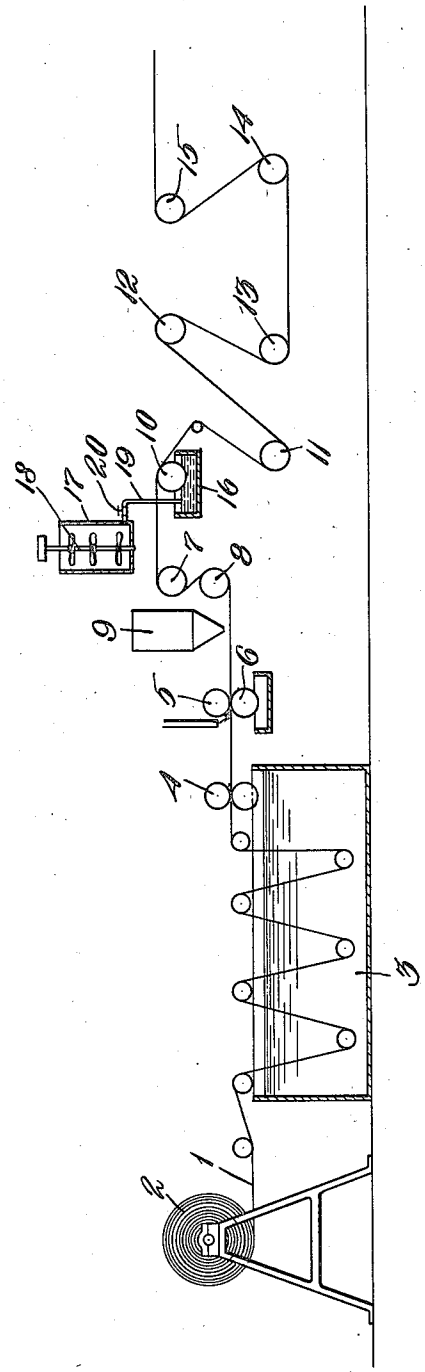
Jan. 22, 1924. 1,481,430

F. C. OVERBURY

MANUFACTURE OF ASPHALT ROOFING

Filed Nov. 24, 1919



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UNITED STATES PATENT OFFICE.

FREDERICK C. OVERBURY, OF HILLSDALE, NEW JERSEY, ASSIGNOR TO THE FLINTKOTE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

MANUFACTURE OF ASPHALT ROOFING.

Application filed November 24, 1919. Serial No. 340,128.

To all whom it may concern:

Be it known that I, FREDERICK C. OVERBURY, a citizen of the United States, residing at Hillsdale, in the county of Bergen and State of New Jersey, have invented new and useful Improvements in the Manufacture of Asphalt Roofing, of which the following is a specification.

This invention has relation to the manufacture of prepared roofing or flooring in which paper felt is saturated or impregnated with a waterproofing compound of a bituminous or asphaltic nature having a relatively low melting-point and then coated with a layer of higher melting-point pitch or asphalt. For use as a roofing, such sheets thus prepared are usually surfaced with crushed slate or other mineral which is applied to the asphaltic coating while the latter is still soft and plastic and is partially embedded therein by pressure. The sheets for some purposes are thereafter cut into shingles or shingle strips or slabs of various designs.

The present invention has for its object to apply to the under uncoated face of the sheet some such powdered material as talc, infusorial earth, powdered soapstone or slate, or their equivalents to render such under face nonadhesive and thus prevent the convolutions of a rolled sheet, or the individual shingles or strips of a package, from sticking together.

In accordance with the present invention, this is accomplished by making an aqueous suspension of water and the powder, and applying such mixture to the under side of the sheet in any suitable way, the subsequent evaporation of the water leaving a thin surface or layer of the powder on the surface of the sheet. This has a further advantage in that the application of water assists in cooling the sheet and solidifying the impregnating compound contained in the pores and interstices of the sheet.

On the drawing, which shows the several instrumentalities conventionally and more or less diagrammatically, a sheet of felt is indicated at 1 and is supplied from a roll 2 as usual. The sheet is drawn through the usual saturating tank 3, which contains the molten low-melting-point pitch or asphalt, and, after passing the usual squeeze rolls 4, by which the surplus or excess compound is squeezed from the impregnated felt, so as to leave the surface of the felt "dry", the sheet passes to the rolls 5, 6, where the higher-melting-point pitch or asphalt is applied on the top surface of the sheet and then to the rolls 7, 8. At 9 is the hopper by which the crushed slate or other mineral material is applied to the plastic top coating, and the surface layer formed thereby is partially embedded in the coating by the pressure of the rolls 7, 8. The sheet is then passed over or around cooling or chilling rolls 10, 11, 12, 13, 14, 15, which are supplied with a cooling or refrigerating medium in the usual way. In accordance with the present invention, I cause the roll 10 to dip into a bath consisting of water in which is suspended some inert fine mineral powder insoluble in water, such as previously described. This bath is contained in a tank 16 to which the aqueous suspension is delivered from a mixer 17 having an agitator 18, by a pipe 19 provided with a valve 20. The roll carries the suspension upwardly on its surface, and applies it to the under side of the sheet. The water rapidly evaporates from the sheet leaving a thin non-adhesive layer of the powder adherent to the face of the sheet. After leaving the roll 15, the sheet may be festooned and wound into a roll, or cut into strips or shingles as may be desired.

The application of the aqueous powder suspension to the sheet assists in cooling the sheet and partially solidifying the contained bitumen, the subsequent evaporation of the water also furthering such cooling. It is evident that the powder suspension may be applied in any other suitable ways, as by sprays, brushes or the like. By mixing the powder or slate dust with the water, and thus applying it, I prevent the atmosphere of the mill from being contaminated with flying dust. The powder cakes more or less on the sheet, when the water evaporates and adheres more tightly thereto, than when it is deposited dry on the sheet.

What I claim is:—

In the manufacture of prepared asphalt roofing, impregnating felt with a molten asphaltic compound, then applying to the saturated sheet an inert insoluble powdered mineral of the character of talc or slate, suspended in water, and then permitting the evaporation of the water leaving the powdered material on the surface of the sheet.

In testimony whereof I have affixed my signature.

FREDERICK C. OVERBURY.