

Dec. 26, 1922.

1,440,358

I. B. WHETSTONE.
PROTECTIVE COVERING MATERIAL FOR BUILDINGS.
FILED MAY 29, 1922.

Fig. 1.

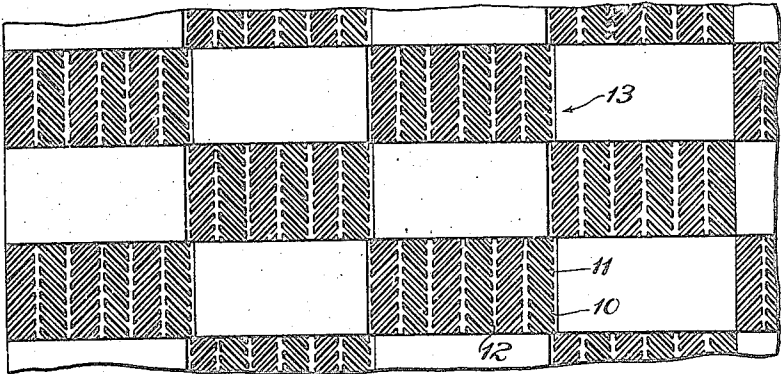


Fig. 2.

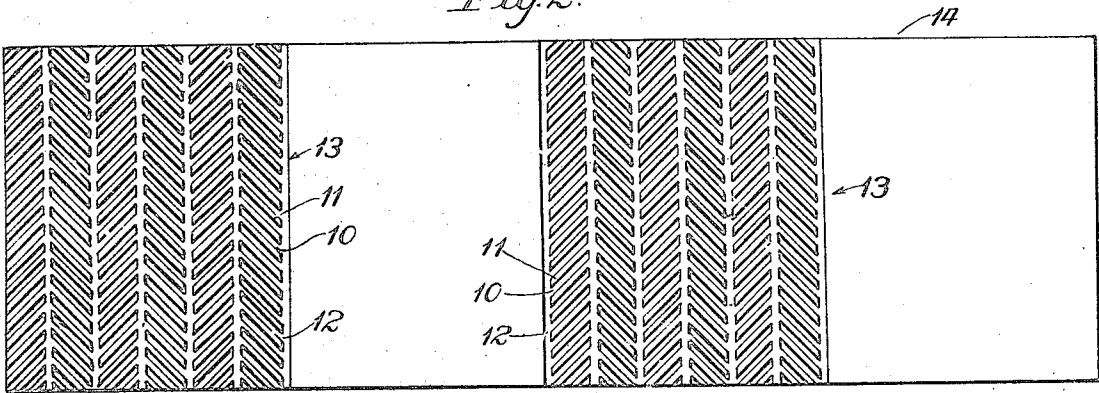
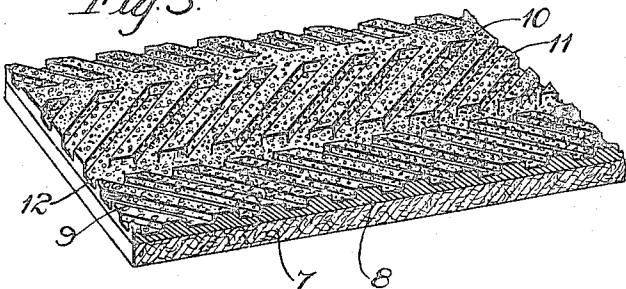


Fig. 3.



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UNITED STATES PATENT OFFICE.

IRENE B. WHETSTONE, OF CHICAGO, ILLINOIS.

PROTECTIVE COVERING MATERIAL FOR BUILDINGS.

Application filed May 29, 1922. Serial No. 564,560.

To all whom it may concern:

Be it known that I, IRENE B. WHETSTONE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Protective Covering Material for Buildings, of which the following is a specification.

The invention relates to a building material providing a protective covering for such surfaces as are exposed to the weather or are subject to wear, as, for example, the roof, walls and floors in a building.

The primary object of the invention is to produce a material of the character indicated which presents to the eye a pleasing appearance; is structurally advantageous because of its strength and durability, and because of the facility with which it sheds water; and at the same time is capable of economical manufacture.

