

(Specimens.)

H. BORMANN.
SHINGLE.

No. 455,272.

Patented June 30, 1891.

Fig. 1.

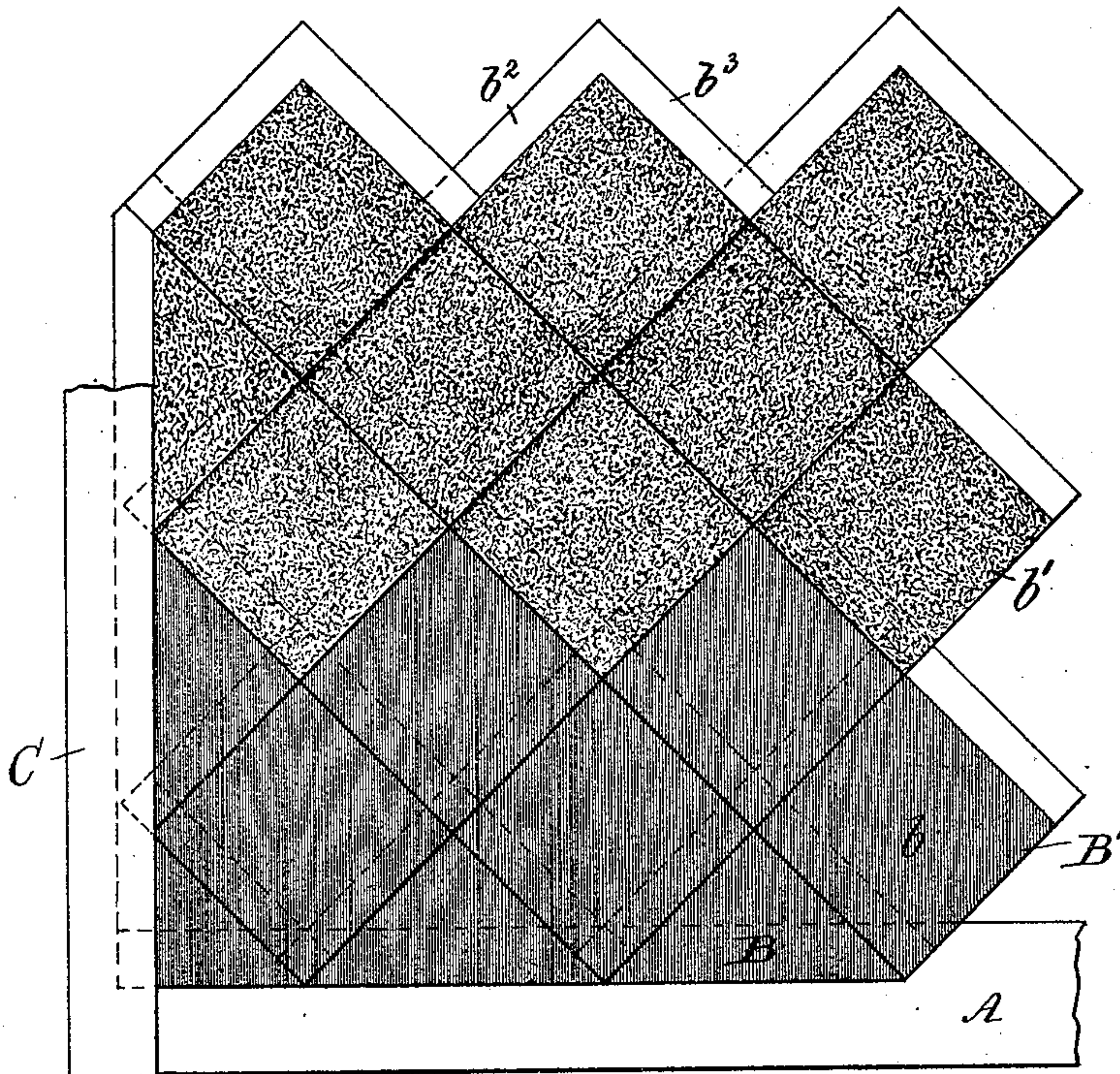
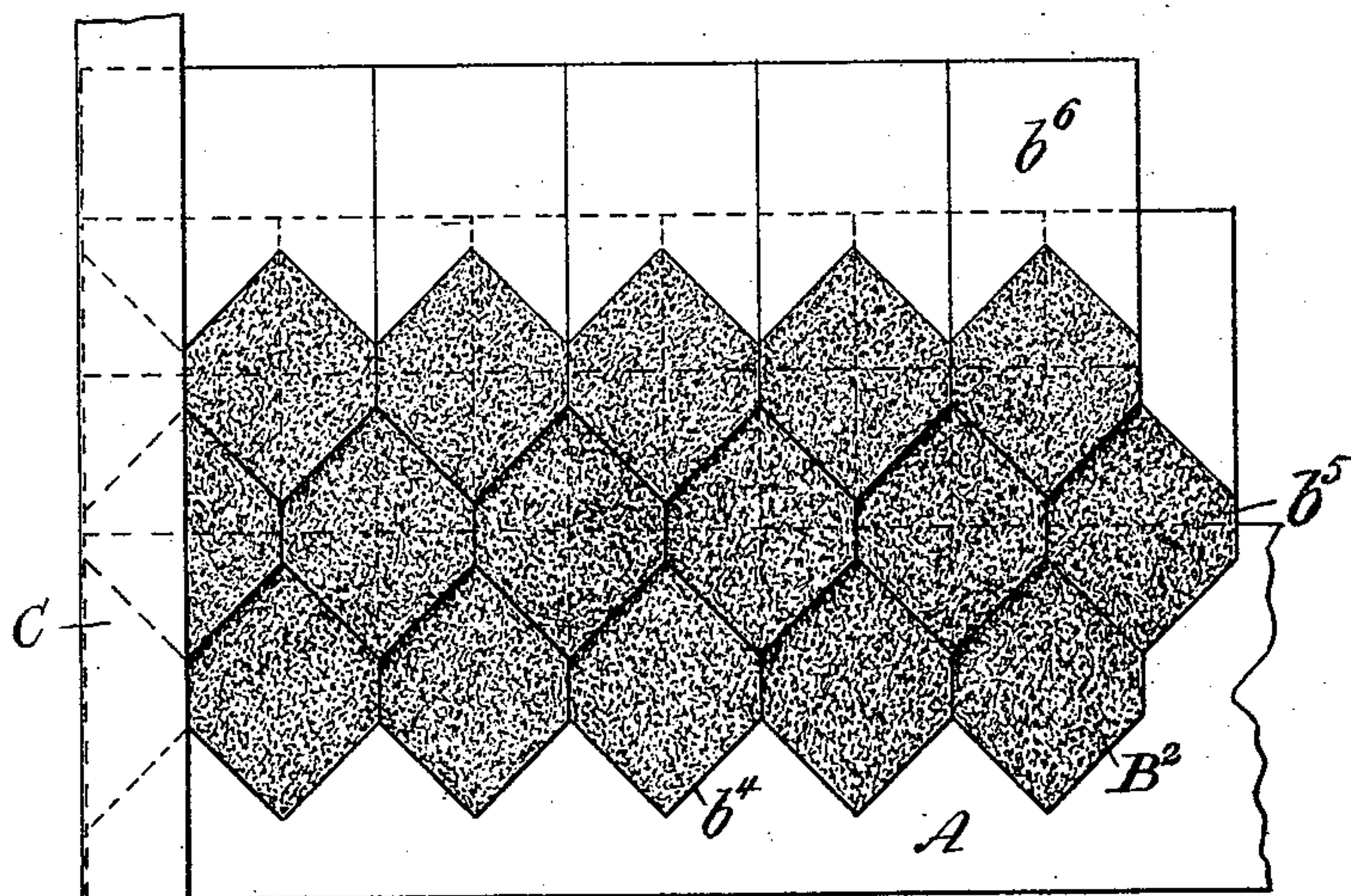


