Feb. 28, 1956 J. M. WHITE 2,736,054

ANCHOR TRIM

Filed Oct. 2, 1952

Fig. 1.

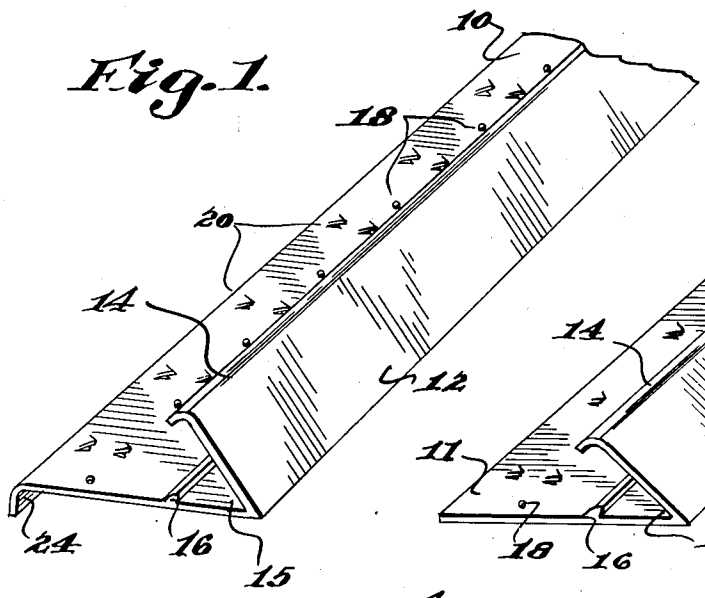


Fig. 2.

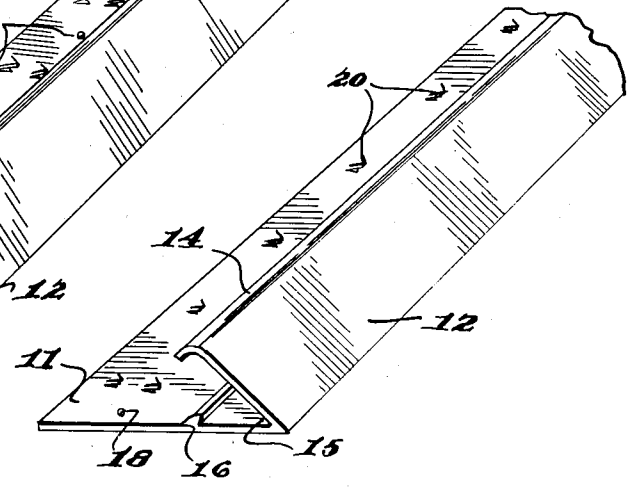


Fig. 3.

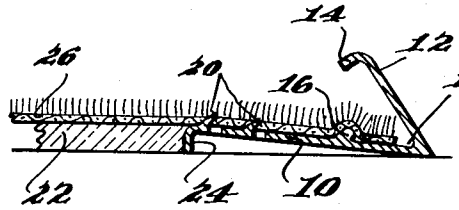
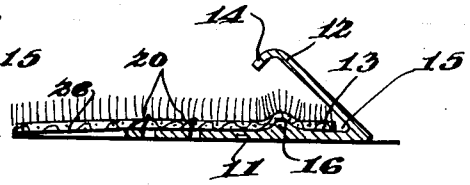


Fig. 4.



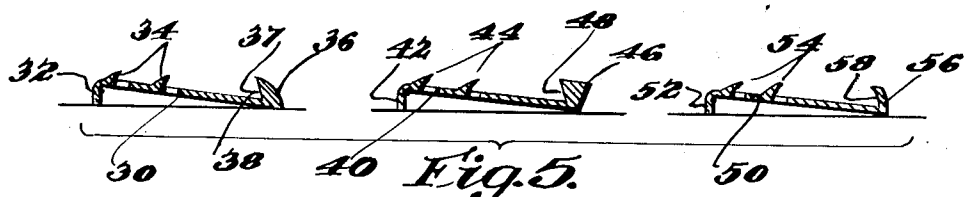


Fig. 5.