More specifically, the object is to produce a material of the character indicated in which, by the mere shaping of the surface, or predetermined areas thereof, to form contiguous alternating ribs and depressions, a shading effect may be obtained which lends a distinct appearance to the material, while contributing to its firmness, durability and general efficiency.

For purposes of illustration I have shown my invention as embodied in a roofing material of a well known type, but it is contemplated that the invention may be embodied in protective coverings used for other purposes and made of various kinds of materials, whether in sheet or strip form. Moreover my invention is not limited to the particular manner of effecting the irregular surface formation herein shown to obtain the desired results for various changes will doubtless occur to those skilled in the art but without departing from the spirit and scope of my invention, as expressed in the appended claims.

In the drawings, Figure 1 is a plan view of a section of a roof having a roofing material embodying my invention applied thereto. Fig. 2 is a plan view of my improved material in strip form. Fig. 3 is a fragmentary perspective view illustrating a preferred form of surface formation to produce a varied color effect.

The material selected for purposes of illustration comprises a base 7 in the form of a sheet of felt or the like coated with a plastic bond 8, such as a layer of asphalt. The latter in turn is coated with a granular material 9, such as crushed slate. This material is of a well known character. To obtain the desired color effect I employ the principle of shading through the use solely of a plurality or series of alternating indentations or depressions and elevations or ribs. These may be of any desired formation and arranged in any desired manner, but I prefer to avoid the use of such elongated indentations or depressions as extend for any substantial length over the surface of the material for the reason that they tend to weaken the same with a resulting tendency to curl or warp and to crack when the fastening nails are driven therethrough. I therefore arrange the depressions and ribs in a diagonal or oblique position upon the strip or sheet preferably spaced apart both longitudinally and transversely of the sheet. Thus as shown in the drawings I have provided alternating grooves 10 and ribs 11 of relatively short length and disposed diagonally or obliquely, and preferably I arrange such grooves and ribs in rows, with the grooves and ribs of adjacent rows oppositely disposed or inclined so as to form pairs to produce a design after the fashion of a herring-bone. The upper adjacent ends of each pair of grooves are preferably spaced a short distance apart, and their lower ends terminate in a channel or gutter 12 formed longitudinally of the sheet. The special formation of the surface of the material thus provided not only does not weaken the same but it actually serves to reinforce or strengthen the same and this in both transverse and longitudinal directions. Furthermore, no water pockets are formed but on the contrary free and rapid drainage is ensured. Also, by avoiding the use of uninterrupted ribs, the material is rendered sufficiently flexible either transversely or longitudinally so as to be capable of being rolled when made in sheet form.

I desire to emphasize the fact that what I have herein termed as the varied color effect is produced not by the use of different colors in the material itself but by the use

solely of a surface formation producing a shaded effect. This renders it possible to produce a material superior in character to the roofing material of the prior art where-
5 in varied color effects are obtained either through a printing process or through a process of exposing portions of the plastic, and either at a substantially increased cost or at the expense of producing a weakened and
10 generally inferior construction. On the other hand I obtain through my invention the desired variation in color effect without adding perceptibly to the cost of the material and with the advantage of increased
15 strength with unrestricted drainage.

In the production of the material, the means and method commonly employed are used with the addition only of suitable pressure rolls (not shown) having formed in
20 their peripheral surfaces the necessary ribs and depressions to produce the desired formation of the material. Herein I have shown one surface only of the material specially formed, but it will be apparent that
25 both sides may be so formed if desired. The surface forming operation is preferably performed as the final operation, and in the case of the material shown herein, after the granular material has been applied.

30 The particular areas in which the surface of the material is specially formed to produce the desired color effect may be varied as desired. Thus it may cover the entire surface of the sheet. A preferred construction
35 is that wherein it is applied to spaced areas 13 (Fig. 1) producing alternating plain and shaded areas or panels, a two-tone effect which presents a strikingly pleasing appearance to the eye. In the event that the roofing
40 is made in strip form as shown at 14 (Fig. 2), the strips are placed in any suitable way, such as end to end with the upper edges of the strips slightly overlapped by the lower edges of the upper adjacent strips. It
45 will be apparent that if it is desired to obtain the result shown in Fig. 1, with the upper adjacent strip with its plain area directly over the shaded area of the lower strip, this may be accomplished by turning
50 the former end for end with respect to the latter.

