

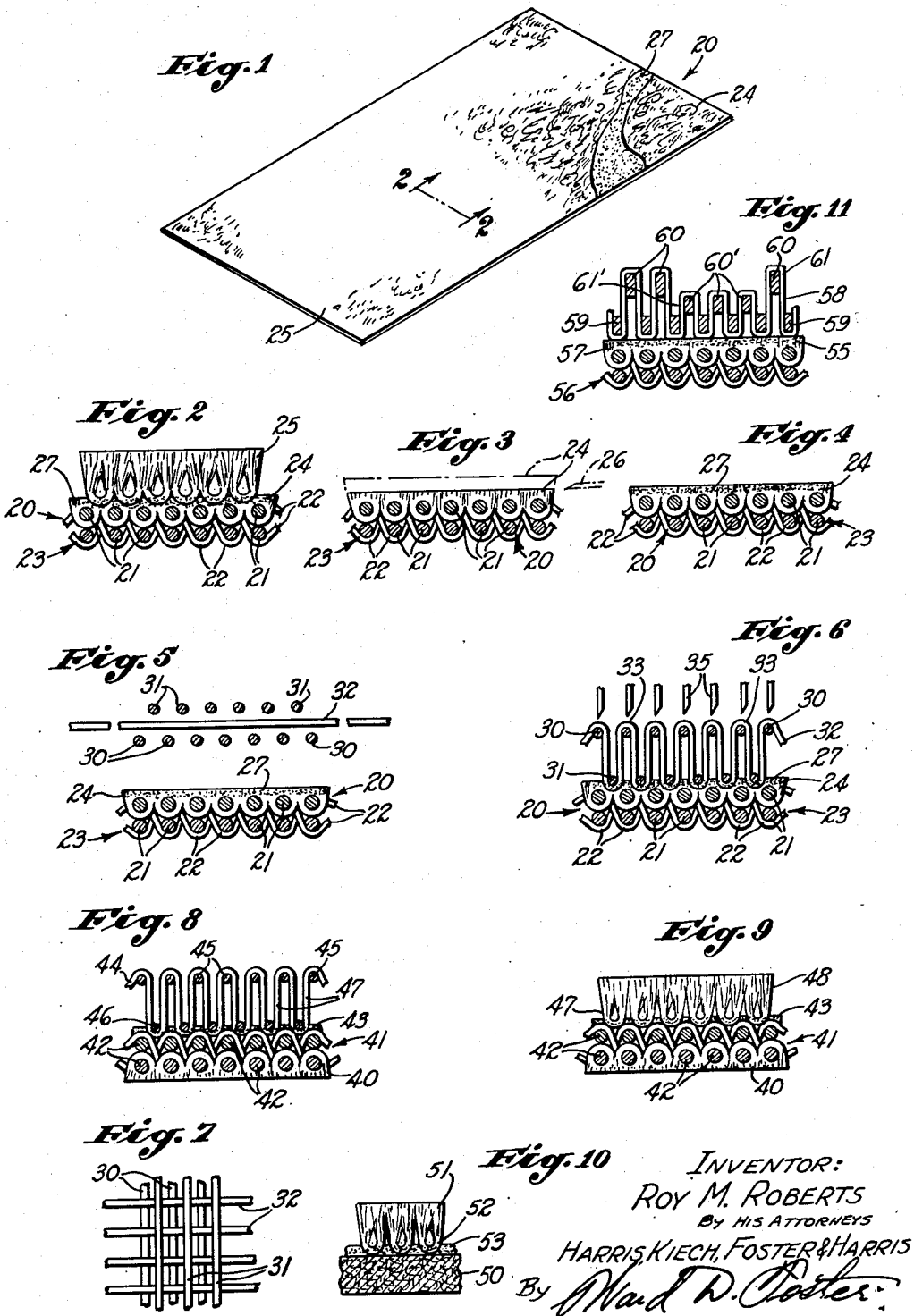
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CARPET AND METHOD OF MAKING SAME

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CARPET AND METHOD OF MAKING SAME

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My invention relates generally to the carpet and rug art and particularly to a method of and means for producing a nap or pile surface on a rug or carpet. More specifically, the invention pertains to a method of reclaiming worn rugs and carpets by applying a new nap, brushed pile or looped yarn surface to the existing nap or to the backing thereof.

The problem of maintaining rugs and carpets in good condition, that is, free from worn areas, is indeed a serious one, particularly where the floors of rooms, hallways and other areas are carpeted from wall to wall. In addition to the initial cost of the carpeting and the installation and upkeep thereof, such floor covering is subject to deterioration and wear, particularly in areas where considerable walking occurs, and the cost of repairing or replacing the entire carpeting or even portions thereof represents a large percentage of the upkeep or overhead costs, especially where the carpeting is used extensively in office buildings, hotels and other establishments.

