

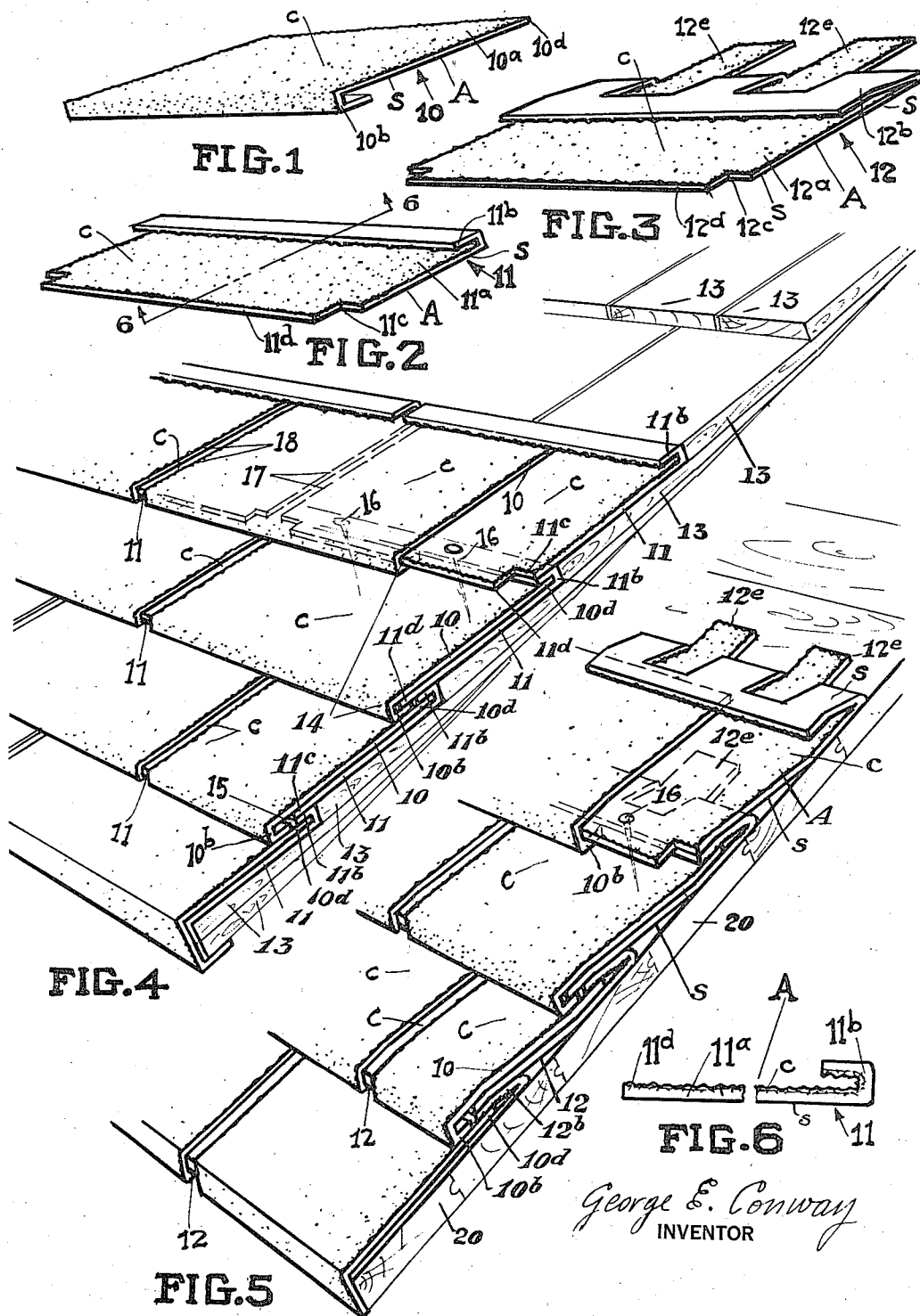
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SHINGLE AND SHINGLE CONSTRUCTION

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SHINGLE AND SHINGLE CONSTRUCTION.

