Jan. 15, 1957 D. D. SMITH 2,777,789

FLOOR COVERING

Filed Oct. 27, 1954

3 Sheets-Sheet 1

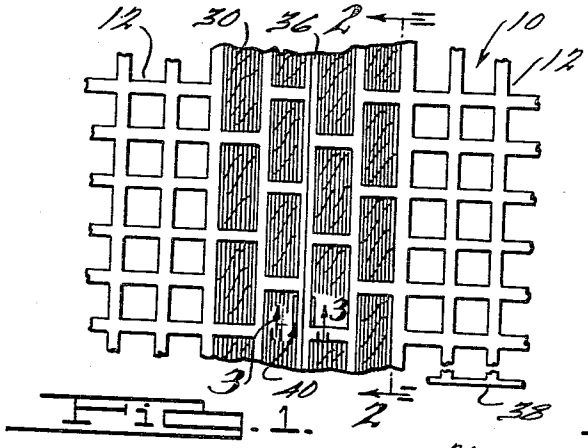

Fig. 1.

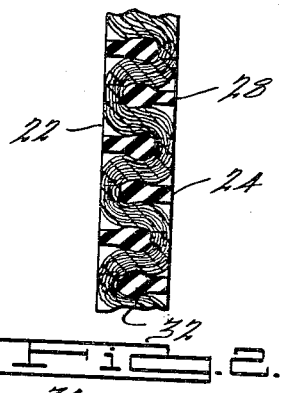

Fig. 2.

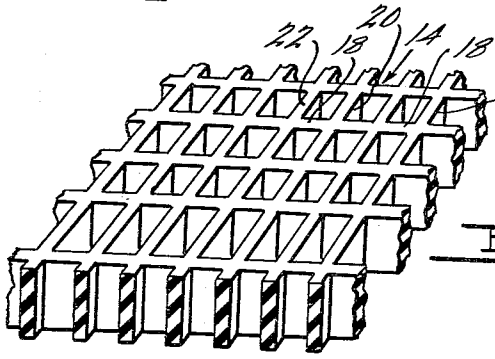

Fig. 4.

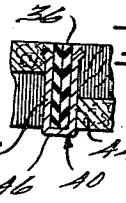

Fig. 3.

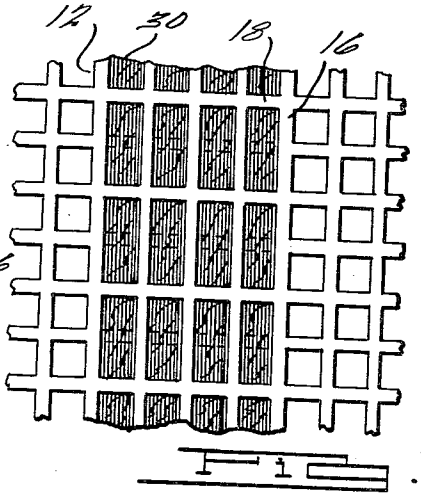

Fig. 5.

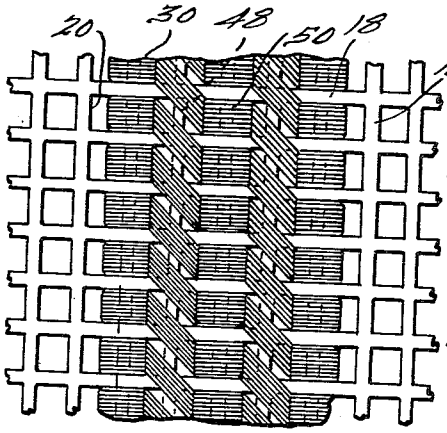

Fig. 6.

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3 Sheets-Sheet 2

Fig. 7.

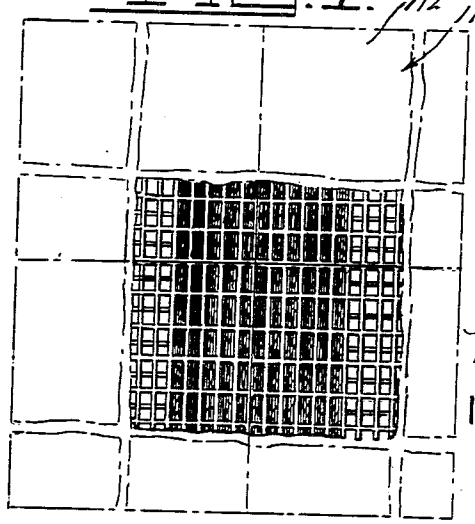


Fig. 8.

