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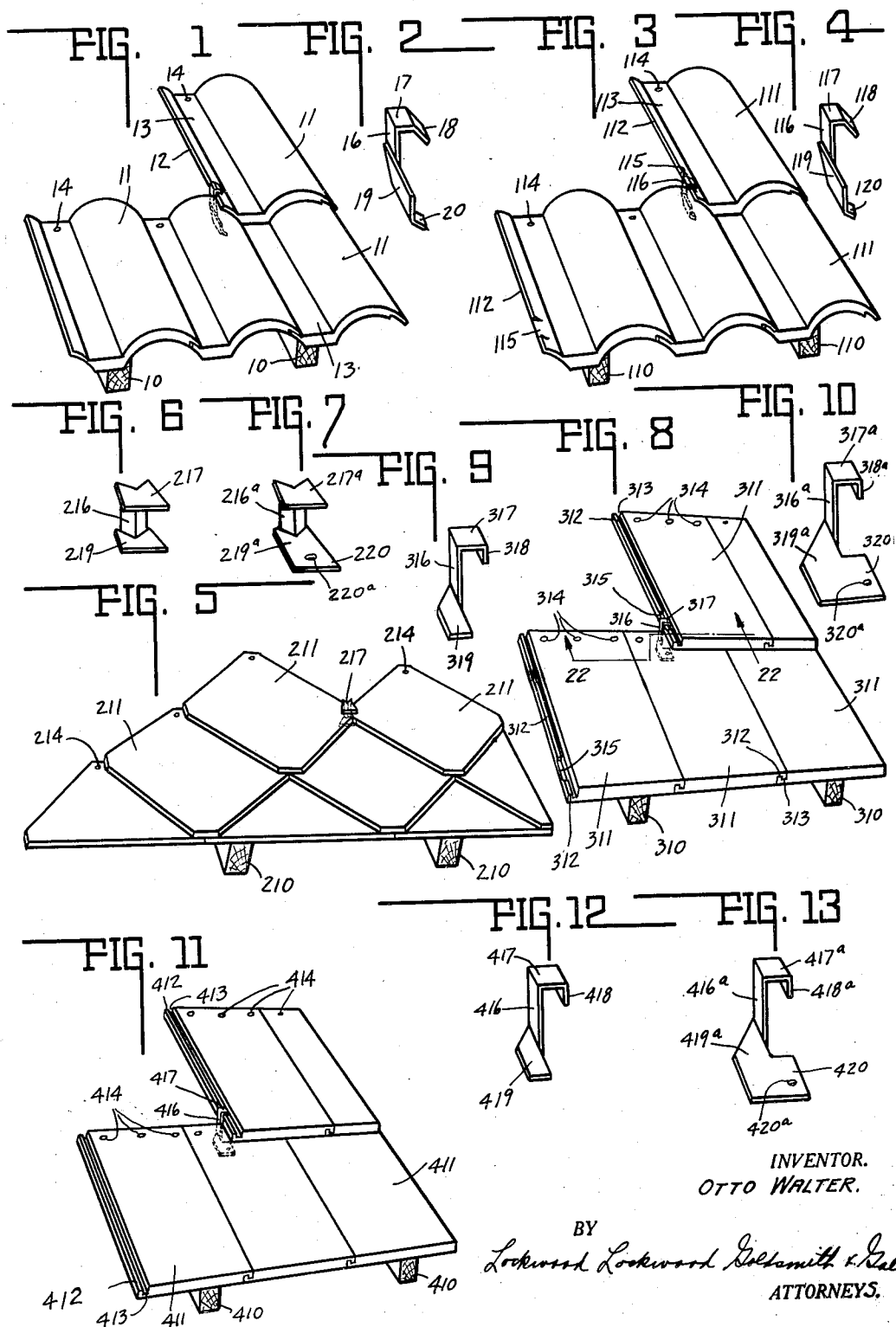
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TILE ANCHORING CLIP

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1,975,304

TILE ANCHORING CLIP

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2 Claims. (Cl. 108—10)

This invention relates to the anchoring of the lower end of tiles, shingles and other unit roofing and siding material suitable for exterior surfacing.

5 The chief object of this invention is to suitably anchor the lower free ends of exterior surfacing elements, in the form of tiles, shingles and the like, applied as siding or roofing to prevent the lifting of the tile by high winds, and the like, and the subsequent detachment or breakage thereof by reason of said lifting.