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This invention relates to shingles and shingle outer wall and roof constructions.

are shown various possible illustrative embodiments of this invention—

One object of the invention is to provide under shingles of novel construction which may be combined with outer shingles having hook-shaped butts to form a weather-proof, durable outer wall or roof structure, said improved shingle structure being adapted to be incorporated either in new construction or applied over old or worn out ridged outer surfaces such as wood shingled roofs, and to provide an attractive surface, marked by heavy shadow lines, substantial in appearance and desirable for its decorative value.

Fig. 1 is a perspective view of a shingle having a hook-shaped butt adapted to form the outer surface structure of a shingle construction, embodying the invention such as shown in Figs. 4 and 5.

Another object of the invention is to provide an improved shingle structure which may be constructed of any suitable sheet roofing materials, such as asbestos or wood-fibre combined with pitch, tar, rubber compounds or the like, and of sheet metals, but which is particularly adapted to be constructed of tarred and pebble coated sheet roofing material of any well understood manufacture.

Figs. 2 and 3 are perspective views of improved under or anchoring shingles embodying the invention.

A further object of the invention is to provide an improved shingle construction having inner shingles for anchoring rows of outer shingles which shall permit expansion and contraction without causing distortion of the outer surface structure when subjected to variations in temperatures, yet be weather-proof so as to shed all moisture and which shall secure the shingles against displacement or tearing by most severe wind forces.

Fig. 4 is a perspective view of a fragmentary portion of an improved shingle construction embodying the invention adapted to cover old or worn ridged surfaces such as a wood shingled roof, using the improved inner shingle shown in Fig. 2.

A still further object of the invention is the provision of an improved under shingle and shingle construction of simple form, which shall be cheap to manufacture, easy to apply, and practical and efficient to a high degree.

Fig. 5 is a perspective view similar to Fig. 4 showing the invention applied to cover a flat sheathed surface, using the improved inner shingle shown on Fig. 3; and

Other objects of the invention will in part be obvious and in part hereinafter pointed out.

Fig. 6 is an enlarged cross-sectional view taken on line 6—6 in Fig. 2. Referring in detail to the drawing, 10 denotes an outer shingle comprising a flat body 10^a having a hook-shaped edge portion or butt 10^b and formed of any suitable sheet roofing material. As here shown said material may be made of a composition of asbestos or wood-fibre and tar, pitch, rubber or the like, forming a stiff sheet A having a relatively smooth under-surface S and finished with a pebbled or sanded outer surface coating C which adds to fire resisting properties of the shingle.

Certain features herein shown and described relate to the subject matter contained in my Patents Nos. 1,575,974 and 1,661,562, granted Mar. 9, 1926, and Mar. 6, 1928, respectively of which the present application is a continuation in part.

With the above exceptions, the invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of the invention will be indicated in the following claims.

11 and 12 denote two forms of under, anchoring or inner shingles embodying the invention. Said shingles 11 and 12 are of the same or similar composition as the outer shingle 10 and have flat body portions 11^a and 12^a, respectively, but are formed with hook-shaped edge portions 11^b and 12^b, respectively, bent in the reverse direction relative to its pebbled coating C, that is, the outer shingle 10 has its side with the pebbled coating C outwardly curved to extend about the outer side of the hook-shaped butt 10^b whereas the shingles 11 and 12 have their smooth surfaces S of the sheets A outwardly curved to extend about the outer sides of the hook-shaped portions 11^b and 12^b and the pebbled coatings C extending along the inner sides of said hook-shaped edge portions as is clearly seen from Figs. 1, 2, 3 and 6. Said shingles 11 and 12 may have their corners notched as at 11^c and 12^c, respectively, to facilitate aligning the shingles.

In the accompanying drawing, in which

gles in straight rows in the manner shown in Figs. 4 and 5.