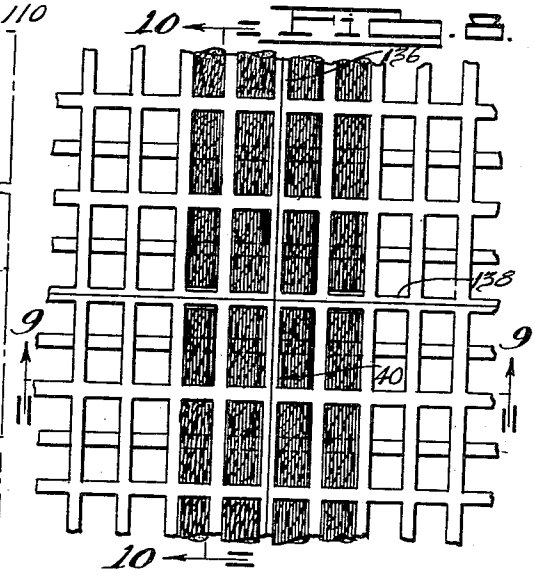
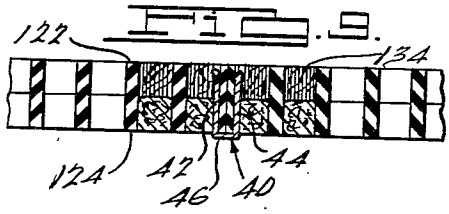


Fig. 9.



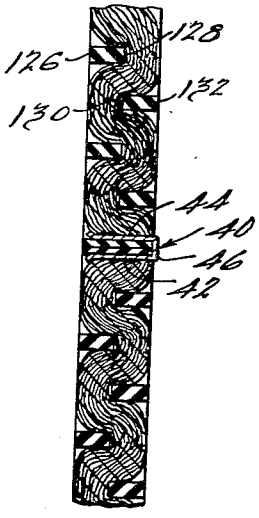
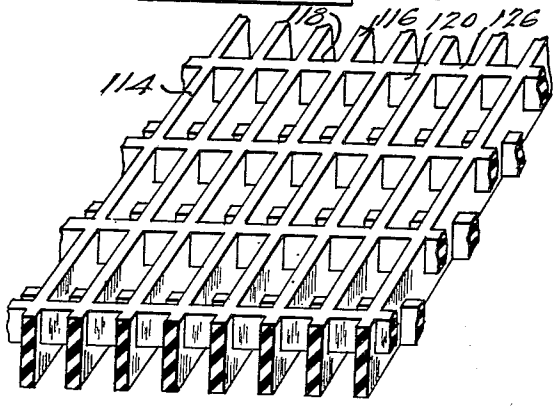


Fig. 10.

Fig. 11.



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3 Sheets-Sheet 3

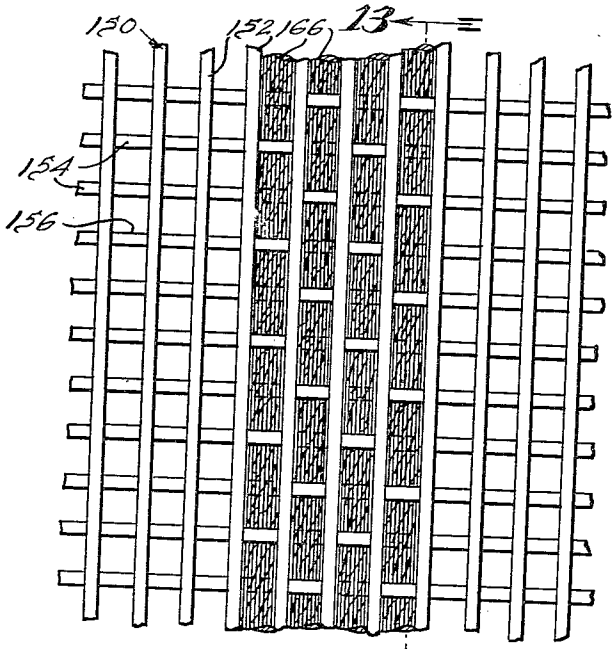

Fig. 12.

