

H. CUMFER AND O. D. MCFARLAND.
 PROCESS OF MAKING PREPARED ROOFING.
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1,394,149.

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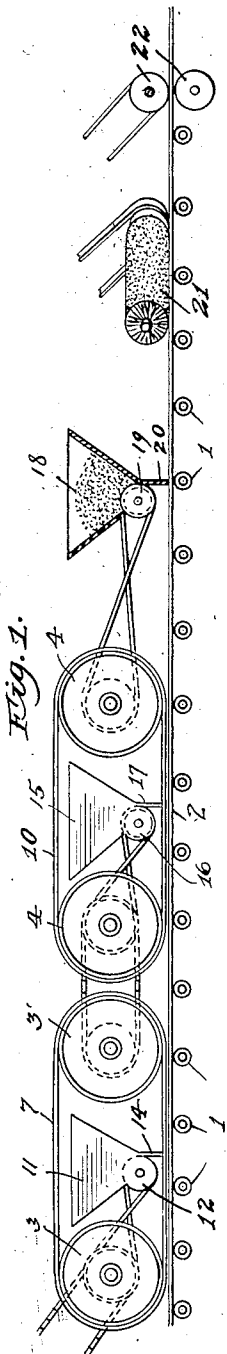


Fig. 1.

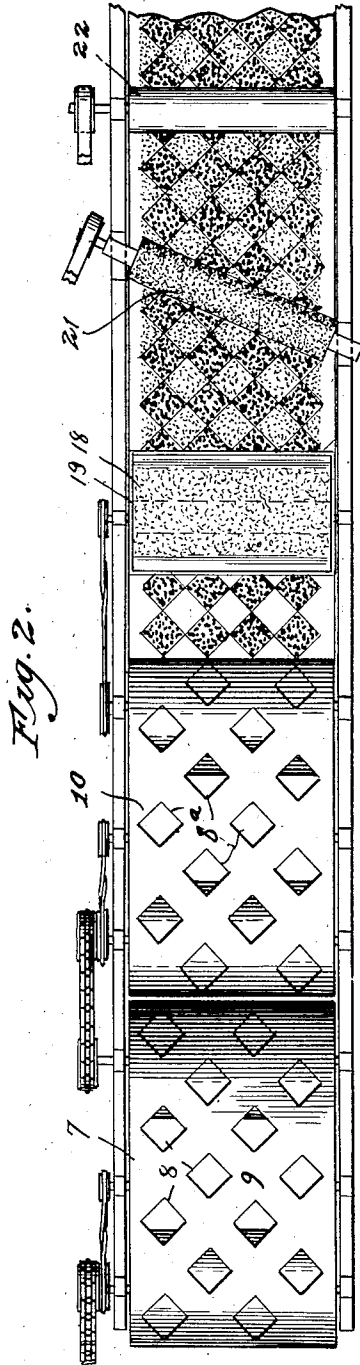


Fig. 2.

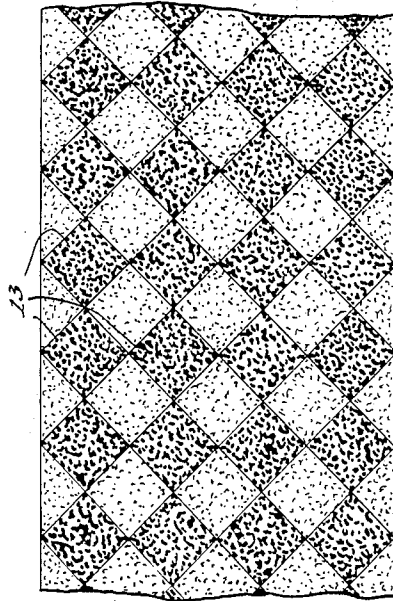


Fig. 3.

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UNITED STATES PATENT OFFICE.

HARRY CUMFER, OF CHICAGO, ILLINOIS, AND OWEN D. McFARLAND, OF MISHAWAKA INDIANA, ASSIGNORS OF ONE-FOURTH TO CARL F. HOFMANN AND ONE-FOURTH TO GEORGE P. HEPPEL, BOTH OF CHICAGO, ILLINOIS.

PROCESS OF MAKING PREPARED ROOFING.

1,394,149.

Specification of Letters Patent.

Patented Oct. 18, 1921.

Original application filed May 5, 1913, Serial No. 765,696. Divided and this application filed April 1, 1918. Serial No. 225,959.

To all whom it may concern:

Be it known that we, HARRY CUMFER and OWEN D. McFARLAND, both citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, and Mishawaka, county of St. Joseph, and State of Indiana, respectively, have invented certain new and useful Improvements in Processes of Making Prepared Roofing, of which the following is a specification.

This application is a divisional application of an original application filed May 5th, 1913, Serial #765,696.

