Jan. 16, 1934. E. E. GILMER 1,943,597

PROCESSING SHINGLE SHAKE

Filed April 8, 1932

Fig. 1.

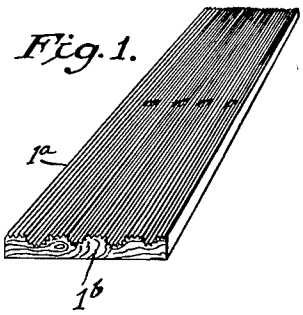


Fig. 4.

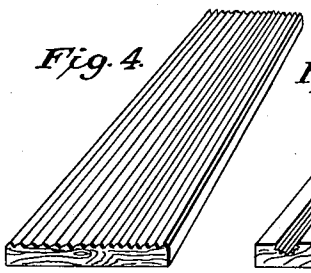


Fig. 5.

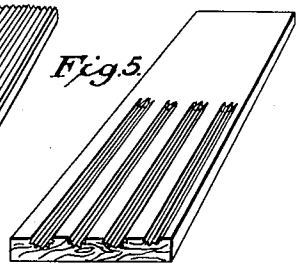


Fig. 2.

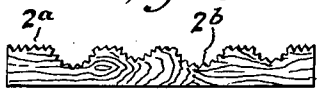


Fig. 3.

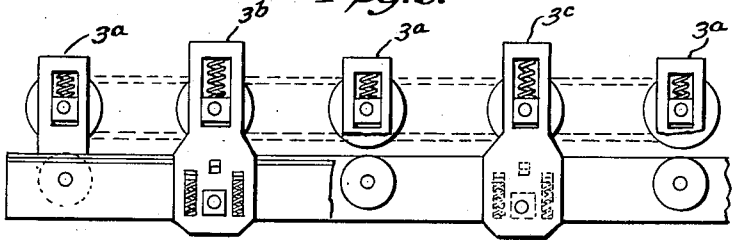


Fig. 6.

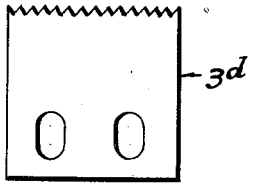
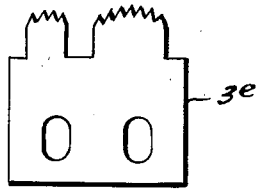


Fig. 7.



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UNITED STATES PATENT OFFICE

1,943,597

PROCESSING SHINGLE SHAKE

Ernest E. Gilmer, Portland, Oreg.

Application April 8, 1932. Serial No. 604,033

5 Claims. (Cl. 144—309)

This invention relates to improvements in shingles and the method of making the same. More particularly, the invention relates to wooden, sawed shingles having many of the characteristics of rough split shingles known as "hand split shakes."

The principal object of the invention is to provide a tapered sawed shingle having a plain flat under or back side and a surface or top side having planed ribs or ridges closely resembling the surface of a "hand split shake", but which, unlike the "hand split shake" insures a more even thickness of butt or thick end providing a more weather tight finish when the shingles are laid on roof or sidewall.

It is a well known fact that many attempts have been made to produce an imitation of the old fashioned "hand split shake" and to provide for the usual characteristics of the split shake without the attendant disadvantages, but no method has heretofore been devised which provides the small grooves and ridges extending longitudinally over the thin surfaces of the shingle and deeper and heavier groovings in the thicker portion of the shingle, thus simulating more nearly the "hand split shake" it being a well known fact that in splitting a piece of wood to make a shake the lower part presents heavier, more irregular groovings than that part where the blade starts the split.