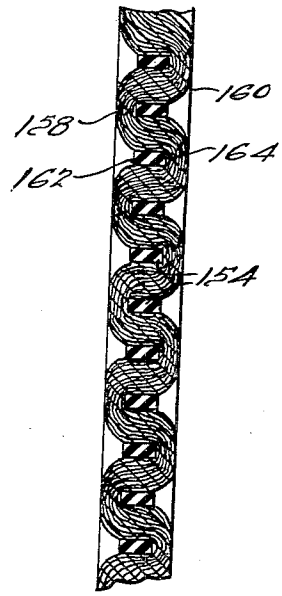

Fig. 13.

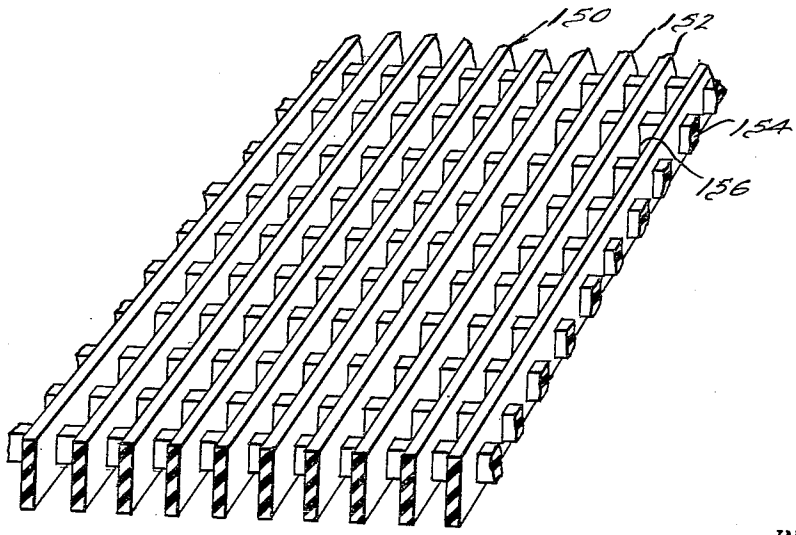

Fig. 14.

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United States Patent Office 2,777,789
Patented Jan. 15, 1957

2,777,789

FLOOR COVERING

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Application October 27, 1954, Serial No. 464,965

20 Claims. (Cl. 154—49)

This invention relates to protective coverings and, more particularly, to an improved floor covering.

An object of the invention is to overcome disadvantages in prior floor coverings and to provide an improved floor covering incorporating improved means for increasing the service life thereof.

Another object of the invention is to provide an improved floor covering which obviates the necessity of providing pad means intermediate the covering and the floor.

Another object of the invention is to provide an improved floor covering which is economical to manufacture, durable, and which may be supplied in a wide variety of patterns and styles that are pleasing in appearance.

Another object of the invention is to provide an improved floor covering which may be supplied in the form of replaceable tiles, in the form of a carpet or in the form of a rug; which may be easily and quickly installed so as to cover any desired area of a floor with a minimum of time, labor and expense; and in which selected sections that may be subjected to excessive wear may be easily and quickly replaced.

Another object of the invention is to provide an improved floor covering which may be supplied to the purchaser in kit form for completion and installation by the purchaser.

Still another object of the invention is to provide an improved floor covering which obviates the necessity of trimming and binding the edge portions thereof.

Yet another object of the invention is to provide an improved floor covering which incorporates improved means for gripping the floor to reduce relative movement between the covering and the floor.

