H. H. ROBERTSON.

SHINGLE.

APPLICATION FILED MAR. 12, 1918.

1,358,113. **Patented Nov. 9, 1920.**

Fig. 1.

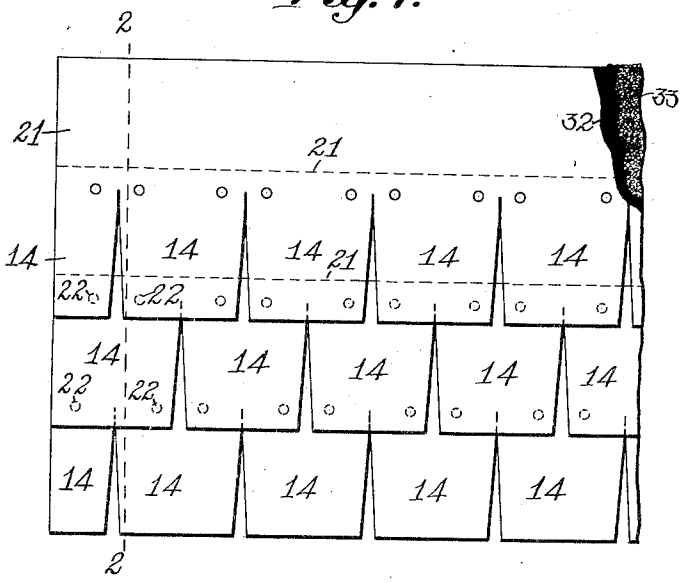


Fig. 2.

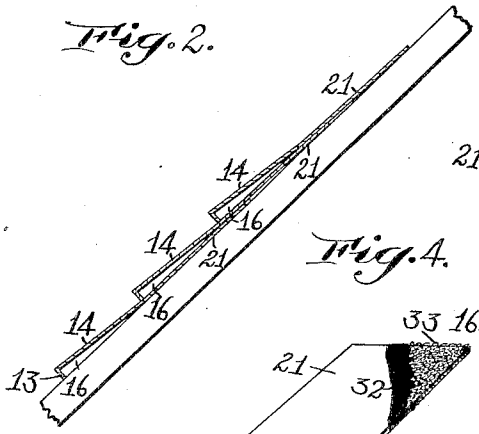


Fig. 3.

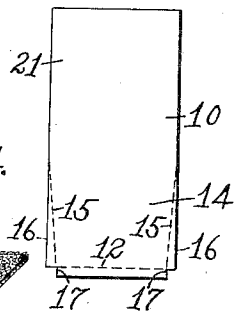


Fig. 5.

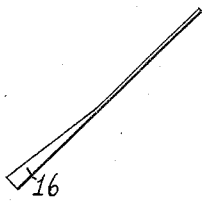


Fig. 4.

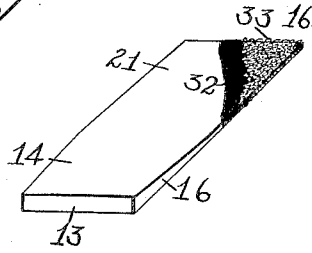
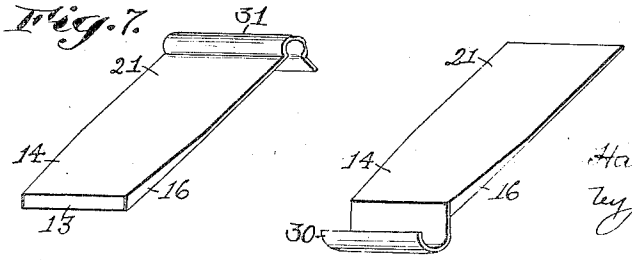


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

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SHINGLE.

1,358,113. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed March 12, 1918. Serial No. 222,017.

To all whom it may concern:

Be it known that I, HAROLD H. ROBERTSON, a subject of the King of Great Britain, but now residing in Sewickley, in the county of Allegheny and State of Pennsylvania, have invented an Improvement in Shingles, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to a novel construction of building material herein shown as embodied in a shingle. The invention has for its object to provide a shingle, clapboard or the like with a relatively thin fore part and a relatively thick hollow butt or rear part, whose top wall is of substantially the same thickness as said fore part, whereby said shingles or the like may be made of metal, fiber board or like material in sheet form, and yet have the general appearance and functions of the ordinary wood shingles.

To this end, the shingle is provided with a body portion of substantially uniform thickness throughout its length, and said body portion is provided at its rear part with an end flange and with tapering side flanges integral with said body portion but separate from each other and capable of being folded or bent without stretching or injuriously affecting said body portion, said side flanges extending from the end flange toward the front end of the shingle and terminate at a point between the front and rear ends of the body portion, preferably about two-fifths of the length of the body portion.