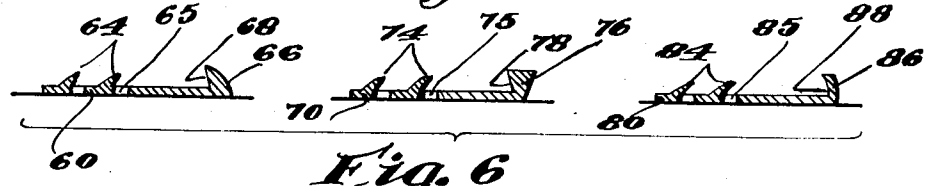


Fig. 6

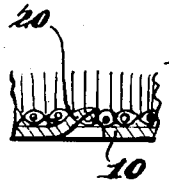


Fig. 7.

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ANCHOR TRIM

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5 Claims. (Cl. 16—16)

This invention relates to apparatus and means for effectively laying carpets and particularly enables rapid installation and completely secure attachment.

In previous known types of fasteners, nails and tacks were necessary with the resultant marring of the floor and carpet in installation and upon replacement. Further when unitary fasteners were used, gathering and bulging was prevalent.

It has been found in conventional carpet laying constructions the unevenness of the flooring has presented serious problems not readily overcome by the previous devices that have been used in that the carpet or rug usually follows the depressions and hills and the customary fastening means have not been sufficiently flexible to accommodate the varying floor surface levels. In addition, the previously known attaching devices required such permanent means to retain the covering that replacement of the carpets or rugs as they became worn presented additional serious problems.

Even though the more modern types of carpet securing means were designed to overcome these deficiencies they failed to completely provide a flat carpet edging and when used in connection with adhesives, the anchoring means was not adequate to secure or lock the carpet in completely flat position in conventional constructions, the devices previously used for securing carpets usually failed to function or were difficult to install and equally difficult to remove when replacement became necessary. In situations where an underpadding had been used, spaces or gaps occurred between the pad and carpet edges creating bumps or hollows and an otherwise unsightly appearance.

It is an object of my invention to provide means for anchoring solid covered carpet areas at all edges having relatively concealed securing means as well as providing safe and adequate finish at exposed edges where travel occurs and presenting a finished edge.

Another object is to provide carpet retaining means which will effectively anchor the carpet against movement.

A further object is to provide carpet securing means quickly installed to the flooring and equally rapid fastening of the carpet to the anchoring means.

Still another objective is to provide means for securing the carpet over under padding and still present an even or unbroken surface.

An additional object is to provide rug end concealing means and to eliminate the collection of dust and dirt at these locations.

A still further object is to provide a carpet anchoring device which will bridge the irregularities in floor surfaces and still maintain the rug and fastener in flat horizontal positions.

A further additional object is to provide an efficient carpet anchoring device which will eliminate the use of tacks and staples, and reduce the use of nails and screws to a minimum.

Other and further objects of the invention will become apparent from a consideration of the following detailed

description thereof, and of one form of the apparatus which may be employed to practice the invention as illustrated in the accompanying drawings in which:

Figure 1 is a fragmentary perspective view of the preferred form of my anchor edge trim;

Figure 2 is a similar fragmentary perspective view of the anchor trim without the depending abutment flange used with an under padding;

Figure 3 is a fragmentary cross-sectional view showing the application of a carpet and underpadding to the anchor trim;

Figure 4 is a similar view showing carpet installation where no underpadding is used;

Figure 5 is a plurality of cross-sectional views of modifications of my anchoring trims, while

Figure 6 discloses a plurality of similar cross-sectional views of modifications without the abutment means.

Figure 7 is an enlarged fragmentary sectional view showing one of the hook-like prongs in engagement with the rings of the carpet.

In the drawings where like reference characters denote like parts, referring particularly to Figure 1, the reference numeral **10** refers to the metal anchor trim, preferably of extruded aluminum alloy, although capable of being pressed out or formed by a rolling process. The anchor trim has an angular flange or sill **12** or one of comparable length. A downwardly depending lip **14** is formed on the end of the flange **12** for a purpose to be later explained. Formed centrally on the top surface of the anchor trim **10** and facing toward the longitudinally extending flange **12** is a rib or projection **16**. This rib **16** is angularly disposed toward the flange or sill **12**, for a purpose to be later defined.