10 One feature of the invention consists in the anchorage of such surfacing units by means of a clip construction which does not extend through the tile anchored thereby and which may or may not require nailing, or the like, for anchorage purposes and which has the further advantage that it may be readily applied and when once applied becomes an integral part of the unitary surface construction without additional nailing and which is held in position by the tile and is relatively cheap to manufacture.

15 In the following description and claims, the terminology "tile" is used in a generic sense and is intended to include shingles and other surfacing units, as well as so-called vitrified tiles or tiles of a ceramic or molded construction.

20 A specific feature of the invention consists in the form of tile employed with the clip and the combination thereof.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:—

25 In the drawings, Fig. 1 is a perspective view of four adjacent and associated Spanish tiles with the hold-down clip applied thereto.

Fig. 2 is a perspective view of the hold-down clip.

30 Fig. 3 is a view similar to Fig. 1 and of a similar tile construction, but each tile is provided with a notch for nesting the hold-down clip.

Fig. 4 is a perspective view of the clip illustrated in Fig. 3.

35 Fig. 5 is a perspective view of a diagonal tile application with a hold-down clip associated therewith.

Fig. 6 is a perspective view of the hold-down clip employed in the construction shown in Fig. 5.

40 Fig. 7 is a view similar to the view shown in Fig. 6 and of a slightly modified form of the invention in which a portion of the clip may be associated with a portion of the lower tile anchorage.

45 Fig. 8 is a perspective view of an English tile construction, showing the same both grooved and

notched and with the hold-down clip applied thereto.

Fig. 9 is a perspective view of said hold-down clip.

Fig. 10 is a similar view of a modified form of hold-down clip, modified in the manner in which the clip shown in Fig. 7 is modified from that shown in Fig. 6.

Fig. 11 is a perspective view of English tiles and with the hold-down clip applied thereto.

Fig. 12 is a perspective view of the clip employed with the tile shown in Fig. 11.

Fig. 13 is a similar view of another modified form of clip similar to Fig. 12 but modified in the manner in which the clips shown in Figs. 7 and 10 are modified with respect to the clips shown in Figs. 6 and 9 respectively.

Fig. 14 is a perspective view of the so-called French head-lock type tile construction, with the hold-down clip applied thereto.

Fig. 15 is a perspective view of this type of clip.

Fig. 16 is a perspective view of the French head-lock type of tile construction, suitably notched to receive the hold-down clip.

Fig. 17 is a perspective view of the clip associated therewith.

Fig. 18 is a perspective view of a plain French tile construction.

Fig. 19 is a perspective view of the clip associated with the aforesaid tile construction and illustrated therein.

Fig. 20 is a perspective view of the French tile construction suitably notched.

Fig. 21 is a perspective view of the hold-down clip associated with the French tile and receivable by the notch.

Fig. 22 is a transverse sectional view taken approximately on the line 22—22 in Fig. 8, and in the direction of the arrows and includes the clip shown in Fig. 10.

In the drawings, there is illustrated in Figs. 1 and 2 the hold-down clip associated with a Spanish tile construction. In said figures, 10 indicates the tile supporting members, 11 the tile having the longitudinal edge 12 and the groove portion 13 formed therein. The tiles, of course, are complementarily formed for interlocking relation and in the present form of the invention, the tiles are not arranged in broken joint formation but are arranged in longitudinal alignment, with the lower end of the upper tile superposed on the upper end of the lower tile.

The clip construction includes a body portion 16 which terminates in a lateral or head portion 17 and an angularly and downwardly directed

end 18. Extending laterally of the body portion 16 is an angular base portion 19 and 20. Portion 19 and 20 is positioned beneath the tile 11 and herein beneath the adjacent tile of the lower series. Upward movement, therefore, of the clip is prevented. The body portion 16 lies between two adjacent sides of two adjacent tiles and also bears against the upper edge of the lower tile which lies above the base portion. The head and end portion overlie the lateral edge and groove 13 respectively and with the end seatable in the groove. These tiles are suitably anchored, as indicated at 14, at the upper ends. The lower ends are free except for the hold-down clip construction.

In Figs. 3 and 4, there is illustrated a modified form of the construction and in these figures, similar parts are indicated by numerals of the one hundred series, thus 110 indicates the support and 111 the tile having the lateral edge 112. The groove is 113 and the anchorage is 114. The clip includes the head portion 117, the end 118, the body portion 116 and the base 119—120. In this form of the invention, however, each tile is provided, at its longitudinal edge 112, with a transverse notch 115 and a more rigid locking is obtained by the use thereof. The clip cannot slip downward, because its forward edge of the body portion 116 will bear against the upper edge of the lower series of tiles and the nesting of the head portion 117 in the transverse notch 115 prevents movement of the clip relative to the upper tile to be anchored thereby. The end 118 seats in the groove 113 and bears against one wall thereof.