The shingles may be made as individual shingles or they may be made as a plurality of connected shingles having a common fore part and individual butt portions disconnected from one another at their rear ends, and forming a strip shingle, which may be made from a sheet with a minimum waste or loss of material, as will be described. The shingles which are to constitute the top course of the roof may be provided with an ornamental ridge cap, and those which are to form the lower course may be provided with a gutter as will be described.

These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 represents in front elevation a plurality of strip shingles embodying this invention.

Fig. 2, a section of Fig. 1 on line 2—2.

Fig. 3, a plan of a blank for a single shingle.

Fig. 4, a perspective showing an individual shingle formed from the blank shown in Fig. 3.

Fig. 5, a side elevation of the shingle shown in Fig. 4.

Fig. 6, a perspective showing a shingle provided with a gutter, and

Fig. 7, a perspective showing a shingle provided with a ridge cap.

Referring to the drawing and especially Fig. 3, 10 represents a blank for a single shingle, and for sake of clearness, said blank may be considered as of sheet metal. The blank 10 is shown in Fig. 3 as oblong in shape and in accordance with this invention has its rear end for a depth indicated by the dotted line 12 turned substantially at right angles to form an end flange 13 shown in full in Figs. 2 and 4, and said blank has the sides of its rear portion 14 bent or turned for a depth indicated by the inclined dotted lines 15 to form tapering side flanges 16, only one of which is shown in Figs. 4 and 5.

In making the shingle, the rear end of the blank 10 may have substantially rectangular portions cut away to leave notches 17, so that when the rear end of the blank is turned to form the flange 13, the latter is brought substantially into alinement with the ends of the side flanges 16, so that when the side flanges 16 are turned on the inclined lines 15 the said side flanges may abut against the ends of the end flange 13. In practice, the flanges 13, 16 may be formed by means of a suitable die press without stretching or otherwise injuring the body portion of the shingle. The individual shingles shown in Figs. 4 and 5 may be applied to the roof or side of a building in the same manner that ordinary wooden shingles (not shown) are now applied, namely with the butts of an upper row or course of shingles covering the fore parts 21 of the shingles in the next lower row or course, and thereby protecting from the weather the nails or other fastening devices 22 shown in Fig. 1 and employed to fasten the lower course of shingles.

The end flange 13 and the side flanges

16 coöperate with the rear portion of the shingle blank to form a hollow butt, and when the shingle is applied to the roof or side of the building, the inclined lower edges of the side flanges contact with the roof or side boards of the building and are brought into substantially the same plane with the fore part 21 of the shingle, which fore part is sufficiently flexible to permit this to be done, and as a result the rear part 14 of the shingle blank is inclined with relation to the building, and the shingles when laid have the desired general appearance and function of the ordinary wood shingles.

If desired a single strip or sheet of metal or other material may be cut with a minimum waste at its lower edge and placed in a suitable press and bent after the manner described with relation to the individual shingle, to form a strip shingle comprising a plurality of butts 14 disconnected at their rear ends and a common fore part 21 to which the butts are attached as shown in Fig. 1.

By reference to Fig. 1, it will be seen that when the strip shingles are laid, the roof or side of the building has the appearance of a building covered with individual shingles, having substantially thick butts like ordinary wood shingles.

The shingles forming the lower course may if desired be provided with an end flange long enough to be turned up and form a gutter 30 as represented in Fig. 6, and the shingles forming the upper course may be provided with a ridge cap 31 as represented in Fig. 7.

The metal blanks from which the shingles are formed may and preferably will be of protected metal, such for instance as a metal blank provided with a covering or coating 32 of adhesive material such as bitumen or asphalt having a protective coating 33 of crushed slate, sand or other silicious material as the relation of the coatings 33, 32, to the metal sheet are not disturbed when the flanges are bent, owing to the latter being disconnected from each other before they are bent, or said metal blank may be of plain metal and provided with a coating of paint or otherwise protected and the metal of the body portion is not stretched and weakened by the formation of the flanges.

From the above description, it will be seen that a superior and inexpensive weather resisting shingle may be made from materials other than wood and yet have the appearance and functions of a wood shingle, and in addition satisfy the requirements for a fire resisting shingle.

To enable the construction of the shingle to be clearly shown, I have illustrated in Figs. 1 and 4 only a portion of the adhesive covering 32 and protective silicious coating 33.

By the term "shingle" as used in the claims, I desire to be understood as including clapboards and like parts of a building.

Claims.

1. A shingle comprising a body portion having downward projected tapering side flanges which extend from the rear of the body portion but partially the length thereof and form side walls of a rearwardly tapering hollow butt portion, and having a downward projected end flange forming the rear wall of said butt portion and having its lateral edges separated from said side flanges.

2. A shingle strip comprising a body portion provided with a plurality of rearwardly tapering disconnected tabs, each of said tabs having downward projected tapering side flanges forming side walls of a rearward tapering hollow butt portion, and having a downward projected end flange forming the rear wall of said butt portion and having its lateral edges separated from said side flanges.

In testimony whereof, I have signed my name to this specification.

HAROLD H. ROBERTSON.