Aug. 30, 1938. D. R. MURPHY 2,128,495

SHEET METAL ROOFING AND SIDING

Filed Sept. 10, 1936

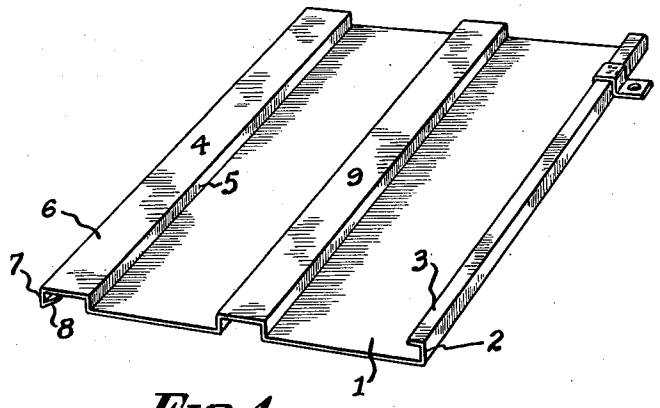


FIG. 1.

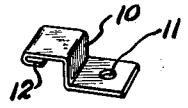


FIG. 2.

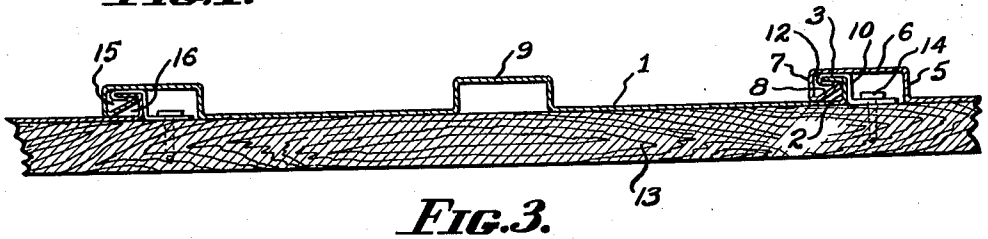


FIG. 3.

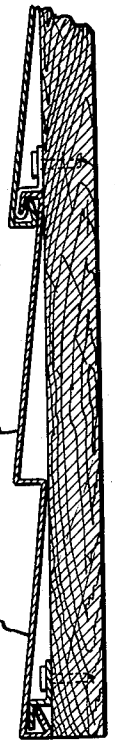


FIG. 4.

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SHEET METAL ROOFING AND SIDING

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6 Claims. (Cl. 108—18)

This invention relates to roofing and siding made from sheet metal. The fundamental features of the invention are common both to the siding and to the roofing. In most of the present types of roofing which may purchased on the market, the services of a skilled mechanic are required in applying them and usually the roofing must be surface nailed. This is detrimental since as the sheet metal of the roof expands and contracts, the nail is worked loose and the nail hole is enlarged, whereby leaks are caused and the roofing is rendered loose. Most of the present day roofing lacks an ornamental appearance and does not have the advantage of ventilated seams.

It is an object of my invention to provide a roofing adapted to be laid on sheathing or a siding adapted to be laid on sheathing to simulate weather board siding which will be neat and attractive in appearance. It is also an object to provide standing seams which will be well ventilated and also to provide means for fastening the roofing or siding to a sheathing base so that no nails will be exposed and no nail holes will be put through the roofing material.

Another object of my invention is to provide roofing or siding material which will be very simple to lay so that the services of a skilled roofer may be dispensed with.

It is a further object of my invention to provide a roofing as has been described, which will be free to expand and contract without working loose from the sheathing.

These and other objects of my invention which will be pointed out hereinafter, or will appear to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe two exemplary embodiments.

Reference is now made to the drawing in which Fig. 1 is a perspective view of one of my sheaths showing the manner in which the attaching cleats are used.

Fig. 2 is a detail perspective view of one of the cleats.

Fig. 3 is a cross sectional view of a section of roofing showing the manner in which a locking of the seams is accomplished.

Fig. 4 is a cross sectional view showing a sheet metal siding in accordance with my invention.

Briefly, in the pratice of my invention, I provide a roofing composed of a plurality of sheets which are formed at their edges with interlocking members and which may have centrally therebetween a stiffening ridge which also adds to the ornamental appearance of the roofing.

In Fig. 1 I have shown a roofing sheet 1, which is formed along one edge with an upwardly bent portion 2 and an inwardly bent portion 3 which is parallel with the sheet and forms a hook which may be used in connection with the cleat which will be described hereinafter, to fasten the sheet to a sheathing.