In Fig. 5, 210 indicates the support member, 211 the diagonal tile, the same being anchored through the upper end as at 214 and associated with said tiles is a hold-down clip which has the body portion 216, the head portion 217 and the base portion 219. The base portion 219 lies beneath the upper end of one of the lower tiles and at the abutting edges of two adjacent superposed upper tiles. The body portion 216 is so formed that it will readily pass between the opening formed by the registration of the three tiles, the two adjacent ones and the lower tile overlapped thereby. The head portion, 217 in this form of the invention, is adapted to overlie both adjacent upper tiles.

In Fig. 7, there is illustrated a modified form of the invention and in this form, similar parts are indicated as follows:—the body portion by numeral 216a, the head portion by numeral 217a and the base portion by numeral 219a. In this form of the invention, the base portion is elongated as at 220 and includes therein, an aperture 220a which is so arranged that the anchorage 214 of the lower tile will pass through the aperture 220a and thus rigidly anchor the hold-down clip in the anchorage of the lower tile. With this type of clip, the usual anchoring nail is passed through the upper end of the diagonal tile and then passed through the aperture 220a and then the tile is secured to the support surface, by driving home the nail 214, the portion 220 projecting beyond the portion 217a so access to the head of the nail may be had without destruction of or interference by said head 217a.

In Fig. 8, the flat or English type tile construction is illustrated, and herein tiles 311 are suitably supported upon the member 310 and are anchored to the supporting surface as at 314. Each tile includes the longitudinal edge 312 and the groove 313. In the present form of the in-

vention, the longitudinal edge has formed therein, the transverse notch 315. The clip is mounted in substantially the same manner as heretofore set forth with reference to the tile construction shown in Fig. 3. The body portion of the clip is indicated by the numeral 316, the head portion by the numeral 317, the depending end by the numeral 318 and the base portion by the numeral 319. The base portion 319 is positioned beneath the upper end of the lower tile 311. The body portion is positioned between two adjacent superposed tiles and the head portion 317 extends laterally through the notch 315 in the edge or tongue 312 and the end 318 of the clip seats in the groove 313.

A modified form of clip is illustrated in Fig. 10 in which 316a indicates the body portion, 317a the head portion, 318a the depending end, 319a the base portion which is laterally enlarged and elongated as at 320 and includes therein the aperture 320a. The extension 320 of the base and its aperture 320a is substantially similar to the extension 220 with its aperture 220a therein, illustrated in Fig. 7 and this form of hold-down clip is employed when it is desired to anchor fixedly said clip and in so doing the tile anchorage 314 in the form of a nail, or the like, is passed through the opening provided in said tile, then passed through the opening 320a and secured to the supporting surface. It will be noted that the portion 320 is out of registration with the head portion 317a so that operation upon the tile anchorage 314 will not be interfered with by the head portion.

In Fig. 11 there is illustrated substantially the same type tile construction as is shown in Fig. 8, except that in this instance the transverse notch 315, shown in Fig. 8, is not employed.

Fig. 12 illustrates the clip illustrated in Fig. 11 and corresponds to the clip shown in Fig. 9 employed with the structure shown in Fig. 8, while Fig. 13 illustrates the modified form of clip that might be employed with the tile shown in Fig. 11 in substantially the same manner that the clip shown in Fig. 10 might be employed in place of the clip shown in Fig. 9 with the tile structure shown in Fig. 8.

In said Figs. 11, 12 and 13, similar parts are indicated by numerals of the four hundred series.

In Fig. 14, there is illustrated the simple form of French head-lock tile construction and therein 510 indicates the support members, 511 the tiles each having the head-lock portion 509 and the longitudinal tongue or edge 512 and the longitudinal groove 513 suitably secured as at 514.

The clip illustrated in Fig. 15 includes the body portion 516, the head portion 517, the depending end 518 and the base portion 519. The application of this clip and its association with the two adjacent lower tiles and a superposed tile 511 is as follows: between the headlocks at 500 is a space that receives body 516 of the clip. The base 519 thereof underlies the lower tile while portion 517 overlies the outer tile.

In Fig. 16, a modified form of French head-lock tile construction is illustrated and this form merely differs from that illustrated in Fig. 14 by the addition of the transverse notch 615. Other similar parts are indicated by numerals of the six hundred series. The clip is illustrated in Fig. 17. In this form between the headlocks at 600 is a space that receives the body 616 of the clip. The mounting is the same as that specified for the clip shown in Fig. 14, except that portion 617 seats in the notch 615.

