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COMBINATION BINDING AND ANCHOR DEVICE FOR FLOOR COVERINGS

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Fig. 1

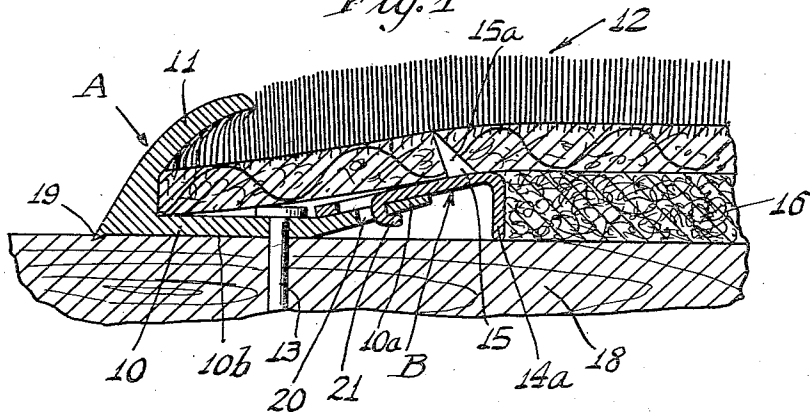
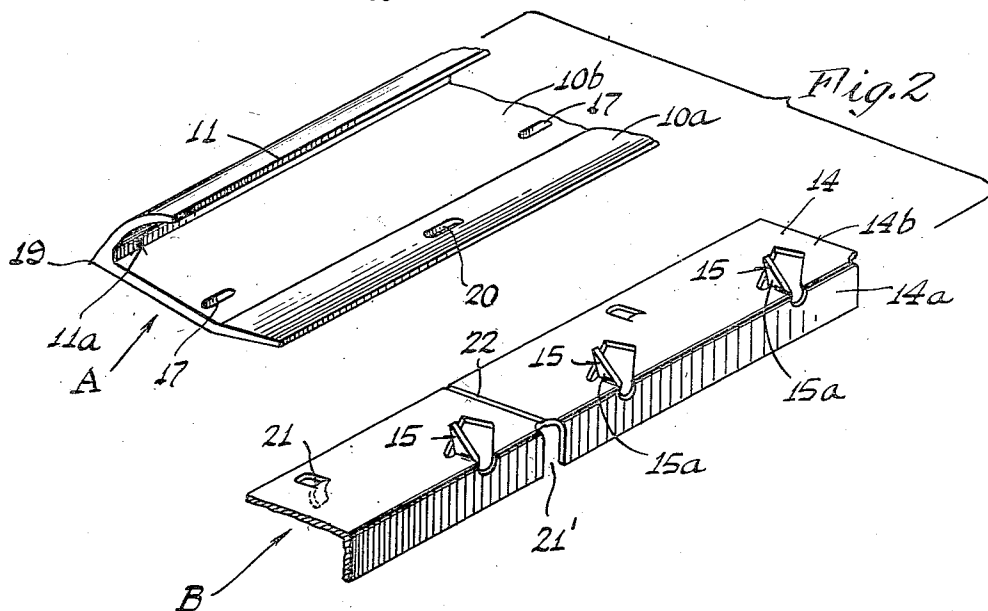


Fig. 2



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COMBINATION BINDING AND ANCHOR DEVICE FOR FLOOR COVERINGS

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8 Claims. (Cl. 16—7)

This invention relates to a combination binding and anchoring device for protecting the marginal edge portions of a floor covering while at the same time firmly securing and anchoring the floor covering to a supporting surface.

Heretofore a combination binding and anchoring member has been provided for protecting and securing an edge portion of a floor covering to a supporting surface, particularly those edges in the vicinity of a doorway, a hearth of a fireplace, or other openings, and the like, wherein the floor covering is subjected to much use. These have been constructed of relatively soft, pliable material such as aluminum, brass, or the like, so that the member could be bent to grip and to form a protective binding along the edge portion of the floor covering. It was the further practice to provide such members with projecting tangs, usually formed integral therewith to pierce a floor covering in order to anchor it in place. An inherent disadvantage in such a device was that the tangs, so formed of such a soft material, had insufficient strength in which to positively secure the covering to a supporting surface. As a result normal use of the covering would soon cause the tangs to be bent or sheared from the anchoring means, rendering the anchor portion ineffective as a fastening means to firmly anchor the floor covering to a supporting surface. This produces a hazardous condition in that one could easily trip and severely injure himself on such insecurely fastened edge portions of a floor covering.

Also, it was the practice to merely resiliently press and secure the prior known devices of this type to a supporting surface by use of fasteners, such as nails positioned at regularly spaced intervals. Now the disadvantage of merely resiliently pressing such a device against a supporting surface was that it did not provide a sufficient seal against the accumulation of dust, dirt, and other foreign matter beneath the floor covering secured thereto.