Referring to Fig. 4, the improved shingle construction is shown applied over a ridge surface, as, for example, a roof formed of overlapping wood shingles 13. The shingles 10 and 11 may be interlockingly mounted in horizontal overlapping rows to cover said roof without requiring the use of filler or spacing lathes thus saving material and labor. In applying the improved shingle construction, the hook-shaped butts 10^b of each row of outer shingles 10 are engaged with aligned flat edge portions 11^d of the underlying row of anchoring shingles 11, said flat edge portion being positioned to overhang beyond the hook-shaped portions 11^b of the lower adjacent row anchoring shingles 11 for anchoring the shingle butts 10^b, as is clearly shown at 14. Thus the butt ends of the outer shingles are secured to withstand the destructive effects of high velocity air currents to which the shingle structure may be exposed. The flat edge portions 10^d of each row of outer shingles are inserted into the hook-shaped edge portions 11^b of the underlying row of anchoring shingles 11 as at 15 and 14, so that said edge portions 11^b with the portions 10^d inserted therein form an upstanding ledge for supporting overlying row of flat edge portions 11^c and 11^d in their overhanging position. The amount of overhanging of the portion 11^d is substantially equivalent to or slightly greater than the interior depth of the turned-under or hook portion 10^b. A suitable fastening means, such as nails 16 are driven through the superimposed layers formed of the portions 11^b, 11^c and 10^d to secure the rows of shingles in position, said nails being covered and protected by the outer shingles 10. As shown in Fig. 4 the vertical adjoining seams 17 of the under shingles 11 are staggered with respect to the corresponding seams 18 of the outer shingles 10 to prevent seepage of moisture between the shingle layers. If desired the seams 18 may be left open for adding to the decorative appearance of the shingle construction without impairing the thorough weather and moisture-proof properties of the construction since the pebbled coating C of the inner shingles 11 are exposed at the seams 18, said exposed shingle portion forming an efficient drain for shedding the moisture as is clearly seen from Fig. 4. It should be noted that the hooked butt of shingle 10 although secured against displacement by the wind, is free to slide in or out, so the outer shingles 10 can expand laterally and longitudinally and are not subject to bulging or other distortions when contracting or expanding under the influence of changes in temperature.

For applying the improved shingle construction embodying the invention to flat

surfaced supporting structures such as sheathing 20, the form of under shingle 12 embodying the invention, shown in Fig. 3, may be used in combination with the outer shingle 10 as shown in Fig. 5. The shingle 12 like shingle 11 as described above comprises the body 12 having the hook-shaped edge portion 12^b and the flat edge portion 12^d opposite the portion 12^b. Said shingle 12 is essentially the same in construction and finish as shingle 11 described above with the exception that the hook-shaped edge portion 12^b is made wider so that parts thereof may be cut to form space tongues 12^c, said tongues being laid flat to serve as fillers underlying row of shingles to prevent the shingle structure from having a sagging appearance.

The notched corners 12^c provided in the flat edge portion 12^d of the shingle 12 facilitate aligning the overlapping row of under shingles 12 with the underlying hooked edge portion 12^b of the adjoining row of shingles 12 as is clearly shown in Fig. 5.

It will thus be seen that there is provided a shingle and shingled construction in which the several objects of this invention are achieved and which meet the condition of practical use to give unusual satisfaction.

As many other possible embodiments might be made to the above invention and as various changes might be made in the embodiment above set forth, it is to be understood that all matters herein set forth or shown in the accompanying drawing are to be interpreted as illustrated and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters-Patent:

1. In a shingle construction, the combination of superimposed outer and under shingles having interengaging parts for anchoring the butt edges of the outer shingles to the under shingles and for securing the edge portions of the outer shingles opposite said butt edges to the under shingles.

2. In a shingle construction the combination of superimposed outer and under shingles having interengaging parts for anchoring the butt edges of the outer shingles to the under shingles, and other interengaging parts for securing the edge portions of the outer shingles opposite said butt edges to the under shingles.

3. In a shingle construction the combination of superimposed outer and under shingles having interengaging parts for anchoring the butt edges of the outer shingles to the under shingles, and other interengaging parts for securing the edge portions of the outer shingles opposite said butt edges to the under shingles, and means for fastening said last mentioned engaging parts to a supporting structure.