Our invention relates to that class of material known as roofing paper or felt in which a strip of suitable material is coated with tar, asphaltum or other suitable waterproofing material and finely divided or granular slate, soap stone or sand is more or less embedded in the waterproofing material and thereby attached to the exposed side of the sheet.

The object of our invention is to provide a process for producing roofing of the kind described in which the granular material may be laid on in patterns using material of various colors or other physical characteristics; to produce a more ornamental and thus a more desirable roof.

In the accompanying drawings:

Figure 1 shows a mechanism adapted for carrying out the process of this application.

Fig. 2 is a plan view of the same.

Fig. 3 shows a desired form of the finished roofing.

Describing now the drawings, 1 are rollers or other suitable means arranged for supporting the coated roofing material 2 preferably arranged to receive the material as it comes from the usual coating machine (not shown). The pattern belt 7 is arranged directly above the strip 2 as it lays on the supports 1 and is supported in position by a pair of drums or rollers 3' so arranged so that the part of the pattern adjacent the roofing material may be just out of contact with the waterproofing material. The pattern belt 7 is provided with apertures 8 through its surface of any desired form or size adapted to accurately correspond with some figure or part of a figure which it is desired to show in a design upon the surface of the finished material; for example, in the

form shown, a series of square or rectangular openings 8 are provided of substantially uniform size and their diagonals in line. The several openings however, are supported by a space 9 sufficient to permit an opening of substantially the same size to be positioned between their adjacent corners.

The second pattern belt 10 is provided having a similar series of openings 8' and is mounted upon suitable drums or rollers 4 and 4' and arranged to cooperate with the pattern belt 7 so that when the roofing material 2 is moved synchronously with the belts 7 and 10 an impression of the openings of the two pattern belts will show a series of squares or rectangles 13 connected at their corners as shown in the drawings. Obviously where the completed design is such that the squares or other figures are sufficiently separated from each other to permit all of the figures of one color or kind to be cut through the surface of a single pattern but without unduly weakening it, a single pattern belt may be employed and produce substantially the same result. Any suitable means may be provided to direct a suitable granular material through the openings in the pattern belts to the roofing material beneath them. In the form shown, a hopper 11 is positioned between the drums 3—3' with a suitable feeding mechanism 12 of any desired form, adapted to discharge a predetermined amount of material in the hopper at a substantially uniform rate, over the entire surface of a side of the belt 7 adjacent the roofing material 2. A brush or scraper 14 is provided to direct the granular material from the feeder to the belt and prevent its being carried by the belt beyond the scraper where it might interfere with the operation of the belt or become dusted over those portions of the material intended to be protected by the solid portions of the pattern. A hopper 15 with feeder 16 and scraper 17 is provided for the pattern belt 10 so that when the material passes beyond the drum 4', substantially one-half of its surface will be covered with a granular material from the hoppers 11 and 15 arranged in squares or rectangles corresponding to the openings in the pattern belts 7 and 10 while the remaining one-half also in the form of squares will be entirely free from same.

The remaining areas not covered with the granular facing are now connected by passing the sheet beneath the hopper 18 provided with a feeder 19 and scraper 20 adapted to direct a substantially uniform layer of the granular material onto the roofing material. 2. A brush 21 or other convenient means is positioned slightly above the surface of the roofing material to remove all surplus granular material. When thus constructed, the pattern belts 7 and 10 operate as above described and the hopper 18 and feeder 19 deposit a substantially uniform coating of granular material over the entire surface of the roofing material including the portion previously covered through the pattern belts 7 and 10, these parts receiving a double portion, the excess part of which is removed with a brush 21 before reaching the ironing or pressure rolls 22 for embedding the granules into the coating of the roofing material.

We claim as our invention:

1. A process for producing prepared roofing which consists in feeding a roofing sheet having an adhesive surface beneath a traveling perforated pattern passing granular grit of a predetermined color through the openings in said pattern to apply the grit to spaced and selected areas of

the adhesive surface and then applying grit of a different color but of the same character over the entire surface of the sheet, said second grit adhering only to the uncoated areas of the roofing sheet.

2. A process of producing prepared roofing which consists in feeding forward a roofing sheet having an adhesive surface, causing a perforated pattern to travel adjacent the adhesive surface, passing granular grit of a predetermined color and character through the openings in the pattern to apply the grit to spaced and selected areas of the adhesive surface and then applying grit of a different color and a predetermined character over the entire surface of the sheet, said second grit adhering only to the uncoated areas of the roofing sheet and then removing the surplus grit not adhering to the coating.

3. A process for producing prepared roofing consisting in applying grit of a predetermined color and character to spaced selected areas of an adhesive coated surface and then applying grit of a different color but of the same character to the uncovered areas of said adhesive surface.

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