In order to maintain upkeep costs at a minimum, it is the usual practice to renew or replace worn areas of the carpeting so as to avoid the necessity of purchasing an entirely new piece of carpet. When the worn portion is to be replaced by a new piece, it is necessary to remove the worn strip and sew a substitute length into the carpet. Such a procedure involves considerable time and requires the expert and costly services of workmen especially skilled in such work. In addition, the cost of the new strip of carpeting itself must be taken into consideration when deciding whether to repair or to replace the entire carpeting. Moreover, as will be apparent, it is extremely difficult, if not impossible, to effect a perfect matching so far as color is concerned so that the newly inserted strip of carpet is quite apt to be of noticeably different color tone than the remainder of the carpet, due to fading, and thus the general appearance of the floor covering is seriously impaired.

Another proposed method of repairing carpeting is to reweave those portions where the pile has worn down to or adjacent the foundation or backing. This laborious procedure has the disadvantage that it is expensive and further that mis-matching of colors is possible.

It is apparent from the foregoing that no completely satisfactory solution to the problem of renewing carpets and rugs has been proposed and adopted and for this reason the practice of patching, reweaving or replacing worn portions of the floor covering, or discarding the entire covering and laying a new one in its place now prevails.

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As a result, the maintaining of an attractive and serviceable floor covering, particularly at present day high prices, is a problem which has not heretofore been solved and which is of prime importance to home owners, as well as to the owners of hotels, office buildings and other establishments.

It is an important object of my invention to solve the problem discussed above by providing a method of and means for renewing the nap or pile surface of a rug or carpet in a practical, expeditious and economical manner so that the entire surface of the rug or carpet can be reproduced or restored to its original condition at a fraction of the cost of a new rug or carpet and at a cost which is less than that of repairing or replacing worn areas of the floor covering with new sections.

Another object of the invention is to provide a method of resurfacing a rug or carpet which consists generally in applying a new resilient surface, such as yarn loops or yarn pile, to the surface thereof by a bonding operation. In a preferred embodiment of the invention, I apply the new loops or pile to the existing pile of the rug or carpet to provide a new resilient surface throughout the entire area of the floor covering, and this is another important object of my invention. A further object in this respect is to provide an alternative method of and means for reclaiming worn rugs and carpets by applying a new resilient surface to the back or reverse side thereof, the new yarn surface being suitably bonded directly to the warp threads of the rug or carpet. When this latter method is employed, the original pile appearing on the obverse side of the floor covering may be cut off or allowed to remain so that when the carpet is laid with the newly surfaced side uppermost, the original pile surface will provide additional resiliency.

Another object is to provide a method of attaining the result outlined above in which the new loops or pile is effectively bonded to the original pile or to the foundation of the carpet preferably by a vulcanizing process, a film of latex being first applied to the carpet, the loops which are to form the pile then being pressed against the film, which is subjected to heat to cause the loops to become tenaciously bonded to the carpet fabric.

Another object and step in the over-all process of reclaiming rugs and carpets reside in the formation of the new pile surface, the present concept involving the procedure of laying a plurality of parallel weft or filling threads across the surface of the film or latex on the carpet to be resur-

faced, at right angles to the warp threads of the carpet, and over a series of warp wires or bars of small size extending parallel to said warp threads, lowering a second series of the warp wires, disposed above the first mentioned series, through the spaces between the warp wires of the first set to cause the weft threads to be looped alternately over and under the several warp wires, the lower portions of the loops being pressed downwardly into the latex film on the carpet by the second warp wires which then are heated to effect vulcanizing of the weft loops in place against the carpet fabric. By arranging the first warp wires at various heights above the carpet, the newly applied surface may have raised and depressed portions to produce a so-called "sculptured" design of selected motif. As is commonly done in the manufacture of pile fabrics, the upper bights of the weft loops may be cut by suitable means to cause the individual filaments of these threads to flare or fan outwardly to produce the velvety pile or Wilton finish, the cutting of the threads at this time facilitating removal of the warp wires. In other instances, the loops may remain uncut to form a so-called "round wire" or Brussels finish.

Another object of the invention is to provide a reclaimed carpet or rug in which a pile may be bonded either to the original pile of the fabric or to the back of the fabric.

A still further object is to provide a method of and means for producing a floor covering which consists of a woven or matted foundation or backing of flexible material and a pile tenaciously bonded to said backing material.