Also located on the top surface of the anchor trim is a forward row of spaced apertures **18** and a double row of spaced arcuate or slightly curved prongs or hooks **20** punched out of this top surface. In application, the anchor trim is secured to the floor at the desired location by nails driven through the openings or apertures **18**.

When the anchor strips **10** are set in position the precut under padding **22**, as shown in Figure 3, is brought up adjacent the downwardly extending flange **24** until it abuts this flange. The carpet **26** is then drawn up horizontally along the length of the strips **10** until the forward edge **13** is parallel to the inner edge of the flanged member **12** but still spaced an appreciable distance from the crotch **15**. As the carpet is drawn toward and over the strip the warp of the carpet is caught on the first and then the second row of prongs or hooks **20**, with the lengthwise or front end **13** of the carpet lying over the projection or rib **16** but short of the crotch **15**. When this has been accomplished and the carpet edge **13** is parallel to the crotch, the flange member **12** is forced down over the entire length until the carpet is firmly crimped or secured against movement. Due to this simple type of construction, installation is rapid and a neat appearing finishing edge is provided.

Further, this anchor type of fastener increases the safety of door ways, where thick and uneven edges appear due to old-fashioned carpet attaching means having been employed. It is also to be appreciated that normally there is an excessive amount of wear at the carpet edges in the immediate vicinity of a door way and through the use of the subject neat anchor edging this condition is eliminated or at least reduced to a minimum.

It can readily be understood that the subject fastener, although originally designed for installation on wooden floors, may readily be applied on concrete, marble, terrazzo, or even steel floors, utilizing adhesives with the form shown in Figures 2 and 4. In application, the smooth surface directly below the carpet edge is given a coating of adhesive and due to the inherent characteristics

of the adhesive working itself under the surface up into the apertures 18 the adhesive, when dry will form a key-lock between the floor and the fastener, as well as that portion of the carpet contacted by the adhesive.

In these Figures 2 and 4, where the downwardly extending flange has been eliminated this more simplified modification is used where padding is not required. In application, as clearly shown in the cross-sectional view in Figure 4, the carpet 26 is pulled up over the upper surface of fastener 11 subsequent to the drying of the liquid previously applied to the floor surface directly thereunder, until the forward edge 13 of the pre-cut carpet is approximately parallel to the inner edge of the re-entrant angle 15 formed by the juncture of the plate 11 and the flange 12. In addition to the apertures 18, as in Figure 1, additional openings are provided due to the forced-out prongs or hooks 20. A similar rib or projection 16 is also provided, as is shown in Figure 1, which is inclined toward the crotch 15.

As previously explained the adhesive, applied directly to the floor surface immediately below where the fastener is to be installed, will work itself up into the apertures 18, creating key locks when dried, will additionally flow into the openings caused by forcing the prongs or hooks 20 from the metal and form key locks for the fastener to the flooring at these locations.

In application, the adhesive is spread or otherwise applied to the surface below the fastener and/or applied to the fastener per se. These anchor strips shown in Figures 1 and 2 are usually supplied in standard lengths ranging from 3 to 12 feet but obviously may be furnished in selected lengths to accommodate varying widths to be covered by the carpet.

Similarly to the application of the carpet to the form shown in Figure 1, the carpet is pulled or stretched up over the hooks or anchor like prongs 20 thus securing the carpet by snagging or hooking the prongs into the warp from the rear of the carpet thus eliminating the need of tacks, nails or other surface attaching means.

To additionally secure the carpet against slipping or dislodging and to conceal the end edge of the carpet, the end is brought over the rib 16 after fastening to the prongs or hooks and then forced or compressed into the crotch or re-entrant angle 15 between the angular rib 16 and the flange 12. When firmly in place, the angularly positioned flange 12, extending along the entire width of the rug is pressed or forced downwardly to effectively crimp the carpet ends and preclude dislodgement therefrom.

It is to be particularly noticed that when the flange 12 is forced down to secure the carpet well within its confines, a very satisfactory overall appearance is acquired for the flat surface, then lying approximately in the same plane as the flat surface 11, presents a finished edging with the carpet end and the securing means concealed from view. From the above, it is readily apparent that when replacement of the worn carpet becomes necessary, it may easily be removed by raising the flange 12 and disengaging the carpet from the prongs or hooks as well as the adhesive along the strip and subsequently installing a new carpet without replacement of the carpet anchoring means.

