

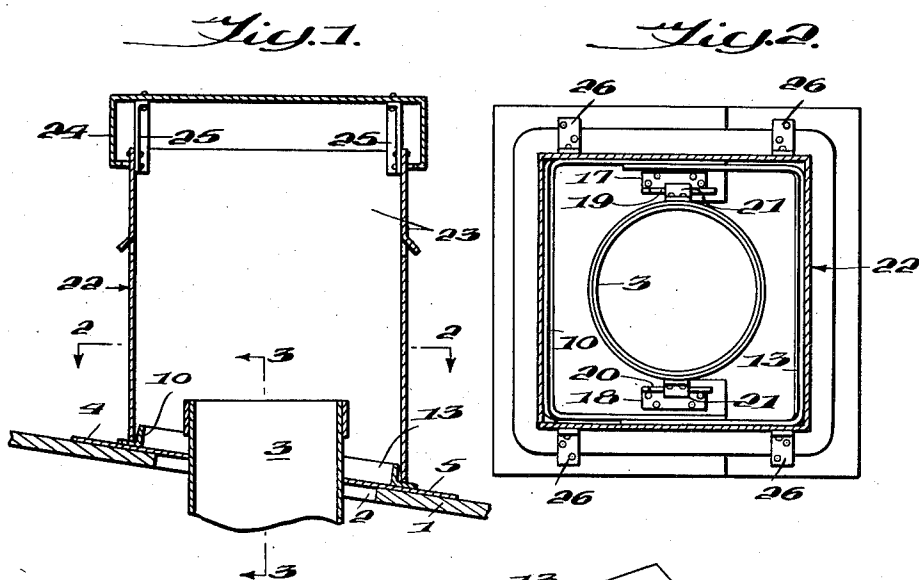
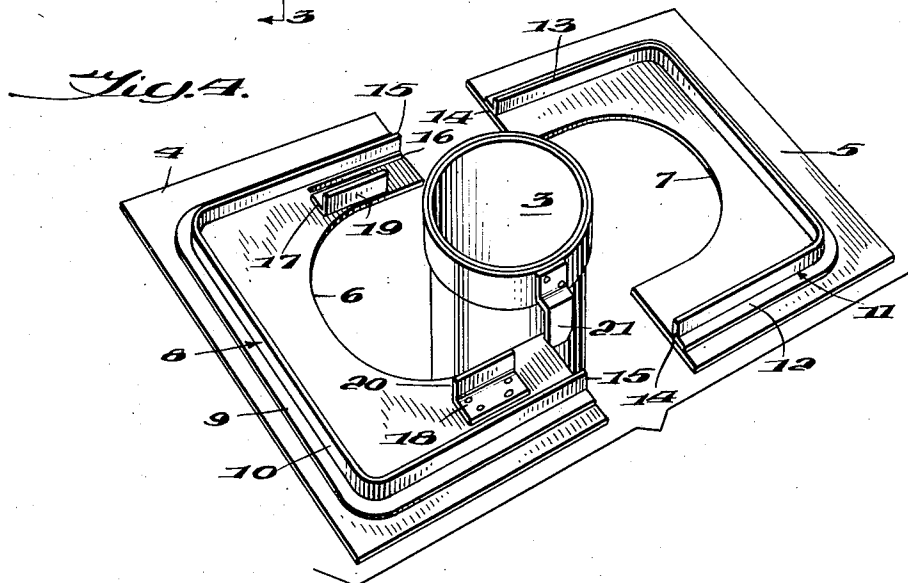
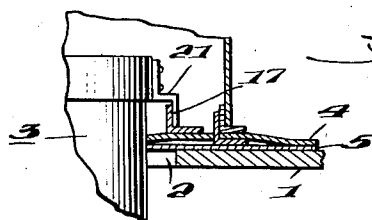
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COMBINATION FLASHING AND CHIMNEY MOUNTING

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COMBINATION FLASHING AND CHIMNEY MOUNTING

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3 Claims. (Cl. 98—46)

This invention relates to chimney constructions and particularly to a combination flashing and chimney mounting. The invention is particularly useful with sheet metal chimney structures, and particularly structures in accordance with my copending application, Serial Number 567,585, filed concurrently herewith.