The above as well as other objects and advantages of the present invention will become apparent from the following description, the appended claims and the accompanying drawings wherein:

Figure 1 is a fragmentary top plan view of a floor covering embodying the present invention;

Fig. 2 is a sectional view of the floor covering illustrated in Fig. 1, taken on the line 2—2 thereof;

Fig. 3 is a sectional view of a portion of the floor covering illustrated in Fig. 1, taken on the line 3—3 thereof;

Fig. 4 is a perspective view of the matrix of the covering illustrated in Fig. 1, showing the yarn removed therefrom;

Fig. 5 is a top plan view of another pattern that may be woven into the matrix illustrated in Fig. 4;

Fig. 6 is a top plan view of another pattern that may be woven into the matrix illustrated in Fig. 4;

Fig. 7 is a top plan view of another embodiment of the invention;

Fig. 8 is an enlarged top plan view of a portion of the floor covering illustrated in Fig. 7;

Fig. 9 is a sectional view of a portion of the floor covering illustrated in Fig. 8, taken on the line 9—9 thereof;

Fig. 10 is a sectional view of the floor covering illustrated in Fig. 8, taken on the line 10—10 thereof;

Fig. 11 is an enlarged perspective view of a portion of the matrix illustrated in Fig. 7, and showing the yarn removed therefrom;

Fig. 12 is a top plan view of another embodiment of the invention;

Fig. 13 is a sectional view of the floor covering illustrated in Fig. 12, taken on the line 13—13 thereof; and

Fig. 14 is a perspective view of the matrix illustrated in Fig. 12, showing the yarn removed therefrom.

Referring to the drawings, and more particularly to Figs. 1–4, a floor covering, generally designated **10**, is shown embodying the present invention, although it will be understood that the present invention is applicable to other uses. In the embodiment of the invention illustrated in Figs. 1 through 4, the floor covering **10** is comprised of a plurality of substantially flat rectangular members **12** which are disposed in side-by-side and end-to-end relationship so as to form a substantially continuous floor covering. It will be understood, however, that the floor covering **10** may be formed in one piece, as for example, in the form of a conventional rug or the floor covering may be comprised of a plurality of elongate carpet-like strips disposed in side-by-side relationship.

The members **12** are each comprised of a matrix **14** which may be made of plastic, rubber or other suitable material, preferably a resilient material. The matrix **14** includes a plurality of elongate spaced substantially parallel ribs **16** and a plurality of spaced substantially parallel cross pieces **18** which extend transversely of the ribs **16** and are preferably integrally joined thereto. The ribs **16** and the cross pieces **18** preferably intersect at substantially right angles and the ribs and cross pieces define a plurality of apertures **20** which are preferably aligned in rows and columns. As shown in Figs. 2 and 4, the upper surfaces **22** of the ribs **16** are initially substantially co-planar and lie in a plane substantially parallel to the plane of the lower surfaces **24** of the ribs. The upper surfaces **26** and the lower surfaces **28** of the cross pieces **18** are initially substantially co-planar with the upper and lower surfaces, respectively, of the ribs **16**.

In the embodiment of the invention illustrated in Figs. 1–4, strands of yarn **30**, which may be made of wool, cotton, synthetic fibers or other suitable material are woven through the apertures **20** in a direction substantially parallel to the longitudinal axes of the ribs **16**, the yarn being woven through the apertures so that the sections of the strands of yarn which are visible in alternate columns are staggered in relation to the sections of the strands of yarn which are visible in the remaining columns, as shown in Fig. 1. The resilience of the matrix **14** is such that when the floor covering is installed and pressure is applied to the floor covering, as by stepping on the floor covering, the yarn bears against the upper portions of alternate cross pieces and the lower portions of the remaining cross pieces so that the upper portions of the alternate cross pieces are compressed, as at **32**, while the lower portions of the remaining cross pieces are compressed, as at **34**, with the result that the upper surfaces of the ribs **16** and the upper surfaces of alternate cross pieces **18** are substantially co-planar with the uppermost portion of the yarn and such surfaces of the matrix serve as wear surfaces which serve to lengthen the life of the floor covering. At the same time, the lower surfaces of the ribs **16** and the lower surfaces of the remaining cross pieces **18** resiliently bear against the floor, and such lower surfaces of the matrix grip the floor to reduce the tendency of the floor covering to move relative to the floor. By varying the thickness of the matrix **14** and the resilience of the material forming the matrix, the wearing characteristics and floor-gripping characteristics of the floor covering may be controlled.