As in Figure 1, the anchoring strips or trims are supplied in varying lengths to fit the individual needs and to more readily span the widths of the carpet to be attached. Further, if a section of the strips becomes damaged due to unnatural causes, such as being struck by heavy objects or furniture to cause marring or distortion and accompanying unsightly appearance, that particular section may be quickly disengaged and replaced with the minimum cost and effort.

In the various modifications shown in Figure 5 it can be appreciated that these forms are also to be used in conjunction with an under padding. These forms are somewhat similar to the one disclosed in Figures 1 and 3 having downwardly depending flanges adapted to abut the outer edge of the under pad. The first strip 30, with its downwardly depending flange 32, also has parallel rows of prongs or hooks 34 as well as the alternately spaced apertures 35 to enable attachment to the flooring by nails. The arcuate head 36 with its inwardly slanting inner edge 37 forms an acute re-entrant angle 38. When the carpet is pulled up over the pad abutting the flange 32 it is first engaged by the first and then the second row of prongs or hooks 34. The ends of the pre-cut carpet is then tucked or compressed between forward extending row of prongs and the re-entrant angle or crevice extending the length of the trim or strip which, in bunching conceals the raw ends from view. This eliminates the necessity of binding or facing requiring no additional finishing means.

The second form of trim or strip 40 shown in this view is similarly provided with an abutting flange 42, prongs or hooks 44, apertures 45 and a trapezoidal head or bead 46. This head being of trapezoidal formation provides an inwardly slanting inner edge creating a similar acute angle 48 for the reception of the carpet end compressed between the forward row of hooks 44 and the aforementioned acute angle 48. This form, as well as that shown in the first of the modifications is designed to securely retain the carpet where the traffic would tend to disrupt the carpet ends unless securely compressed within this pocket area. It is to be observed that the forms shown in Figures 5 and 6 utilize a minimum amount of metal to provide a relatively thin trim head throughout the entire length of the strip. Where situations demand, a heavier head or bead may be employed.

The third form of fastener in this view provides a similar trim fastener 50, flange 52, prongs or hooks 54, apertures 55, while the front hook-like edge creates a similar re-entrant angle 58 for the reception and retention of the carpet end. Here, despite a minimum amount of metal the carpet end is securely compressed between the forward row of prongs 54 and the longitudinally extending hook-like head or bead 86. Despite the limited amount of metal in the head, a finished edge is provided.

The second form of strip or trim disclosed in Figure 5 is adapted, because of its inwardly extending outer edge, to be used where the strip is to be installed adjacent rubber, tile, asphalt, linoleum, plastic or other types of flooring compositions, the inclined outer edge adapted to wedgingly abut the previous layed compositions.

An enlarged sectional view as shown in Figure 7 more accurately defines the hook-like prongs 20 forced out of the metal of strip 10. It is to be further noticed that the forward heads shown in Figures 5 and 6 are at height above the anchor comparable to the thickness of carpet.

Several modifications, similar to those provided in Figure 5, are disclosed in Figure 6 but without the downwardly extending pad abutting flange. The first trim 60 is provided with prongs or hooks 64, openings 65 and an outer arcuate head edge 66, the head with its inwardly slanting edge providing a re-entrant angle 68. Similarly, the second trim form 70 is provided with prongs 74, openings 75, a trapezoidal head 76, and re-entrant angle 78. The third form of trim 80 is provided with prongs 84 openings 85, reentrant angle 88, while the arcuate or hook-like head 86, similar to that shown in Figure 5, is formed of the minimum of metal throughout its longitudinal length. Padding is eliminated in these three forms which are attached by adhesive previously applied to the floor surface directly thereunder to form a lock between the floor and the carpet anchor means, the same method of installation as shown in all of the forms in Figure 6. As in all of these trims, the carpet is drawn up to be engaged by the hooks and the carpet ends compressed into the re-entrant angles to conceal the carpet ends and present a finished edge in each instance.