In recent years, it has become common practice to employ, in many types of housing installations, prefabricated sheet metal chimneys which are largely assembled by the manufacturer. Such chimneys are shipped to the user in such form that relatively little labor is required for installation. Manufacturers of such chimneys have always sought to minimize the amount of labor required for installation, and yet to obtain a completed unit which is structurally superior. One of the primary difficulties with such chimney structures has been to devise a simple mounting means for the chimney pipe or, in most cases today, the more complicated system of several concentric pipes.

The object of the present invention is to provide a chimney mounting means which is combined with the flashing between the chimney casing and roof, in such manner that installation of the device is greatly simplified.

Another object is to devise a combination chimney pipe mount and flashing unit wherein the effectiveness of the flashing is increased.

In order that these and other objects of the invention may be understood in detail, reference is had to the accompanying drawings, which form a part of this specification, and wherein:

Fig. 1 is a vertical sectional view of a device constructed in accordance with one embodiment of the invention;

Fig. 2 is a horizontal sectional view, taken on the line 2—2, Fig. 1, some parts being shown in plan;

Fig. 3 is a fragmentary vertical sectional view taken on the line 3—3, Fig. 1, and

Fig. 4 is an exploded perspective view of the combination flashing and chimney pipe mounting means of the device of Fig. 1.

Referring now to the drawings in detail, the embodiment illustrated is applied to a building structure including a roof 1 having an opening 2. Extending upwardly through opening 2 is a chimney pipe 3. The pipe 3 may be a simple flue, or it may be, for example, the intermediate air duct of a multiple duct chimney assembly of the type disclosed in my aforesaid copending application Serial Number 567,585.

Superimposed on roof 1 so as to cover opening 2 is a flashing unit which also forms the mounting from which chimney pipe 3 extends. This flashing unit comprises a pair of metal flashing sheets 4, 5 provided with notches 6, 7, respectively. The notches 6, 7 are U-shaped, with the bottoms of the U's matching the periphery of the chimney pipe in shape and size. Thus, when the notched portions of the sheets 4, 5 are overlapped, the notches 6, 7

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combine to define an opening which is capable of embracing the chimney pipe, as shown in Fig. 2.

Disposed outwardly of notch 6 is a generally U-shaped flashing flange member 8 of right angle cross-section, the base web 9 of this flange being secured to the top of sheet 4, as by spot welding, and the other web 10 extending upwardly at right angles from sheet 4. Similarly, a generally U-shaped flashing flange member 11 is disposed outwardly of notch 7, its base web 12 being spot welded or otherwise secured to the upper surface of sheet 5. The outer arms 14 of flange member 11 are spaced somewhat closer together than are the outer arms 15 of flange member 8. Sheet 4, as seen in Fig. 4, is provided with a pair of slots 16, each extending closely adjacent to the inner faces of arms 15 of flange member 8. Thus, when flashing sheets 4 and 5 are overlapped to the extent shown in Figs. 2 and 3, arms 14 of flange member 11 are disposed in slots 16 and are in face-to-face contact with arms 15 of flange member 8.

Mounted on sheet 4, as by sheet metal screws, and so positioned as to be diametrically opposed across the opening defined by notches 6, 7, are angle brackets 17 and 18 each having an upstanding web 19, 20. To engage with said brackets, pipe 3 is provided with a pair of diametrically opposed, outwardly offset, downwardly directed lugs 21.

For installation, the pipe 3 is lowered through roof opening 2, and the flashing sheets 4, 5 then slipped into overlapping relationship, with notches 6, 7 engaging pipe 3. The pipe 3 is then adjusted in rotation until lugs 21 are aligned with brackets 17 and 18, the pipe then being further lowered until the lugs engage over the mounting brackets 17 and 18. The flashing unit is secured in place on the roof by nailing through the marginal portions of sheets 4 and 5.