4. In a shingle construction, the combination of overlying outer and under shingles, interlocking means integrally formed with the outer and under shingles for anchoring the butt edges of said outer shingles to the under shingles, and other interlocking means integrally formed with said shingles for securing portions of shingles spaced from said butt edges together.

5. In a shingle construction, the combination of overlying outer and under shingles, interlocking means integrally formed with the outer and under shingles for anchoring the butt edges of said outer shingles to the under shingles, other interlocking means integrally formed with said shingles for securing portions of shingles spaced from said butt edges together, and means passing through the said secured portions for fastening the shingles to a supporting structure.

6. An under shingle of the character described comprising a flat body having a surface finished for exposure to the weather, a hook-shaped portion formed to extend along one edge of said body to upstand from said finished surface adapted to engage with a superimposed outer shingle and to serve as a supporting ledge for an overhanging edge portion of an overlying under shingle.

7. In a shingle construction, an under shingle of the character described, comprising a flat body having a hook-shaped portion extending along one edge thereof for engaging with an outer shingle of said construction and serving as a supporting ledge for an overhanging edge portion of an overlying under shingle.

8. In a shingle construction, an under shingle of the character described, comprising a flat body having a hook-shaped portion extending along one edge thereof for engaging with an outer shingle of said construction and serving as a supporting ledge for an overhanging edge portion of an overlying under shingle, and means on said body to facilitate aligning the under shingle.

9. An under shingle of the character described comprising a flat body having a surface finished for exposure to the weather, a hook-shaped portion formed to extend along one edge of said body to upstand from said finished surface, adapted to engage with a superimposed outer shingle and to serve as a supporting ledge for an overhanging edge portion of an overlying under shingle, said body having notches to facilitate aligning the under shingles in overlapping rows.

10. In a shingle construction, an under shingle of the character described, comprising a flat body having a hook-shaped portion extending along one edge thereof for engaging with an outer shingle of said construction and serving as a supporting ledge for an overhanging edge portion of an over-

lying under shingle, and a filler formed from said hook-shaped portion extending outwardly therefrom as and for the purpose described and specified.

11. An under shingle of the character described comprising a flat body having a surface finished for exposure to the weather, a hook-shaped portion formed to extend along the edge of said body to upstand from said finished surface adapted to engage with a superimposed outer shingle and to serve as a supporting ledge for an overhanging edge portion of an overlying under shingle, said hook-shaped portion being cut to form a tongue extending outwardly therefrom for serving as a filler for overlying shingles.

12. In a shingle construction, the combination of a plurality of superimposed outer and under shingles laid in a row, each shingle having a flat body with a hook-shaped edge the hook-shaped edges of the under shingles engaging with flat edge portions of the outer shingles and the hook-shaped edges of the outer shingles engaging with flat portions of the under shingles, and a second row of superimposed outer and under shingles laid in a row having the flat portions of the under shingles of the second row overhangingly overlapping the hook-shaped edges of the under shingles in said first row.

13. In a shingle construction, the combination of a plurality of superimposed outer and under shingles laid in a row, each shingle having a flat body with a hook-shaped edge, the hook-shaped edges of the under shingles engaging with flat edge portions of the outer shingles and the hook-shaped edges of the outer shingles engaging with flat portions of the under shingles, and a second row of superimposed outer and under shingles of the second row overhangingly overlapping the hook-shaped edges of the under shingles in said first row, and tongue fillers extending from the hook-shaped edges of said first row to underlie the second row of shingles.

14. In a shingle construction, the combination of a plurality of superimposed under and outer shingles laid in a row, each shingle having a wearproof coating and formed with a hook-shaped edge, the hook-shaped edges of the under shingles engaging with flat edge portions of the outer shingles and the hook-shaped edges of the outer shingles engaging with flat portions of the under shingles, the hook-shaped edges on the under shingles offstanding from the coated side thereof and the hook-shaped edge on the outer shingles offstanding from the uncoated side to present said coatings on each shingle for exposure to the weather.

In testimony whereof I affix my signature.

GEORGE E. CONWAY.