolongation of the hood fits.

Referring to said drawings the numeral 10 designates the open base part of the ventilator providing an opening in the foundation boards 11 of a roof. The ventilator of the present invention provides a base part 12 having an opening 13 therein. Such a base part constitutes a flashing and is arranged and adapted to be installed upon the roof in the usual manner, and this is to say with the two openings 10 and 13 in registration, and with shingles 14 underlying the base part along the front and covering such base part along the two sides and the rear.

In forming the opening 13 the sheet metal of which the base part is composed is drawn upwardly to produce an upturned annular flange 15. To prolong this flange upwardly and produce an annular baffle-forming neck of moderate height there is slipped over and crimped to the flange a short collar 16 of sheet metal stove pipe stock. The crimping is so performed as to produce a substantial circumferential bead 17. In addition to securing the collar to the flange so that the neck and body part become integral, the bead 17 acts in conjunction with a second bead deformation 18 spaced thereabove and an out-turned circumferential lip 20 at the upper end of the collar to provide stiffening reinforcement for the neck.

A screen 21 fits over the open top of the neck and has its side edges brought down over the lip 20 and gathered along the exterior surface of the neck, as can be clearly seen from an inspection of FIGS. 2 and 3.

The components 22 and 23 of a split band are clamped about said gathered edges to secure the screen in place, the clamping pressure being applied by sheet metal screws 24 working through out-turned ears of the clamping-band components. This clamping is performed diametrically opposite sides of the neck. It may be noted that the upper of said two beads 17 and 18, in addition to its above-mentioned reinforcing function, serves to retain the clamping band against slipping downwardly on the baffle 16.

The car 26 of each of the two component's said diametrically opposite ears 25 and 26 has a terminal wing 26' bent back to occupy a vertical plane parallel with the longitudinal median line of the ventilator. Occupying opposite sides of the collar, each said wing is notched and is adapted to be saddled by the fly-nut complement 27 for a sheet metal screw 28 having as its function to removably secure a hood 30 to the base part.

The hood has a length and width moderately less than the corresponding dimensions of the base part and along the front and each of the two sides presents a depending skirt section 31 which extends to a level parallel with and spaced above the base plate 32 but lying below the lip 20. The screws 28 are applied through the side skirts. The air-flow capacity of the space above the screen, the space described between the collar and the hood skirts, and the space described between the lower edge of the skirts and the base plate is in each instance equal to or greater than the air-flow capacity of the opening 10 less the restriction imposed by the screen.

At its after end the hood presents an apron section 33 which slopes downwardly and rearwardly and terminates in a rearwardly directed tongue 34 lying parallel with and in touching contact with the base plate. Such tongue finds a removable slip fit in a front-opening pocket 35 formed by a metal strip 36 spot-welded or otherwise rigidly secured to the base plate. An upturned lip prolongation 37 of said strip 36 provides a flaring lead-in throat to guide the tongue into the pocket and additionally forms a trough which funnels rain water running down the roof laterally toward the two sides of the ventilator. Several dimples 39 are or may be pressed into the top wall of the pocket to provide a yielding rattle-free spring grip as between the pocket and the tongue.

The skirt sections of the hood have an out-turned flange 38 along their lower margin, its function being to reinforce the hood against liability of deformation and also obviate liability of water working up under the hood.
As a wiping edge, the lip 20 serves a similar office in precluding water from entering the ventilator opening under force of wind currents.

It is thought that the invention will have been clearly understood from the foregoing detailed description. Changes within the spirit of my teachings may be resorted to without departing from the invention and it is accordingly my intention that the hereto annexed claims be given a scope in their construction fully commensurate with the broadest interpretation to which the employed language admits.

What I claim is:

1. A roof ventilator comprising a base plate formed with a central vent aperture prolonged upwardly by a baffle-producing neck which is open at the top, a screen for said top opening, a hood for the ventilator, and means for removably attaching the hood to the neck so that the hood overlies the neck in a position spaced above said top opening and with its edges extending outwardly beyond the neck and terminating in downturned skirts which, along the front edge and each of the two sides, depend below the top limit of the neck while being spaced above the base plate and, along the back edge, extend into touching contact with the base plate, said attaching means including ears projecting laterally from the neck at opposite sides thereof and against which the side skirts bear, screw means which thread into said ears being provided and said bearing portions of the side skirts against the ears.

2. Structure according to claim 1 in which the part of said downturned skirt which has touching contact with the base plate constitutes a rearwardly extending tongue, the base plate being formed so as to present a forwardly facing groove into which said tongue fits.

3. A roof ventilator comprising a base plate formed with a central vent aperture prolonged upwardly by a baffle-producing neck which is open at the top, a screen overlaid upon said top opening and having a downturned peripheral rim which encircles an upper portion of the neck, a split band clamping means for removably securing the screen upon the neck and being provided about its periphery with a downturned skirt which, when the hood occupies said position overlapping the neck, depends below the level occupied by the upper end of the neck in outwardly spaced relation therefrom, the lower margin of said downturned skirt being spaced above the base plate along its front edge and each of the two sides and along its rear edge extending downwardly into approximate touching engagement with the base plate and thence projecting rearwardly approximately parallel with the base plate to form a tongue, means being provided by the base plate forming a forwardly open housing rigid with the base plate and into which said tongue fits.

4. A roof ventilator comprising a base plate formed with a central vent aperture prolonged upwardly by a baffle-producing neck which is open at the top, a screen overlaid upon said top opening and having a downturned peripheral rim which encircles an upper portion of the neck, a split band clamping means for removably securing the screen upon the neck and being provided about its periphery with a downturned skirt which, when the hood occupies said position overlapping the neck, depends below the level occupied by the upper end of the neck in outwardly spaced relation therefrom, the lower margin of said downturned skirt being spaced above the base plate along its front edge and each of the two sides and along its rear edge extending downwardly into approximate touching engagement with the base plate and thence projecting rearwardly approximately parallel with the base plate to form a tongue, means being provided by the base plate forming a forwardly open housing rigid with the base plate and into which said tongue fits.

5. A roof ventilator comprising a base plate formed with a central vent aperture prolonged upwardly by a baffle-producing neck which is open at the top, a screen overlaid upon said top opening and having a downturned peripheral rim which encircles an upper portion of the neck, a split band clamping means for removably securing the screen upon the neck and being provided about its periphery with a downturned skirt which, when the hood occupies said position overlapping the neck, depends below the level occupied by the upper end of the neck in outwardly spaced relation therefrom, the lower margin of said downturned skirt being spaced above the base plate along its front edge and each of the two sides and along its rear edge extending downwardly into approximate touching engagement with the base plate and thence projecting rearwardly approximately parallel with the base plate to form a tongue, means being provided by the base plate forming a forwardly open housing rigid with the base plate and into which said tongue fits.

6. The ventilator of claim 5 characterized in that means are provided causing the tongue to be resiliently gripped within the housing to give a rattle-free fit.

7. The ventilator of claim 5, means being provided by the housing forming a flared lead-in throat to guide the tongue into the housing.

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