It will be apparent that I have produced a protective or covering material of an advantageous character solely through the
55 medium of a special surface formation which when arranged to produce alternating plain and shaded areas or panels lends a desirable varied color effect, pleasing to the eye, while at the same time strengthening the material. When employed as a floor
60 covering, the roughened surfaces have the added function of preventing slippage especially when such surfaces are wet.

This application is a continuation in part
65 of my copending application Serial No.

558,542, filed May 4, 1922, wherein I have described and claim broadly a roofing or like building material having in predetermined areas roughened surfaces producing a two-tone effect.

I claim as my invention:

1. A building material comprising a fibrous base, and a plastic bond having a granular coating and having reinforcing
75 ribs arranged in spaced relation both longitudinally and transversely of the material and producing by shading an appearance differing from the initial smooth surface of the material, said ribs being obliquely disposed so as to resist bending strains in both
80 longitudinal and transverse directions.

2. A strip shingle having a fibrous base, a plastic bond, and a granular surface coating of uniform color throughout; and alternating
85 depressions and elevations formed in the surface of the strip in spaced areas so as to produce alternating plain and shaded panels, said depressions and elevations being obliquely disposed.

3. A building material including a plastic
90 substance having alternating ribs and grooves arranged in contiguous relation obliquely disposed, and drain gutters with which the lower ends of the grooves communicate.

4. A protective covering material including a plastic substance having formed therein
95 alternating inclined grooves and depressions of relatively short length and spaced apart so as to produce by shading a desired
100 variation in appearance while permitting the material to be flexed.

5. A protective covering for roofs and the like having a body of relatively soft material with elongated obliquely disposed
105 depressions formed therein in contiguous relation and spaced apart longitudinally of the sheet so as to permit the sheet to be rolled.

6. A protective covering for roofs and
110 the like comprising a body of relatively soft material and having its surface shaped to produce a shaded effect by forming alternating ribs and depressions arranged in rows, the depressions and ribs of adjacent
115 rows being inclined in opposite directions.

7. A protective covering having a body of relatively soft material and ribs and depressions formed in the surface of the body
120 and arranged in rows with the depressions and ribs of adjacent rows disposed obliquely.

8. A protective covering having a body of relatively soft material and ribs and depressions formed in the surface of the body
125 and arranged in rows, with the depressions and ribs of adjacent rows disposed obliquely, and with the depressions of the respective rows spaced apart, there being drain gutters with which the lower ends of the depressions communicate.

9. A building material comprising an elongated strip having a body of a relatively soft substance provided at predetermined intervals with rows of ribs relatively inclined in herring-bone fashion producing an irregular surface formation, the alternating plain and shaded panels lending a two-tone appearance to the material.
10. A building material in the form of an elongated strip having obliquely disposed reinforcing ribs arranged in spaced relation both longitudinally and transversely of the strip and producing by shading an appearance differing from the initial smooth surface of the material.
11. A building material of the character indicated having reinforcing ribs arranged in spaced relation both longitudinally and transversely of the material and producing by shading an appearance differing from the initial smooth surface of the material, said ribs being obliquely disposed so as to resist bending strains in both longitudinal and transverse directions.
12. A building material having obliquely disposed reinforcing ribs and grooves of relatively short length arranged in spaced relation so as to permit the material to be rolled.
13. A protective covering material of the character described having formed in its surface, pairs of grooves in contiguous relation to produce a shading effect, the grooves of each pair being inclined in opposite directions.
14. A protective covering material of the character described having formed in its surface pairs of grooves in contiguous spaced relation to produce a shading effect, the grooves of each pair being inclined in opposite directions with the adjacent ends of each pair spaced a short distance apart.
15. A roofing or like material having a body formed of a relatively soft substance and shaped to provide in predetermined areas only series of contiguous elongated depressions obliquely disposed.
16. A roofing or like material having a body formed of a relatively soft substance and shaped to provide in predetermined areas only a series of contiguous grooves of relatively short length and obliquely disposed.
17. A roofing or like covering comprising a plurality of elongated strips arranged in overlapping relation each having a body formed of a relatively soft substance and shaped to provide in predetermined areas only a plurality of inclined contiguous grooves with ridges between them, said predetermined areas being spaced apart both longitudinally and transversely of the covering.

In testimony whereof, I have hereunto affixed my signature.

IRENE B. WHETSTONE.