It is an object of this invention to overcome the above disadvantages by providing a combined binding and anchoring device whereby the binding portion is made of a relatively soft material to form a grip and a protective binding for an edge portion of a floor covering, and the anchoring portion connected thereto made of a much harder and stronger material and provided with integral novel holding means to pierce and securely anchor the floor covering in place.

Another object of this invention is to provide a combination binding and anchoring member with a means which is adapted to form a positive seal with a supporting surface to positively prevent the accumulation of foreign matter beneath the floor covering.

Another object of this invention is to provide a combined binding and anchoring device which is relatively simple, inexpensive and easily produced.

A feature of this invention resides in the provision of a combination binding and anchoring portion whereby the anchoring portion of the device is provided with a

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weakened portion at regularly spaced intervals to facilitate the fracturing thereof into any desired lengths to provide anchor members of determinate length corresponding to that of a predeterminate length of a binding member.

Other features and advantages will be apparent from the specification and claims when considered with the drawing in which:

Figure 1 illustrates a sectional side view of the novel binding and anchoring device as applied to an edge portion of a floor covering.

Fig. 2 is an exploded perspective view of the novel binding and anchoring device illustrating the details thereof.

The combined binding and anchoring device, according to this invention, is adapted to be placed along the exposed edge portion of a floor covering such as a rug, a carpet, or the like, so that the edge portions adjacent openings such as, for example, doorways, around projecting hearths of fireplaces, or the like, are protected from abrading or becoming worn while at the same time firmly and positively securing the covering, or the like, to a supporting surface so as to prevent one from tripping or stumbling thereover.

As shown in the drawings, the novel binding and anchoring device comprises essentially two parts, namely a binding member A and an anchoring member B. Heretofore such combined binding and anchoring devices were formed as an integral member usually made of a soft, pliable material such as aluminum, brass, or the like, so that the binding portion could be bent to clamp over the edge of the floor covering. However, the holding devices or tangs formed integrally therewith and made of such soft and pliable material were ineffective to securely anchor the floor covering to a supporting surface in that the tangs which were made of like material would shear or bend when under pulling forces applied to the rug so as to render the anchoring portion thereof ineffective.

The present invention overcomes this disadvantage by providing a two-part binding and anchoring device which retains the advantages of the soft metal edge and in addition provides a secure holding means for the floor covering.

As illustrated in Fig. 1, the binding member A comprises a strip of relatively soft material, or the like, generally in the form of an extruded or molded elongate strip of aluminum, brass, copper, or the like, having a base portion 10 adapted to engage the floor and having from one edge and upwardly extending curved or cover portion 11 adapted to extend up and over the edge of the floor covering 12 and to be moved into overlying and clamping relation with the edge of the floor covering. The base portion 10 may be secured to the floor by any suitable means 13 and has connected to the opposite edge thereof means B for securely holding the rug against movement away from the edge binding means. This holding means B comprises a strip of steel plate 14 adapted to be securely anchored to the edge portion and is provided with tangs 15 projecting thereabove to pierce the back of the floor covering and hold it against movement away from the edge. While the holding means can be made to form a flat continuation of the base 10 for installations wherein a floor covering pad 16 is not employed, in the herein illustrated form of the invention, the edge portion 10a of the base is inclined upwardly and the holding means B is formed as an extension thereof with the rear edge or leg portion folded down to support the back end of the plate a distance above the floor equivalent to that of the rug pad 16 as shown in Fig. 1.

More specifically as shown in Fig. 1, the binding member A has a base portion 10 provided with a longitudinal

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bend intermediate the edge portions thereof forming a substantially horizontal base or floor-engaging portion 10b and an upwardly-inclined marginal portion 10a. Connected to the edge of the floor-engaging portion 10b is a cover portion 11 which extends upwardly therefrom and overlies the floor-engaging portion so as to form a receiving chamber 11a for engaging the edge portion of a floor covering 12 to form a trim thereon. Because the binding portion A is made of a relatively soft material, the cover member 11 thereof may be bent so as to bite into the floor covering as shown in Fig. 1 to form a binding therefor and to aid in securing the covering to the anchoring portion. Spaced apertures 17 along the floor-engaging member 10b thereof receive a fastening means 13 such as nails, screws, or the like, by which the binding member is secured to a supporting surface 18.

In order that dust, dirt, and other such foreign matter be prevented from accumulating beneath the edge portion of the covering, a toe portion 19 extending the length of the binding member A is provided adjacent the junction of the cover portion 11 and the floor-engaging portion 10b so that the toe 19 may bite into the supporting surface 18 when the binding element is fastened to a supporting surface as shown in Fig. 1. This arrangement positively prevents dirt from accumulating beneath the binding portion thereof.