In order that the tile-like members **12** may be easily and quickly releasably fastened together in side-by-side and end-to-end relationship to form a complete floor covering, the outermost ribs **36** and the outermost cross pieces **38** of each matrix **14** are formed so as to be approximately one-half the thickness of the remaining ribs **16** and cross pieces **18**. A plurality of generally U-shaped clips **40** are provided having spaced substantially parallel side portions **42** and **44** joined at one end by a bight portion **46**. When the members **12** are installed in side-by-side and end-to-end relationship, the side portions **42** and **44** of the clips **40** are fitted over the reduced thickness peripheral ribs and cross pieces at a position near, but spaced from, the corners of the members **12** so as to secure the peripheral ribs and cross pieces of adjacent members **12** in side-by-side relationship, the free ends of the clips **40** terminating below the upper surfaces of the peripheral ribs and cross pieces so as to be inobtrusive. When the members **12** are assembled in such a manner, individual or selected members **12** which may be subjected to excessive wear may be easily and quickly removed and replaced with a minimum of labor and expense. For example, members **12** which are disposed adjacent a door of a room may be transposed with other members **12** that are disposed in areas normally receiving less wear, thereby obviating the necessity of turning the entire floor covering and materially increasing the service life of the floor covering.

As shown in Figs. 1, 5 and 6, the yarn may be woven through the matrix **14** in a wide variety of styles and patterns. For example, as shown in Fig. 5, the yarn is woven through the apertures **20** in a direction substantially parallel to the longitudinal axes of the ribs **16**, the yarn passing over and under the upper and lower surfaces, respectively, of alternate cross pieces so that the upper surfaces of alternate cross pieces are aligned in rows while the portions of the yarn which are visible between the alternate cross pieces are aligned in rows and columns.

As shown in Fig. 6, the yarn may be intertwined through the apertures **20** in the matrix **14** so that the strands of yarn are spirally wound around the ribs **16**, the strands passing over the intersections of the ribs and cross pieces and crossing under the ribs between adjacent cross pieces in one column, as at **48**, and passing under the intersections of the ribs and cross pieces and crossing over the ribs between adjacent cross pieces in the next column, as at **50**.

Another embodiment of the invention is illustrated in Figs. 7 through 11, and is comprised of a floor covering, generally designated **110**, which includes a plurality of substantially flat, rectangular members **112** that are disposed in side-by-side and end-to-end relationship so as to form a substantially continuous floor covering. The floor covering **110** may be formed in one piece, as for example, in the form of a conventional rug, or the floor covering may also be comprised of a plurality of elongate carpet-like strips disposed in side-by-side relationship in the manner previously described. The members **112** are each comprised of a matrix **114** which may be made of plastic, rubber or other suitable material, preferably a resilient material, and the matrix **114** includes a plurality of elongate, spaced, substantially parallel ribs **116** and a plurality of spaced, substantially parallel cross pieces **118** which extend transversely of the ribs **116** and are preferably integrally joined thereto. The ribs **116** and the cross pieces **118** preferably intersect at substantially right angles and the ribs and cross pieces define a plurality of apertures **120** which are preferably aligned in rows and columns. As shown in Fig. 9, the upper surfaces **122** of the ribs are substantially co-planar and lie in a plane substantially parallel to the plane of the lower surfaces **124** of the ribs. As shown in Figs. 9 and 10, the upper surfaces **126** of alternate cross pieces **118** are substantially co-planar with the upper surfaces **122** of the ribs **116** while the lower surfaces **128** of such alternate cross pieces lie in a plane intermediate the planes of the upper and lower surfaces **122** and **124**, respectively, of the ribs **116**. The upper surfaces **130** of the remaining cross pieces lie in a plane intermediate the planes of the upper and lower surfaces **122** and **124** of the ribs **116** while the lower surfaces **132** of such remaining cross pieces are substantially co-planar with the lower surfaces **124** of the ribs **116**.

Strands of yarn **134**, which may be made of wool, cotton, synthetic fibers or other suitable material, are woven through the apertures **120** in a direction substantially parallel to the longitudinal axes of the ribs **116**. Since the lower surfaces **128** of alternate cross pieces are disposed between the planes of the upper and lower surfaces **122** and **124** of the ribs **116** while the upper surfaces **130** of the remaining transverse cross pieces are disposed in a plane between the planes of the upper and lower surfaces of the ribs **116**, the yarn may be woven so that it is disposed entirely between the planes of the upper and lower surfaces **122** and **124** of the ribs **116**. With such a construction, the upper surfaces **122** of the ribs **116** and the upper surfaces **126** of alternate cross pieces **118** project above the yarn **134** when the floor covering is installed on a floor and such surfaces serve as wear surfaces which serve to lengthen the life of the floor covering. At the same time, the lower surfaces **124** of the ribs **116** and the lower surfaces **132** of the remaining cross pieces **118** resiliently bear against the floor when the floor covering is installed, and such lower surfaces grip the floor to reduce the tendency of the floor covering to move relative to the floor. By varying the thickness of the matrix **114** and the distance which the rib and cross pieces project above and below the yarn, the resilience and the wearing characteristics of the floor covering may be controlled.