In accomplishing these and other objects of the invention, I propose to use a machine having two or more separate cutting heads or a multiple of machines to accomplish the desired result. In the first machine or first part of a machine having two or more cutting heads, the sawed shingle is passed over, under or against the revolving cutting blades in such manner as will provide a series of grooves and ridges, either uniform or irregular, extending longitudinally over the entire surface or such portion of the shingle as may be desired. After these small grooves and ridges have been made the shingle so "processed" is then passed over, under or against the second revolving cutting tool or blades having serrated or toothed edges which have been so adjusted as to begin to cut into the face of said processed shingles at a predetermined point toward the thick or butt end. In this manner the "shake" is provided with fine or small grooves and ridges over the surface of the thin portion of the shingle and a combination of fine and heavier deeper grooves over the thicker portion, the last named cutters having the serrated edges eliminating the "bald" spots as would be present if the heavier and deeper grooves were cut with a plain edged tool.

I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawing, wherein—

Fig. 1 is a perspective view of a shingle embodied in the present invention.

Fig. 2 is an end view of the same.

Fig. 3 is a type of machine employed in forming or processing a shingle of type and character embodied in the present invention.

Fig. 4 is a perspective view of a shingle blank showing primary grooving.

Fig. 5 is a perspective view of a shingle blank showing only the secondary grooving.

Fig. 6 is a view of the cutter blade used in making the primary grooving.

Fig. 7 is a view of the cutter blade used in forming the secondary grooving.

Referring more in detail to the drawing—

Fig. 1 illustrates a shingle formed in accordance with the present invention, in which the full width of top or face surface which is exposed to the weather is formed with a plurality of contiguous parallel longitudinally extending grooves and ridges 1*a*, which may extend either the full length or only a portion of the length of the shingle over which is made a second cut to provide grooves 1*b* of irregular width and irregular depth, such width being any width as may be desired to provide the split grain effect, and the depth to be that as may be desired to produce an uneven cross section or butt view.

The shingle is first sawed in usual manner of present plain commercial shingles and is then passed into a machine preferably of type shown in my co-pending application, Serial Number 569,644 filed August 19, 1931, comprising blank feeding means 3*a* and primary grooving cutters 3*b* for forming the small grooves, to which machine is added an additional cutting unit comprising secondary grooving cutters 3*c* for forming the above referred to secondary or large grooves, each unit being controlled so that the depth of cut in the shingle may be regulated as may also the starting point of either or both cuts in shingle.

Having thus described my invention, what I claim as new therein and desire to secure Letters Patent, is:

1. The process of manufacturing imitation shingle shakes by subjecting the weather surface of a planed shingle to two separate grooving processes for forming grooves of different depths and different widths of ribs between said grooves.

2. The process of converting commercial shingles into imitation hand split shakes by subjecting the weather surface of a planed shingle blank to two separate batteries of revolving grooving cutting tools to produce two separate types of groovings, each of different depth and width and different angles of cutting from plane surface of shingle.

3. The process of manufacturing imitation shingle shakes by subjecting the weather surface of a planed shingle blank to two cutting processes whereby first or primary groovings produced by one cutting extend the full width and length of shingle blank and the secondary groovings produced by the second cutting extend deeper into the shingle shake than first groovings, said secondary groovings beginning intermediate the blank and being spaced at irregular intervals in the width of the shingle shake with the first or primary groovings extending between such secondary groovings.

4. The process of manufacturing an imitation shake shingle which consists in grooving the weather surface of a shingle blank in two separate cutting operations to form the combination of grooves, the first operation consisting in subjecting the weather surface of a planed shingle against a revolving cutting tool producing over the length and the entire width of the shingle blank a series of parallel longitudinally extending grooves of irregular depth and irregular width, and then by grooving the same surface with a second series of grooves by means of a revolving cutting tool having blades of desired shape and serrated cutting edges, producing wider and deeper grooves in the thicker portion only of the shingle, said second or heavier grooves being separated and the grooves of first or primary operation extending to the butt or thick end of the shingle between the said deeper secondary grooves.

5. The method of processing commercial shingles to provide the weather surface with grooves of varying depth and width by passing the shingle blank against two separate sets of grooving tools, each set of grooving tools being so controlled that the second grooving begins at same depth of cut as the first grooving and in progress of cutting deeper grooves are formed in only the thicker portion of the shingle blank.

ERNEST E. GILMER.