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L. F. LONG

1,902,872

ROOFING

Filed Dec. 22, 1928

Fig. 1.

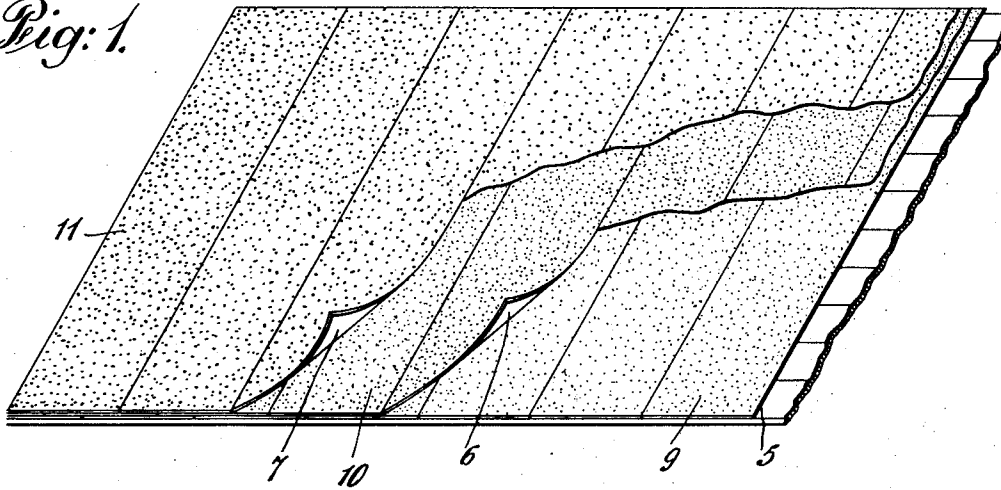


Fig. 2.

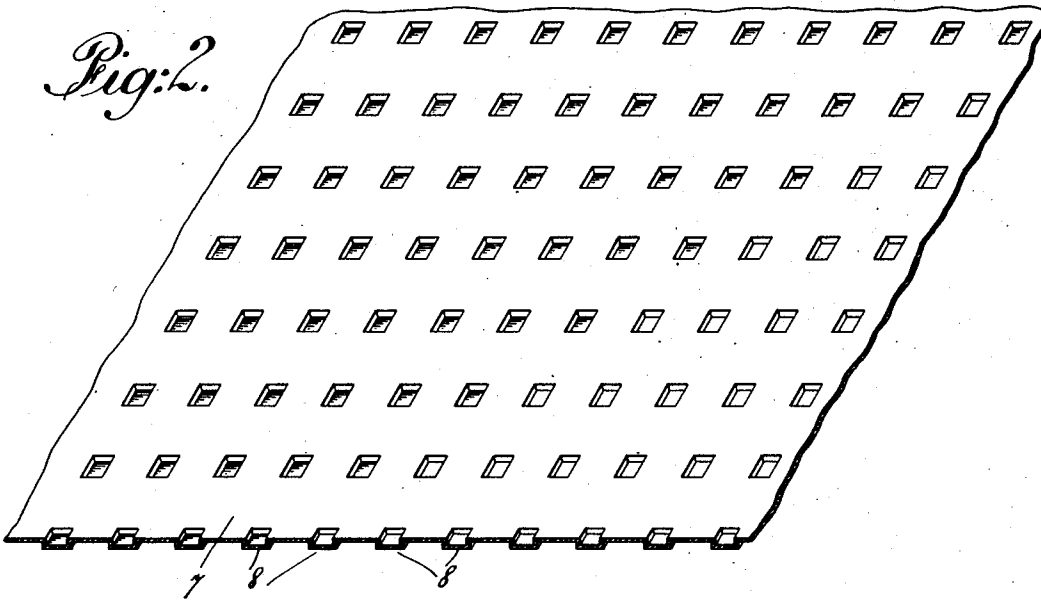
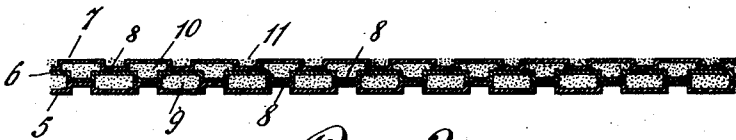


Fig. 3.

LEONARD F. LONG
INVENTOR

BY *Forbes Sibley*
ATTORNEY

UNITED STATES PATENT OFFICE

LEONARD F. LONG, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO THE BARRETT COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY

ROOFING

Application filed December 22, 1928. Serial No. 327,839.

The present invention relates to roofing and construction materials and has for an object to provide an improved roofing material of the type in which felt laminae are treated with bituminous or analogous material to provide a weather proof material.

Roofing of this type is usually made of roofing felt treated with a bituminous compound or with a waterproofing substance of analogous character, the construction being such that the enduring quality of the roofing depends in large part upon the amount of treating material which is retained between and on the exposed surfaces of the felt laminae.

The present invention makes provision whereby a relatively large quantity of the saturating and coating material may be retained by the roofing felt by so forming the felt sheets that a better bond between the felt and the coating material is afforded. To this end the felt is formed with projections or is corrugated and in the embodiment to be more particularly described for the purpose of illustrating the principles of the invention is formed with imperforate projections, as for example as disclosed in the Perry Patent No. 1,331,365 of February 17, 1920. When felts thus formed have applied thereto a coating of pitch or asphalt and are thereafter pressed together, the projections have a tendency to hold the sheets spaced and thus prevent the squeezing out of the coating material.