In order that the tile-like members **112** may be easily and quickly releasably fastened together in side-by-side and end-to-end relationship to form a complete floor covering, the outermost ribs **136** and the outermost cross pieces **138** of each member **112** are formed so as to be approximately one-half the thickness of the remaining ribs **116** and cross pieces **118**. When the members **112** are installed in side-by-side and end-to-end relationship, the side portions **42** and **44** of the previously described clips **40** are fitted over the reduced thickness peripheral ribs and cross pieces at a position near, but spaced from, the corners of the members **112** so as to secure the peripheral ribs and cross pieces in side-by-side relationship. The free ends of the clips **40** terminate below the upper surfaces of the peripheral ribs and cross pieces so as to be inobstrusive. When the members **112** are assembled in such a manner, individual or selected members **112** which may be subjected to excessive wear may be easily and quickly removed and replaced with a minimum of labor and expense. For example, members **112** disposed adjacent a door of a room may be transposed with other members **112** disposed in areas normally receiving less wear, thereby obviating the necessity of turning the entire floor covering and materially increasing the service life of the floor covering.

Another embodiment of the invention is illustrated in Figs. 12, 13 and 14 and is comprised of a matrix **150** which may be of any desired size and configuration, and which includes a plurality of equally spaced substantially parallel ribs **152** and a plurality of spaced substantially parallel cross pieces **154**, the cross pieces **154** intersecting the ribs **152** at substantially right angles and being integrally joined thereto. The ribs **152** and the cross pieces **154** define a plurality of apertures **156** which are preferably disposed in aligned rows and columns.

In this embodiment of the invention, the upper and lower surfaces **158** and **160** of the ribs **152** are disposed in spaced substantially parallel planes while the upper and lower surfaces **162** and **164** of the cross pieces are disposed in spaced substantially parallel planes which lie

between the planes of the upper and lower surfaces **158** and **160** of the ribs **152**. Strands of yarn **166**, which may be made of wool, cotton, synthetic fibers or other suitable material, are woven through the apertures **156**, the strands preferably extending in a direction substantially parallel to the longitudinal axes of the ribs **152**. The yarn **166** is preferably entirely disposed intermediate the planes of the upper and lower surfaces **158** and **160** of the ribs **152** so that the ribs project above and below the yarn when the floor covering is installed on a floor. With such a construction, the upper surfaces **158** of the ribs **152** serve as wear surfaces which protect the yarn and serve to increase the service life of the floor covering, while the lower surfaces **160** of the ribs **152** bear against the floor and grip the floor to reduce the tendency of the covering to slip on the floor. Such a construction also obviates the necessity of providing a pad between the covering and the floor, the resiliency of the floor covering and the wearing qualities thereof being controlled by varying the thickness of the matrix **150** and the distance the ribs **152** project above and below the yarn **166**.

While preferred embodiments of the invention have been shown and described, it will be understood that various changes and modifications may be made without departing from the spirit of the invention.

What is claimed is:

1. In a protective covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially coplanar edge-to-edge relationship, each of said members including a base formed of a resilient material, a strand of yarn-like material woven through said base, and clip means adapted to simultaneously engage the bases of adjacent members and releasably join said members in edge-to-edge relationship.

2. In a protective covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially coplanar edge-to-edge relationship, each of said members including a matrix formed of a resilient material and defining a plurality of apertures, and a strand of yarn-like material interlaced through said apertures, and clip means adapted to simultaneously engage the matrices of adjacent members and releasably join said members in edge-to-edge relationship.

3. In a protective covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially coplanar edge-to-edge relationship, each of said members including a matrix formed of a resilient plastic material and defining a plurality of apertures, a strand of yarn woven through said apertures, and clip means adapted to simultaneously engage the matrices of adjacent members and releasably join said members in edge-to-edge relationship.