Fig. 18 illustrates a plain French tile and herein 710 indicates the support member, 711 the tiles suitably anchored as at 714 to the support member. Each tile includes along one longitudinal edge the tongue 712 and the adjacent longitudinal groove 713 and the other edge includes a complementary groove 702. The clip—see Fig. 19—includes the body portion 716, base portion 719, head portion 717 and the depending end 718. The base 719 underlies the subjacent tile, the body portion 716 extends between the two adjacent tongue and groove superposed tiles 711 and the head 717 underlies the groove of the superposed tile and overlies the tongue of the adjacent superposed tile, as shown in Fig. 18.

It will be observed by comparison of Fig. 19 with Fig. 12 that the base portion 719 lies upon the same side of the body portion 716 as the head portion 717 thereof, while in Fig. 12, the base portion 419 lies upon the opposite side of said body portion 416 from the head portion 417 of said clip.

In Fig. 20, the tile construction is substantially similar to that illustrated in Fig. 18 but differs therefrom in substantially the same manner that the tile constructions shown in Figs. 16, 8 and 3 differ from the tile constructions illustrated in Figs. 14, 11 and 1, to wit, in Fig. 20, the tile tongue 812 is provided with the transverse notch 815.

In said figures, similar parts are indicated by numerals of the eight hundred series, 810 indicating the support members, 811 the tiles, 812 the longitudinal edge or tongue, and 813 the adjacent groove. The clip associated therewith includes the body portion 816, head portion 817, depending end 818 and the base portion 819. The head portion 817 rests in the notch 815. The method of application of the clip portion is substantially that previously described hereinbefore.

It will be observed that the clips illustrated in Figs. 21, 17, 9 and 4 all differ from their companion clips illustrated in Figs. 19, 15, 12 and 2 respectively, by having a shorter body portion.

It will be observed that the clips shown in Figs. 7, 10 and 13 all differ from their companion clips illustrated in Figs. 6, 9 and 12 respectively, by a non-registering enlargement including an aperture for fixed anchorage, if and when desired.

While various modifications of the invention have been illustrated and described in considerable detail hereinbefore, the same are not to be construed as the sole forms of the invention but the various modifications thereof will readily suggest themselves to those skilled in the art are all considered to be within the broad purview of this invention, as defined by the following claims, and by the terminology "clip", there is intended to be included an anchoring member

that does not pass through any tile in the manner that a nail or the like passes through the tile for anchoring the same, and by the terminology "clip", there is intended to be included within the scope of the invention any unitary arrangement which is operatively associated with a lower tile or an adjacent tile for clip anchorage and which co-operates with another tile for anchoring a normally free end thereof.

The invention claimed is:—

1. In combination, tile support means, a plurality of identical tiles arranged in rows and in partially superposed overlapped relation and supported by said means, each tile being suitably anchored at its upper end to said means, an anchoring clip for each pair of overlapped tiles including a body portion for positioning between adjacent tiles of a pair of overlapping tiles, a hold-down head portion overlapping the adjacent edge of the uppermost of one of the adjacent pair of overlapped tiles, and a base portion positionable above the support means and beneath the top portion of the lower tile overlapped by the held-down tile and anchored thereby for holding down the lower free end of the upper tile, said base portion including an extension portion out of registration with the head portion, and means for simultaneously anchoring the said lower tile and extending through the non-registering portion of the base for securing the same and the lower tile to said support means, each tile including an upwardly exposed longitudinal groove along one edge and having therein an upwardly exposed transverse notch adjacent said edge, the head portion of said clip nesting in said notch, said head portion including a downwardly directed end seatable in said groove.

2. In combination, a tile support means, a plurality of identical tiles arranged in rows and in partially superposed overlapped relation and supported by said means, each tile being suitably anchored at its upper end to said support means, each tile including an upwardly exposed longitudinal groove along one edge and an upwardly exposed transverse notch in the upper surface near said groove and adjacent said edge, and an anchoring clip for each pair of overlapped tiles, including a body portion for positioning between adjacent tiles of a pair of overlapping tiles, a base portion positionable above the support means and beneath the top portion of the lower tile and anchored thereby, and a hold-down head portion overlapping the adjacent edge of the uppermost of one of the adjacent pair of overlapped tiles, said head including a downwardly directed end seatable in the groove, for holding down the lower free end of the upper tile, and a portion nesting in said notch for preventing longitudinal sliding movement of the held-down tile with respect to the clip.

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