As illustrated, the holding or anchoring means B is formed of an elongated steel plate body 14 which is a harder and stronger material than that of the binding portion. As shown in Fig. 2, the anchoring member B is an elongated steel plate member 14 having a longitudinal bend therein forming a substantially vertical leg portion 14a and a downwardly-inclined table portion 14b, the leg portion 14a being of a sufficient length to equal the thickness of a pad 16, if one is placed beneath a floor covering.

While any suitable means may be used to fasten these two members together, the illustrated form of the invention provides interlocking means by which the anchoring portion is fastened to the binding portion. As shown, the inclined marginal portion 10a of the binding member A is provided with spaced apertures 20, preferably specially disposed intermediate the apertures 17 for receiving the fasteners securing the binding portion to the supporting surface, to receive a tongue portion 21 stamped or punched out of the table portion 14b of the anchoring means. In this manner the two are securely fastened.

In order that the floor covering may be securely fastened in place to a supporting surface, the anchoring member B is provided with a plurality of tangs 15 longitudinally spaced along table portion 14b thereof and which are stamped or punched therefrom. This provides an expedient and inexpensive means for manufacturing said anchoring means. As shown in Fig. 2, the tangs are substantially triangular in shape, herein illustrated as forming obtuse triangles, which in raised projected position are rearwardly sloped. In the illustrated form, the tangs 15 are laterally bent so that the bottom portion 15a thereof lies in a substantially transverse perpendicular plane relative to said table portion 14b. With this construction, the tangs are greatly strengthened and not easily bent or broken because the thickness of the tang 15 in the direction of the force applied thereto is greatly increased, thereby insuring that the covering is maintained in position.

Since the binding members are usually extruded and are formed in varying predetermined lengths and can be easily cut, it is desirable that the anchoring member, which is also produced as elongate strips, be provided with weakened portions so that the anchoring plate may be readily fractured into lengths corresponding to that of the binding portion. In the illustrated form these weakened portions of the anchoring strips consist of cooperating notches 21 and score marks 22 at regularly

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spaced intervals which provide a means whereby determine lengths of the anchoring member can be readily had by fracturing it into predeterminate lengths without the use of any tools as by simply manually bending the anchoring member at the weakened portion thereof nearest the desired length required. However, it will be noted that these weakened portions in no way effect the anchoring characteristics of the anchor member.

In operation, as shown by Fig. 1, the combination 10 binding member A and anchoring device B is fastened to a supporting surface in the desired position on a supporting surface by fastening means, such as nails extending through the apertures in the floor-receiving portion of the binding member. With the device accordingly 15 fastened to the floor, the toe portion 19 thereof will bite into the supporting surface forming a dust and dirt-proof seal therewith. In this position the device is ready to receive the edge portion of the floor covering. The covering 11 is positioned to be received within the recess or chamber 11a formed by the cover portion 11 and the floor-engaging portion 10b of the binding member. The cover portion 11 is then bent so as to grip the edge portion of the covering, as shown in Fig. 1, and cooperates with the tangs 15 which pierce the backing portion of the floor covering so as to securely maintain the floor covering in fixed position. Thus the binding member forms an adequate protection for the exposed edges of a floor covering while at the same time maintaining a dust-free seal therefor. With the use of this novel binding and anchoring device adjacent openings such as doorways, or the like, the floor covering is securely anchored and protected along the exposed edges thereof so that one will not trip or stumble thereon. The novel device described further prevents the edge portions of a floor covering from interfering with the operation of a door in the vicinity thereof.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

I claim:

1. A protective and anchoring device for a floor covering comprising an elongate protective binding member of readily bendable material having a base portion adapted to be secured to a floor and a cover portion connected to extend along one edge of the base portion to project upwardly and overlie the base in spaced relation and being adapted to be bent relatively to the base portion so as to grip the edge portion of a floor covering therebetween, anchoring means connected to the other edge of the base portion to form a rigid continuation thereof and comprising a member of metal more resistant to bending than the binding member so as to have considerable resistance to bending and extending therealong and having tangs projecting upwardly therefrom adapted to bite into the back of the floor covering to hold it against movement away from the cover portion.

2. A protective and anchoring device for a floor covering comprising an elongate protective, readily bendable aluminum binding member having a base portion adapted to be secured to a floor and a cover portion connected to extend along one edge of the base portion thereof to project upwardly and overlie the base in spaced relation and adapted to be readily bent to grip the edge portion of a floor covering therebetween, anchoring means connected to the other edge of the base portion to form a rigid construction therewith, and comprising a steel plate extending therealong, said plate being more resistant to bending than the binding member and having tangs projecting upwardly therefrom adapted to bite into the back of the floor covering to hold it against movement away from the cover portion.