4. A protective covering comprising, in combination, a plurality of relatively flat members adapted to be disposed in substantially co-planar edge-to-edge relationship, each of said members including a base formed of a resilient material and having a substantially flat surface on one side thereof, a strand of yarn-like material interlaced through said base, said yarn-like material compressing said base and becoming embedded therein when pressure is applied to said covering whereby the outermost portions of said yarn on said one side of said base are substantially co-planar with said wear surface, and means for releasably joining said members in edge-to-edge relationship.

5. In a protective covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially co-planar edge-to-edge relationship, each of said members including a relatively flat base formed on a resilient material and having a wear surface on one side thereof, a strand of yarn-like material interlaced through said base, said strand becoming embedded to said base when pressure is applied to said covering whereby the outermost portions of said yarn on said one side of said base are substantially co-planar with said wear surface, and means for releasably joining said members in edge-to-edge relationship.

6. In a protective covering, the combination comprising a plurality of relatively flat members adapted to be disposed in substantially co-planar edge-to-edge relationship, each of said members including a relatively flat matrix formed of a resilient material and defining a plurality of apertures, a strand of yarn-like material interlaced through said apertures, portions of said yarn normally overlying portions of the outer surfaces of said matrix, said yarn compressing said matrix and becoming embedded therein when pressure is applied to said covering whereby at least some of the wear is taken by said matrix, and means for releasably joining said members in edge-to-edge relationship.

7. In a protective covering, a relatively flat matrix, said matrix including a plurality of spaced ribs and a plurality of spaced cross pieces extending transversely of said ribs, said ribs and said cross pieces defining a plurality of apertures, at least one horizontal surface of each of said cross pieces being disposed intermediate the horizontal surfaces of said ribs, and a strand of yarn-like material woven through said apertures whereby at least some of the wear is taken by said horizontal surfaces of said ribs.

8. In a protective covering, a relatively flat matrix said matrix including a plurality of spaced substantially horizontal ribs and a plurality of spaced substantially horizontal cross pieces extending transversely of said ribs said ribs and said cross pieces defining a plurality of apertures, at least one horizontal surface of each of said cross pieces being disposed intermediate the upper and lower surfaces of said ribs, and a strand of yarn-like material woven through said apertures and disposed substantially between said upper and lower surfaces of said ribs.

9. In a protective covering, a plurality of relatively flat members adapted to be disposed in substantially coplanar edge-to-edge relationship, each of said members including a relatively flat matrix, each matrix including a plurality of spaced ribs having upper and lower surfaces and a plurality of spaced cross pieces having upper and lower surfaces and extending transversely of said ribs, said ribs and cross pieces defining a plurality of apertures in said matrix, at least one of said surfaces of each of said cross pieces being disposed between said upper and lower surfaces of said ribs, and a strand of yarn-like material interlaced through said apertures, said strand being disposed substantially between said upper and lower surfaces of said ribs.

10. In a protective covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially co-planar edge-to-edge relationship, each of said members including a relatively flat matrix, each matrix including a plurality of spaced ribs having upper and lower surfaces, and a plurality of spaced cross pieces extending transversely of said ribs and having upper and lower surfaces, said ribs and cross pieces defining a plurality of apertures in said matrix, at least one of said surfaces of each of said cross pieces being disposed between said upper and lower surfaces of said ribs, a strand of yarn-like material interlaced through said apertures, said strand being substantially disposed between said upper and lower surfaces of said ribs, and means for releasably joining said members in edge-to-edge relationship.

11. In a protective covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs, the upper surfaces of said ribs being substantially co-planar, said matrix also including a plurality of spaced cross pieces extending transversely of said ribs, said ribs and cross pieces defining a plurality of apertures in said matrix, the upper surfaces of alternate cross pieces being disposed below the plane of the upper surfaces of said ribs, and a strand of yarn-like material woven through said aper-

tures whereby said yarn is substantially disposed below said upper surfaces of said ribs.