The nature and objects of the invention will be better understood from a description of a particular illustrative embodiment thereof for the purpose of which description reference should be had to the accompanying drawing forming a part hereof and in which—

Figure 1 is a perspective view of a roof constructed in accordance with the invention indicating the arrangement of the several plies of material constituting the roof,

Figure 2 is a detail perspective view indicating the structure of the roofing felt, and

Figure 3 is a detail sectional view.

In the embodiment of the invention illustrated and more particularly to be described,

the roofing is formed in place and comprises a plurality of plies of roofing felt coated with pitch or other bituminous material. The roofing felt shown is a felt 5, 6, 7 of medium saturating quality formed to provide imperforate projections 8, forming pockets for the reception of coating material and also affording a better bond between the roofing felt and the coatings 9, 10, 11 of pitch or other bituminous material. The projections also have a tendency to hold the felt laminae spaced from each other and thus prevent the squeezing out of the coating material therebetween when pressure is applied. Inasmuch as the weather resisting quality of the roofing depends in large part upon the amount of pitch or other coating material of similar character which is held in place, the invention provides an improved roofing as compared with roofing in which smooth felt is used.

The better bond afforded between the felt and the coating material makes it possible to provide an effective roofing using a smaller number of plies of felt than required in the event smooth felt is used. For example, a roofing built up of three plies of hard felt formed with projections and with the heavy coatings of pitch therebetween, which may be employed in accordance with my invention, may be made to afford a roofing of substantially the same quality as a roofing having five plies of roofing felt of usual character.

The roofing shown is formed in place by applying two or more thicknesses of the saturated felt over the roof area with a heavy coating of pitch spread on each thickness of felt as it is laid. A suitable finish coating as of crushed slag, gravel, or other suitable surfacing material may be applied to the top coating of pitch, if desired.

The first thickness of felt 5 may be laid with the projections 8 on the upper surface and the other thickness or thicknesses may be and preferably are laid with the projections on the underside.

Each superposed thickness of felt may be rolled with suitable pressure which may, if desired, be sufficient to bring the projections

into contact with the next lower felt but in any event the pressure should not be sufficient to flatten the corrugations.

In lieu of having all the sheets of the built-up roofing formed with projections, the usual smooth type saturated felt sheets may be substituted for some of the sheets having projections, the smooth sheets cooperating with the sheets having projections to permit the application of a heavy coating of pitch or asphalt therebetween. The roof is built-up as heretofore with the exception that felt having projections as disclosed herein is used instead of all or some of the smooth felt sheets heretofore used and thicker layers or coatings of pitch are provided between the series of adjacent sheets which involve the sheets having projections.

The foregoing particular description is illustrative merely and is not intended as limiting the scope of the invention.

I claim:

1. As an article of manufacture, a sheet of roofing material comprising a plurality of superimposed felt sheets, at least one of which is formed with projections forming pockets for the reception of coating material and extending toward an adjacent sheet so that the space between the surfaces of the projections and the overlying portions of the adjacent sheet is of less extent than the space between the recesses intervening said projections and the overlying portions of the adjacent sheet, a heavy coating of bituminous material being provided between the sheet having projections and the adjacent sheet and filling said intervening recesses.

2. As an article of manufacture, a sheet of roofing material comprising a plurality of felt sheets heavily coated with bituminous material and having projections forming pockets for the reception of coating material and holding the sheets in spaced relation so that the space between the surfaces of the projections and the overlying portions of the adjacent sheet is of less extent than the space between the recesses intervening said projections and the overlying portions of the adjacent sheet, the bituminous material filling the space between said sheets and said intervening recesses.

3. As an article of manufacture, a sheet of roofing material comprising a plurality of felt sheets coated with bituminous material, at least one of said sheets being formed with relatively small imperforate projections spaced relatively to each other both longitudinally and transversely of said sheets, the projections holding said sheets in spaced relation and providing on the other side pockets for the bituminous material.

4. As an article of manufacture, a laminated sheet of roofing material comprising a plurality of felt sheets arranged in superposed relation, each of said sheets being

coated with bituminous material, said sheets being formed with relatively small imperforate projections spaced relatively to each other both longitudinally and transversely throughout the entire extent of said sheets, the projections providing spacing means on one side of said sheets to hold them in spaced relation and providing pockets on the opposite side for the bituminous material.

5. As an article of manufacture, a roof covering comprising a plurality of felt sheets arranged in superposed relation, each of said sheets being coated with bituminous material, said sheets being of substantially uniform density and thickness and having relatively small imperforate projections extending above the surface plane of the sheet on one side and complementary depressions on the opposite side spaced relatively to each other longitudinally and transversely of said sheets, said projections serving to hold said sheets in spaced relation, said depressions forming pockets for the bituminous material, and said coating of bituminous material filling the pockets between adjacent sheets and bonding the felt sheets on opposite sides thereof.

In witness whereof, I hereunto affix my signature.

LEONARD F. LONG.