The opposite edge of the sheet is formed with a ridge indicated generally at 4 which comprises an upwardly bent portion 5, a portion 6 which is parallel with the base of the sheet, a downwardly bent portion 7 and an inwardly and upwardly bent portion 8 which forms a wedging member as will be hereinafter explained. The roofing may be provided with a central ridge indicated generally at 9 having dimensions equal to the dimensions of the ridge 4. The ridge 9 is preferably so located that in the finished roofing the ridges 4 and 9 will be evenly spaced.

In Fig. 2 I have shown a cleat 10 which is roughly of Z-shape and is provided with a hole 11 for fastening it to the sheath and a hook portion 12 for engaging the roof sheet.

In Fig. 3 I have shown a portion of roofing attached to some sheathing indicated generally at 13. As may be seen in this figure the hooked portion 12 of the cleat 10 is hooked over the flange 3 of a roofing sheet and is nailed to the sheathing by means of a nail 14. The angular wedge portion of an adjacent sheet is hooked over the flange which is now a composite of the hooked portion 12 of the cleat and the flange 3. The other edge of this adjacent sheet is then fastened down by means of other cleats 10 as above described. There are thus formed the two channels or ventilators indicated at 15 and 16. It will be seen that by virtue of this construction the roofing may expand and contract without working loose from the cleats 10 which fasten it to the sheathing and that by reason of the fact that no nails pass through the roofing it will not be subject to rapid depreciation.

The siding shown in Fig. 4 embodies identically the same principle as the roofing of Figs. 1 to 3, inclusive with the exception that instead of the ridges 4 and 9 respectively there are formed the sloped portions 17 and 18 respectively which will simulate the ordinary weather board siding. The joint construction in this embodiment is identical to that described above in connection with Figs. 1 to 3 inclusive.

It is to be understood that different forms of my invention may be made without departing from the spirit thereof and that I do not wish

to be limited other than as pointed out in the claims which follow:

Having now described my invention what I believe to be new and desire to secure by Letters Patent is:

1. A sheet metal roofing comprising a plurality of sheets, each having one edge bent upwardly and then inwardly to form a flange parallel to the plane of the sheet, and each having at its opposite edge a ridge formed by an upwardly bent portion, a portion parallel to the plane of the sheet but extending outwardly, a downwardly bent portion extending parallel to said upwardly bent portion, and an upwardly and inwardly bent portion forming an angular flange within said ridge, said sheets being attached to the sheathing by means of Z-shaped cleats hooked over said parallel flanges and nailed to the sheathing, and the opposite edges of adjacent sheets having said angular flanges hooked over said parallel flanges and cleats.

2. A standing seam roofing giving the appearance of a plurality of upstanding ridges in an imperforate sheet, alternate of said ridges concealing the joints between adjacent sheets and between the roofing and the sheathing, said concealing ridge being formed in one edge of the individual sheets and provided with an inturned angular portion, and the other edge of the individual sheets which is concealed within said ridge having a hook portion parallel to said sheets, fastened to the sheathing by means of Z-shaped cleats against which said angular portion bears with a wedging action.

3. A metal roofing sheet having one edge bent upwardly and then inwardly to form a flange parallel to the plane of the sheet, and having at its opposite edge a ridge formed by an upwardly bent portion, a portion parallel to the plane of the sheet but extending outwardly, a downwardly bent portion extending parallel to said upwardly bent portion, and an upwardly and inwardly bent portion forming an angular flange.

4. A metal sheet for protecting wood surfaces, having a parallel hook portion along one edge and a seam concealing portion along the opposite edge, cleats provided with means for engaging said hook portion and for fastening to a supporting surface, said seam concealing portion having an angularly inturned wedging element for engagement with said hook portion within said seam concealing ridge.

5. A sheet metal siding comprising a plurality of sheets each shaped to represent at least one strip of weatherboard siding, each of said sheets having a parallel hook shaped portion along its upper edge as laid, and an inturned angular wedging element along its lower edge as laid, Z-shaped cleats engaged over said upper hook portions and nailed to the supporting surface, and the lower edge of each of said sheets being engaged over said hook portions.

6. A sheet metal siding comprising a plurality of sheets each shaped to represent two or more strips of weatherboard siding, each of said sheets along its upper edge having a parallel hook portion formed from an outwardly bent portion and a downwardly bent portion, Z-shaped cleats engaged over said hook portions and nailed to the supporting surface, each of said sheets along its lower edge having a portion bent inwardly normal to the supporting surface, and an upwardly and outwardly bent angular wedging element, the wedging element of each of said sheets being engaged over said hook portions of the next lowermost sheets.

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