Although I have described the illustrated embodiments

of my invention in considerable detail, it will be understood by those skilled in the art that modification and variations may be made without departing from the spirit of my invention. The various forms may be modified or changed to meet conditions, but basically the subject disclosure only broadly reflects this development. I do not, therefore, wish to be limited to the specific embodiments of my invention shown and described herein, but claim as my invention all modifications coming within the scope and purview of the appended claims.

What is claimed is:

1. In a carpet fastener, a unitary anchor strip adapted to lie along a floor having means to enable attachment thereto, means on said strip adapted to engage and secure said carpet against dislodgement, said means comprising a plurality of spaced arcuate hooks adapted to engage the underside of said carpet, a longitudinal abutment formed on the upper surface of said strip, an inwardly and upwardly slanting flange positioned at the forward edge of said strip overlying said abutment, a downwardly extending lip member mounted thereon, said flange adapted to be compressed over said longitudinal abutment whereby said lip member will contact said carpet between said hooks and said abutment and when bent down into a plane approximately parallel to the top surface of said anchor strip will secure the front edge of said carpet therebetween, the crest of said longitudinal abutment being directed toward the two converging surfaces, a second flange extending downwardly at an approximate right angle from the rear edge of said strip and positioned in abutting relationship with the forward edge of an under padding, and said carpet adapted to be engaged by said hooks rearwardly of said longitudinal abutment, the underside of said first mentioned flange adapted to compress said carpet into close proximity with the top of said longitudinal abutment.

2. In a unitary longitudinally extending carpet anchor trim and fastener, the combination of carpet securing means and means for securing the anchor trim to flooring, said carpet securing means comprising a rearwardly extending flange having a downwardly extending lip, a longitudinal rib, the crest of which is directed toward the junction of said flange and the horizontal trim surface, a double row of slanting hook-shaped prongs pressed out of the metal of said horizontal trim surface adapted to engage the underside of said carpet rearwardly of said longitudinal rib, the edge of said carpet extending over said rib into said junction and compressed therein when said flange is bent into a plane proximate to that of the carpet, and said downwardly extending lip engaging said carpet between said prongs and said longitudinal rib.

3. A one piece carpet fastener trim comprising in combination with floor securing means of carpet engaging means, said one piece fastener comprising two converging sections forming a re-entrant angle at their apex, a downwardly extending lip positioned on the end of said upper section, a plurality of spaced hooks formed on said lower section rearwardly of said lip adapted to engage

the under surface of said carpet, said downwardly extending lip adapted to engage the upper surface of said carpet between said hooks and said re-entrant angle, said hooks being located between the rear edges of said upper and lower sections, and the free edge of said carpet received in said re-entrant angle and compressingly contacted by the under surface of said upper converging section whereby said carpet is secured against dislodgement.

4. A one piece carpet fastener trim in combination with floor securing means, carpet engaging means, said one piece fastener comprising inwardly extending sections forming a re-entrant angle at their apex, a downwardly extending lip member located on the end of the upper of said sections, a plurality of spaced carpet engaging hooks formed on the lower of said sections and located rearwardly beyond said upper section, said upper section adapted to be compressed downwardly against said carpet whereby said lip member contacts said carpet rearwardly from said re-entrant angle, the edge of said carpet being confined within said re-entrant angle whereby said carpet is secured against dislodgement, said floor securing means comprising a plurality of spaced apertures formed in the lower trim section to receive nails whereby said fastener trim is secured to the floor, said carpet being further engaged on its under surface by said hooks rearwardly of said lip and on its upper surface by said downwardly extending lip.

5. In a unitary longitudinally extending carpet anchor trim and fastener, the combination of securing means and means for attaching the anchor trim to flooring, the said carpet securing means comprising a rearwardly extending flange having a downwardly extending lip, a longitudinal rib, the crest of which is directed toward the junction of said flange and the lower horizontal trim surface, a double row of inwardly slanting hook-shaped prongs pressed out of the metal of said lower horizontal trim surface rearwardly of said lip and rib, the edge of said carpet engaged by said prongs, extending over said rib and into said junction and adapted to be compressed therein when said flange is in bent horizontal position with said lip engaging said carpet between said prongs and said longitudinal rib, a second flange extending downwardly from the rear edge of said anchor trim and positioned in abutting relationship with the forward edge of an under padding.

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