Fig. 2.



Witnesses:
Thomas M. Smith.
Richard C. Maxwell

Inventor:
Hermann Bormann,
by J. Walter Douglas,
Att'y.

UNITED STATES PATENT OFFICE.

HERMANN BORMANN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
J. WALTER DOUGLASS, OF SAME PLACE.

SHINGLE.

SPECIFICATION forming part of Letters Patent No. 455,272, dated June 30, 1891.

Application filed November 13, 1890. Serial No. 371,273. (Specimens.)

To all whom it may concern:

Be it known that I, HERMANN BORMANN, a subject of the Emperor of Germany, but now residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Shingles, of which the following is a specification.

My present invention relates to single and multiple ply surface coated fabric shingles having one or more plain-surfaced or uncoated marginal sides or ends.

The principal objects of my present invention are, first, to provide an inexpensive and acceptable substitute for wooden shingles and for such costly metallic and composition tiles as have hitherto been employed for covering or sheathing roofs and similar surfaces, and, second, to provide surface-coated single or multiple ply fabric shingles having one or more uncoated or plain-surfaced marginal sides or ends and arranged so that the shingles may be laid upon a roof or surface with the coated portions of one or more of them superposed upon or lapped over the uncoated marginal portions of adjacent shingles and then nailed or otherwise secured to place, thus forming a perfect union between all the shingles; and, moreover, by laying the several surface-coated marginal-edged shingles in the manner above described a perfectly water-tight, continuous, and durable surface or roof presenting an attractive and tile-like appearance is obtained.