12. In a protective covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs, the lower surfaces of said ribs being substantially co-planar, said matrix also including a plurality of spaced cross pieces extending transversely of said ribs, said ribs and cross pieces defining a plurality of apertures in said matrix, the lower surfaces of alternate cross pieces being disposed above the plane of the lower surfaces of said ribs, and a strand of yarn-like material woven through said apertures whereby said yarn is substantially disposed above said lower surfaces of said ribs.

13. In a floor covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper and lower surfaces of said cross pieces being disposed intermediate the planes of said upper and lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures extending through said matrix aligned in rows and columns, and a strand of yarn interlaced through said apertures, said strand being disposed substantially entirely between said upper and lower surfaces of said ribs.

14. In a floor covering, the combination including a plurality of relatively flat members adapted to be disposed in substantially co-planar edge-to-edge relationship, each of said members including a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper and lower surfaces of said cross pieces being disposed intermediate the planes of said upper and lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of aligned apertures in said matrix, a strand of yarn woven through said apertures, said strand being disposed substantially between said upper and lower surfaces of said ribs, and means for releasably joining said members in edge-to-edge relationship.

15. In a floor covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the upper and lower surfaces of said ribs lying in spaced planes, the upper surfaces of alternate cross pieces being substantially co-planar with the upper surfaces of said ribs, the lower surfaces of said alternate cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the upper surfaces of the remaining cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the lower surfaces of said remaining cross pieces being substantially co-planar with the lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures in said matrix, and a filamentous material woven through said apertures substantially between said upper and lower surfaces of said ribs.

16. In a floor covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper surfaces of alternate cross pieces being substantially co-planar with the upper surfaces of said ribs, the lower surfaces of said alternate cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the upper surfaces of the remaining cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the lower surfaces of said remaining cross pieces being substantially co-planar with the lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures in said matrix, and a strand of filamentous material interlaced through said apertures, said material being disposed substantially entirely between said upper and lower surfaces of said ribs.

17. In a floor covering, the combination including a plurality of relatively flat members adapted to be disposed in edge-to-edge relationship, each of said members including a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the lateral dimensions of the peripheral ribs and cross pieces being less than the lateral dimensions of the remaining ribs and cross pieces, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper surfaces of alternate cross pieces being substantially co-planar with the upper surfaces of said ribs, the lower surfaces of said alternate cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the upper surfaces of the other cross pieces being disposed intermediate said upper and lower surfaces of said ribs, the lower surfaces of said other cross pieces being substantially co-planar with the lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures in said matrix, a strand of filamentous material interlaced through said apertures, said material being disposed substantially entirely between said upper and lower surfaces of said ribs, and clip means engageable with said peripheral ribs and cross pieces and effective to releasably secure said members in edge-to-edge relationship.

18. In a floor covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the longitudinal axes of said ribs and cross pieces being substantially co-planar, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper and lower surfaces of said cross pieces lying in spaced substantially parallel planes disposed between the planes of said upper and lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures aligned in rows and columns, and a filamentous material interlaced through said apertures, said filamentous material being disposed substantially entirely between said upper and lower surfaces of said ribs.

19. In a floor covering, a relatively flat matrix formed of a resilient material, said matrix including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper and lower surfaces of said cross pieces lying in spaced substantially parallel planes disposed between the planes of the upper and lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of aligned apertures, and a filamentous material disposed in each of said apertures substantially between said upper and lower surfaces of said ribs.

20. In a floor covering, the combination including a plurality of relatively flat members adapted to be disposed in edge-to-edge relationship, each of said members including a relatively flat matrix formed of a resilient material, said base including a plurality of spaced substantially parallel ribs and a plurality of spaced substantially parallel cross pieces extending transversely of said ribs and integrally joined thereto, the lateral dimensions of the peripheral ribs and cross pieces being less than the lateral dimensions of the remaining ribs and cross

pieces, the upper and lower surfaces of said ribs lying in spaced substantially parallel planes, the upper and lower surfaces of said cross pieces lying in spaced substantially parallel planes disposed between the planes of the upper and lower surfaces of said ribs, said ribs and said cross pieces defining a plurality of apertures aligned in rows and columns, a filamentous material woven through said apertures, said filamentous material being disposed entirely between said upper and lower surfaces of said ribs, and clip means engageable with said peripheral ribs and cross pieces and effective to releasably secure said members in edge-to-edge relationship.

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