3. A protective, anchoring device for a floor covering comprising an elongated protective binding member of readily bendable material having a longitudinal bend

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intermediate the longitudinal edge portions thereof forming a base portion and an upwardly inclined marginal portion connected thereto, said base portion being provided with spaced apertures for receiving fasteners to secure said base to a supporting surface, a cover portion connected to the edge portion of said base to overlie said base in spaced relationship and adapted to be bent to grip on the edge portion of a floor covering therebetween to form a protective binding therefor, the junction of said cover and base portion being provided with downwardly projecting toe portion which is adapted to bite into supporting surface so as to positively prevent foreign matter from accumulating under the floor covering, and a separate anchor member of different material connected to said upwardly inclined marginal portion and having means thereon for securely gripping said floor covering thereto.

4. A protective, anchoring device for a floor covering comprising an elongated protective, readily bendable binding member of relatively soft material having a longitudinal bend intermediate the edge portions thereof forming a base portion and an upwardly inclined marginal portion connected thereto, said base portion being provided with spaced apertures for receiving fasteners to secure said base to a supporting surface, a cover portion connected to the longitudinal edge portion of said base to overlie said base portion in spaced relationship and adapted to be readily bent to grip an edge portion of a floor covering therebetween to form a protective binding therefor, the junction of said cover and base portion being provided with downwardly projecting toe portion which is adapted to bite into the support surface so as to positively prevent foreign matter from accumulating under a floor covering, and an anchor member of relatively harder material being more resistant to bending than the binding member and connected to said marginal portion and having supporting means therefor to engage a supporting surface and means for piercing and securely gripping said floor covering thereto.

5. In a protective anchoring device for a floor covering, an elongated protective binding member of relatively soft, readily bendable material having an upwardly-inclined marginal portion, and an anchoring member of relatively harder material more resistant to bending than the binding member connected to said marginal portion, said anchoring member having a longitudinal bend intermediate the edges thereof forming a leg portion which is adapted to engage a supporting surface in substantially perpendicular relationship and a downwardly-inclined table portion adapted to be spaced from said supporting surface to engage said upwardly-inclined portion, interconnecting means for connecting said anchor member to said binding member and means projecting from said table portion to pierce and secure a floor covering thereto so that the covering is firmly anchored to a supporting surface.

6. In a protective anchoring device for a floor covering, an elongated protective binding member of relatively soft, readily bendable material having an upwardly-inclined marginal portion having longitudinally spaced apertures therein, and an anchoring member of relatively harder material more resistant to bending than the binding member having a longitudinal bend intermediate the edges thereof forming a leg portion which is adapted to engage a supporting surface in substantially perpendicular relationship and a downwardly-inclined table portion adapted to be spaced from said supporting surface to engage said upwardly-inclined portion, said table por-

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tion having spaced tongue members to project through said apertures for connecting said anchor member to said binding member and means projecting upwardly from said table portion to pierce and secure a floor covering thereto so that it is firmly anchored to a supporting surface.

7. A protective anchoring device for a floor covering comprising an elongated protective, readily bendable binding member having a longitudinal bend intermediate the longitudinal edge portions thereof forming a base portion and an upwardly-inclined marginal portion connected thereto, said base portion being provided with spaced apertures for receiving fasteners to secure said base to a supporting surface, a cover portion connected to the edge portion of said base and readily bent to overlie said base in spaced relationship and adapted to grip an edge portion of a floor covering therebetween to form a protective binding therefor; an anchor member more resistant to bending than said binding member and having a longitudinal bend intermediate the edge portions thereof, forming a leg portion which is adapted to engage a supporting surface and a downwardly-inclined table portion, said upwardly-inclined marginal portion and downwardly-inclined table portion having tongue and aperture connecting means whereby the said anchor member is secured to said protective binding member, and said anchor members having means for piercing and securely gripping the floor covering so as to firmly adhere it to a supporting surface.

8. A protective anchoring device for a floor covering comprising an elongated protective, readily bendable binding member having a longitudinal bend intermediate the longitudinal edge portions thereof forming a base portion and an upwardly-inclined marginal portion connected thereto, said base portion being provided with spaced apertures for receiving fasteners to secure said base to a supporting surface, a cover portion connected to the edge portion of said base and readily bent to overlie said base in spaced relationship and adapted to grip an edge portion of a floor covering therebetween to form a protective binding therefor, the junction of said cover and base portion being provided with downwardly-projecting toe portion which is adapted to bite into the supporting surface so as to prevent foreign matter from accumulating under a floor covering; an anchor member more resistant to bending than said binding member and having a longitudinal bend intermediate the edge portions thereof, forming a leg portion which is adapted to engage a supporting surface and a downwardly-inclined table portion, said upwardly-inclined marginal portion and downwardly-inclined table portion having connecting means whereby the said anchor member is secured to said protective binding member, and said anchor member having means for piercing and securely gripping the floor covering so as to firmly anchor it to a supporting surface.

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