The invention consists of a single or multiple ply fabric shingle having weather-exposed portions coated with suitable material and having other portions plain-surfaced or uncoated.

The invention further consists of a single or multiple ply fabric shingle having weather-exposed portions coated with suitable material and having a plain-surfaced or uncoated marginal edge upon adjacent sides thereof; and

The invention further consists of the article of manufacture such as hereinafter described, and particularly pointed out in the claims.

The nature and characteristic features of the invention will be more fully understood

from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a top or plan view of the portion of a roof or other surface sheathed or covered with fabric-shingles embodying my invention, and Fig. 2 is a similar view of a portion of a roof or other surface sheathed or covered with fabric-shingles embodying a modified form of the invention.

In the drawings, A represents a portion of a strip of impervious material nailed or otherwise attached to the roof and extending beneath the lower course of shingles B. C represents a strip of similar material superposed upon the shingles and attached to the roof near the gable thereof.

Referring now to Fig. 1, B are shingles, in general of rectangular form, composed of impervious material, as tar-paper. The weather-exposed surfaces of the shingles B are coated with water-proof material, as at *b*, or with water-proof adhesive material and pulverized or comminuted stone or analogous material, as at *B*², in order to render the same durable and impervious to water. Moreover, these shingles B are provided with plain-surfaced or uncoated marginal edges at the adjacent sides *b*² and *b*³ thereof. In use a course B of these shingles is laid upon the strip of impervious material A in such manner that the point of the coated portion of each shingle extends toward the eaves and the point of the uncoated portion of each shingle extends toward the hip or peak of the roof. A second course of shingles B' is then laid upon the roof in such manner that the coated portions thereof lap over onto the uncoated portions of the first course of shingles B, and so on in regular succession, whereby the coated portions of the several rows of shingles abut and form a substantially water-tight and continuous surface. The several courses of shingles may be secured to place upon the roof or other surface by inserting nails through the coated portion of each of the shingles comprising the row B' and through the uncoated marginal portions of each of the shingles comprising the row of shingles B underlying the first-mentioned row of shingles, or in any other convenient manner.

The construction and mode of application of the modified form of shingles illustrated in Fig. 2 are identical with the construction and mode of application of those illustrated in Fig. 1, with the following exceptions: The shingles B² are of generally oblong form and are provided with triangular extensions b⁴, and the weather-exposed portions of the shingles are coated in the form of hexagonal figures b⁵, having two of their sides coincident with the sides of the triangular extensions b⁴. Moreover, the uncoated marginal adjacent sides b² and b³ are dispensed with and the shingles are provided with uncoated ends b⁶. In use these shingles are laid upon the roof or other surface with the coated portions b⁵ of the shingles composing one course overlapping a part of the uncoated ends b⁶ of two shingles comprising the next course, and so on in regular succession, as will be readily understood by referring to Fig. 2.

In order that the distinguishing and characteristic features of the invention may be more fully understood a brief description of one method of making shingles embodying the same will now be given.

The face of a sheet of a single or multiple ply fabric, as tar-paper or felt, is coated with an adhesive water-proof substance or material, as pitch in a heated condition, in squares, hexagons, or other preferred forms, either by means of a positively-driven sectional or recessed coating-roll or in any other convenient manner, and while the fabric is maintained in a heated condition the upper surface thereof is coated with pulverized or comminuted stone or analogous material, which of course becomes embedded in or attached to the adhesive portions and rests loosely upon the uncoated spaces between them. The

superfluous pulverized or comminuted stone or analogous material is then permitted to fall from the sheet by gravity, or is otherwise removed from the uncoated portions thereof. The fabric is then cut longitudinally and between the coated portions thereof into strips, and these strips are cut transversely and intermittently into shingles. If preferred, the coating of pulverized or comminuted stone or analogous material may be omitted; but good results have been attained in practice by the employment of shingles having a coating of pulverized or comminuted stone or analogous material, and therefore preference is given thereto.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described single or multiple ply shingle provided with a face having the weather-exposed portion thereof coated with a water-proof substance and pulverized or comminuted material and other portions thereof uncoated, substantially as and for the purposes set forth.

2. The herein-described single or multiple ply shingle provided with a smooth back and sides and a face having the weather-exposed portion coated with an adhesive substance and comminuted stone and having uncoated marginal edges adjacent to the weather-exposed portions of the face thereof, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

HERMANN BORMANN.

Witnesses:

RICHARD C. MAXWELL,
THOMAS M. SMITH.