A chimney casing 22 is positioned on the flashing unit, the open bottom end of the casing embracing the flange members 8 and 9, as seen in Figs. 1-3. The casing comprises upright sidewalls 23, and a conventional chimney cap 24, the latter being supported on the sidewalls by means of struts 25. When the casing 22 is lowered into place, after the flashing unit has been nailed down, it is secured by means of brackets 26, Fig. 2, to the flashing unit.

In actual practice, the chimney duct system comprising pipe 3, the flashing unit, and the casing 22 are all completely fabricated at the manufacturer's plant. Thus, aside from the act of properly overlapping sheets 4 and 5, and properly seating the casing 22 on the flashing unit, the workman installing the device has no assembly tasks whatsoever. Further, it will be noted that the workman is not required to build wooden collars, etc., as has heretofore been the case. The simplified construction disclosed herein can be fully installed in as little as ten minutes, assuming that the chimney duct system is a complete, prefabricated unit, while conventional chimney structures of this general type have required as much as an hour or more for installation.

It will be understood that the flashing sheets 4 and 5 and flange members 8 and 11 are fabricated of relatively thin metal, on the order of 30 gauge galvanized steel, for example. Thus, the fact that the web 12 of flange 11 lies between sheets 4 and 5 is of no practical effect, the sheets flexing into place when nailed to the roof.

I claim:

1. In a chimney construction, the combination of a vertical chimney pipe and mounting means therefor comprising a pair of overlapping metal flashing sheets having notches in their overlapped portions of such configuration as to combine to form an opening having the shape and size of the periphery of said pipe, a pair of

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flashing flange members of angle cross-section, each of said flashing flange members being of generally U-shape, with one web thereof lying in the plane of the U and the other extending from such plane, each flashing flange member having said one flange secured to the top face of a different one of said flashing sheets and extending generally parallel to but spaced from the notch of such flashing sheet, the uppermost one of said flashing sheets being provided with spaced slots receiving the arms of the U-shaped flashing flange member carried by the lower flashing sheet, a pair of mounting brackets secured to the uppermost one of said flashing sheets at diametrically spaced points across said opening, said brackets being disposed between said opening and said flashing flange members, said chimney pipe extending through the opening defined by the notches of said flashing sheets, and means secured to said chimney pipe at diametrically opposed points and engaging said mounting brackets to support said pipe.

2. In a building construction, a roof having an opening, a pair of metal flashing sheets each having a generally U-shaped notch in one edge, a chimney pipe extending upwardly through said opening, the bottom of the U of said notches matching the periphery of said pipe in shape, said sheets being disposed on said roof in overlapping relation with the notches of said sheets combining to define an opening embracing said pipe, a pair of flashing flange members each extending upwardly from a different one of said sheets, each flange member being spaced outwardly from the notch of the corresponding sheet and extending generally parallel thereto, whereby said flange members have free ends, the free ends of one flange member being overlapped with the free ends of the other, the uppermost one of said flashing sheets being provided with spaced slots accommodating the free ends of the flange member of the lowermost flashing member, a pair of mounting

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brackets secured to the uppermost flashing sheet at points diametrically spaced across said opening and located between said opening and said flange members, a pair of lugs secured to said pipe and engaged with said brackets to support said pipe, and a chimney casing extending upwardly from said roof to enclose the upper end of said pipe, said casing having an open bottom end embracing said flange members.

3. In a prefabricated metal chimney construction, the combination of a vertical chimney pipe; mounting means therefor comprising a pair of overlapping flashing sheets having mutually aligned notches in their overlapping portions of such configuration as to combine to define an opening having the shape and size of the periphery of said pipe, bracket means secured to one of said flashing sheets and extending upwardly from said flashing sheets to provide upstanding portions at diametrically spaced points across said opening, and means secured to said chimney pipe and engageable with said portions to support said chimney pipe; flashing flange means carried by said flashing sheets and spaced outwardly from said bracket means; and a chimney casing surrounding the upper end of said chimney pipe and having an open bottom engaging said flashing flange means, said flashing flange means comprising two portions each secured to a different one of said flashing sheets and combining, when said sheets are in overlapped relation, to form an upstanding flange matching the shape of the open bottom of said casing.

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