To all whom it may concern:

Be it known that I, Edward C. Plank, a citizen of the United States, residing at Forrest Junction, in the county of Calumet and State of Wisconsin, have invented a new and useful Metallic Roofing-Sheet, of which the following is a specification.

My invention relates to a steel or iron roofing sheet and consists in forming a plurality of ribs transversely of the sheet by pressing the sheet upward from the roof boarding nearly the full width of the sheet, and the object of the ribs is to stiffen the sheet.

It is well known among roofing workmen that the action of the wind when it is excessive upon the sheets in getting under them where the sheets are secured to the roof boards at long distances apart is liable to raise the sheets between its fastenings and produce a noise that can be heard by persons under the roof. This flopping up and down of the sheets is very disagreeable to those hearing it, especially if it occurs during the night and by the formation of these ribs that flopping movement is eliminated. Another result of the use of the ribs is, that the tendency to loosen the sheet fastenings is avoided and the life of a serviceable roof lengthened, as when the sheet becomes loosened, it can only be again secured at some expense and more or less injury to the roof.

My invention is shown in the accompanying drawing, in which—

Figure 1 is a plan of the metallic sheet to which my improvement is applied, the sheet being partly rolled. Fig. 2 is a section through the sheet upon the line a, a, of Fig. 1. Fig. 3 is a section through one of the ribs and a fragment of the sheet, upon a larger scale than Figs. 1 and 2.

Similar numerals indicate like parts in the several views.

1, indicates a sheet of metal to be laid upon a roof with other sheets; 2, a plain smooth edge of the sheet; 3, a roll into which a part of the sheet is wound; 4, a lap joint at its lower end. No particular joint or seam between the sheets is claimed.

5, indicates ribs about one and one eighth inches in width, formed across the sheet to within about two and one half inches of each side edge, and the ribs can be made by stamping from the lower side upward. The apex 6, of each rib is nearer the lower outline 7, of the width of the rib than the upper outline 8. The object of this is, that water can run off easily with a small pitch to the roof. The ribs I arrange at a distance of about one foot apart, but in sheets of a greater width than 24 to 30 inches, it may be advisable to place them nearer together.

The depth of the indentations is approximately one quarter of an inch and at their ends, the indentations are merged into the circular ending 9. The ribs are formed before any side flanges are turned by so little protuberance beyond the upper surface of the sheet, the sheet can be wound into a roll for shipping and handling purposes, as they are shown to be in the incomplete rolls at one end of Figs. 1 and 2. It should be observed that in the formation of the ribs, no sharp angles are produced that might form breaks through the sheet by its being handled, all of the angles being easy ones, and the sheets retain all features of value which any sheet can have. These ribs as arranged across the sheet, when the sheets are laid in a roof, form a sheet metal roof of a “no flop” type, and one that will not be liable to become loosened from its fastenings by reason of the action of the wind upon it.

I am aware that sheet metal roofing sheets have previously been corrugated and ribs formed upon the sheets as in the patent to Wall, June 17, 1873, No. 140,109, Hughes, Sept. 19, 1893, No. 505,169, Cortright et al. Sept. 20, 1887, No. 370,317, but in neither of these will the corrugations permit the winding of the sheet into a roll and this feature is an essential one in order that the sheets, some of which may be 28 inches in width by 10 feet in length may be shipped and handled without liability of bending and breaking the sheets, but with the ribs formed transversely of the sheet and spaced apart as described, no difficulty will be found in winding the sheet into a roll and in unwinding the roll into a flat sheet again.

Having described my invention, what I claim is—

1. A sheet metal roofing sheet adapted to be wound into a roll whose length is the width of said sheet, a series of corrugations made across the sheet by pressing the sheet upward from that surface that is downward when laid upon the roof of a building and forming ribs which extend from approximately two and one half inches from one longitudinal edge of the sheet to within a
like distance of the opposite edge, each corrugation being approximately one and one eighth of an inch in width and one quarter of an inch in depth to the apex of the rib, said apex being curved over its outer surface and nearer the lower boundary of the width of the corrugation, when the sheet is laid upon a roof, than its upper boundary, and said ribs being when the sheet is unwound and laid upon a roof of a building with similar sheets in continuation therewith spaced approximately one foot apart along the slant of the roof.

2. As an article of manufacture, a sheet metal roofing sheet comprising a sheet of the usual standard width and any length up to the longest it is practical to make, a series of corrugations formed upon the sheet by pressing the sheet upward from that surface that will be downward when laid upon a roof of a building and producing ribs which extend from approximately two and one half inches of one longitudinal edge to within a like distance of the opposite edge, each corrugation being approximately one and one eighth of an inch in width and producing a rib extending approximately one quarter of an inch above the surface of the sheet, the apex of said ribs being curved and located nearer to the lower boundary of the width of said corrugation than to its upper boundary, and said ribs being spaced along the length of the sheet approximately one foot apart, and the sheet being adapted to be wound into a roll whose length is the width of the sheet for being shipped to the dealers and users thereof.

EDWARD C. PLANK.

Witnesses:

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