Further objects of the invention will appear from the following specification and from the drawing, which illustrates several embodiments of the invention, by way of example. In the drawing:

Fig. 1 is a perspective view of a rug or carpet having a renewed pile surface applied to the original pile of the carpet in accordance with the present method;

Fig. 2 is an enlarged cross-sectional view through a portion of the reclaimed carpet, taken on the line 2-2 of Fig. 1;

Fig. 3 is a similar cross-sectional view showing the original carpet before the application of the new pile surface, this view illustrating the step of cutting the original pile to reduce its height;

Fig. 4 is a view similar to Fig. 3 showing a film of latex applied to the original pile surface;

Fig. 5 is another cross-sectional view illustrating the step of placing the weft threads across the original pile surface and between two sets of warp wires;

Fig. 6 is a view similar to Fig. 5 showing one set of the warp wires in position to draw loops in the weft threads and to retain the lower bights of the loops in engagement with the film of latex during the vulcanizing process, this view further showing cutting means for severing the upper bights of the weft loops to complete the new pile surface;

Fig. 7 is a plan view of the warp wires and weft threads shown in Fig. 5;

Fig. 8 is a sectional view similar to Fig. 6 but illustrating the method of applying warp loops to the back or reverse side of a reclaimed rug or carpet;

Fig. 9 is a cross-sectional view through a rug or carpet made in accordance with the method disclosed in Fig. 8;

Fig. 10 shows a rug or carpet of further alternative structure; and

Fig. 11 is a view similar to Fig. 6 showing the method of applying a new sculptured surface directly to the original pile of a carpet.

As previously indicated, my invention is concerned primarily with a method of and means for reclaiming old rugs and carpets by applying thereto a new resilient pile or loop surface. It will become apparent from the following discussion, however, that the present concept is also applicable to the making of new floor coverings of certain types. In the following description, the term "carpet" is used in a broad sense to indicate any floor covering of a woven, matted or other resilient type having a foundation or backing and a pile or loop surface projecting from the backing.

Referring first to Fig. 3 of the drawing, the carpet 20, which is to be resurfaced, is herein shown as of conventional type having a multiplicity of parallel warp threads 21 under and between which the weft or filling threads 22 are looped, the interlocking structure of the warp threads providing the foundation or backing 23 of the carpet. V-shaped loops or tufts extend above the backing 23 to provide the pile surface which is indicated at 24 in Figs. 1 and 3.

Pile fabric of the type referred to immediately above is conventional and is used as a rug to cover part of a floor or as carpeting and extended from wall to wall of a room to conceal the entire floor thereof. In the latter case, the carpeting comprises a plurality of strips sewed together and is stretched across the floor and secured in this condition by tacking its margin or securing the same to fastening trips adjacent the baseboard of the room. As is well known, such carpeting will last indefinitely unless subjected to dampness, attacked by moths or used roughly. However, areas of the carpeting which are walked upon frequently by persons become worn, that is, the resilient pile surface wears down and eventually the foundation threads are exposed. It is, of course, desirable to avoid such excessive wearing away of the resilient surface so that the appearance and usefulness of the carpeting are not impaired, but the natural tendency is to delay repairing or replacement of the entire carpet or the worn portion thereof with the result that the carpet becomes unsightly, thus detracting from the appearance of the room and its furnishings. As previously pointed out, the usual procedures involved in repairing a worn section of a carpet are those of removing the worn section and replacing it with a new section or reweaving the worn portion to provide a new looped or pile surface. Such methods are quite complicated and costly and are not entirely satisfactory for the reason that the new piece of carpeting or the threads used in the reweaving may be different in color tone than those of the original carpet, due to fading, action of cleansing agents, etc. Consequently, the tendency is to discard the entire carpet and replace it with a new one, even though the unworn portions remain in good condition. In order to avoid such waste, discarded rugs and carpeting are sometimes reprocessed by cutting up the same and reweaving the material.

It is significant to note that in the majority of cases, the material of a worn carpet, particularly the backing thereof, remains serviceable and for this reason the discarding and destroying of the carpet backing represents, as will be shown, an unwarranted waste. The present invention provides a method of and means for reclaiming worn carpets and consists in applying a new looped surface or pile to the foundation or backing thereof so as to resurface the carpet.

In the preferred embodiment of the invention illustrated in Figs. 1 through 6, the new pile 25 is applied to the existing pile 24 of the carpet 20 by carrying out a method, the consecutive steps of which are shown in Figs. 3 to 6. Referring to Fig. 3, before applying the new pile 25, it may be desirable to make the existing pile of substantially uniform height, when possible, and this step may be carried out by passing the carpet through an apparatus in which one or more rotating or reciprocating knives 26 contact and cut the longer filaments of the existing pile 24 so that the carpet will be devoid of excessively long pile. In other words, the existing pile 24 may be cut down from the height indicated by dot-and-dash lines to that shown by full lines in Fig. 3. The fact that worn areas of the carpet may be devoid of any pile is not detrimental since in this case the new pile may be secured to the upper portions of the exposed warp threads 21. However, it is within the concept of my invention to first cut out the worn portion of the carpet and insert a patch having a pile thereon, prior to performing the cutting operation illustrated in Fig. 3.

After the carpet 20 has been processed as explained above, a layer or film of an adhesive 27 is applied directly to the pile 24 to cause the fibers or filaments thereof to be coated therewith, the adhesive 27 being designated by stippling in Figs. 1, 2, 4, 5 and 6. While various adhesives might be employed, I have determined that latex is especially suitable for the purpose. The latex 27 may be brushed, sprayed or otherwise applied, either manually or in a machine designed for the purpose.

Following the latex-applying step, the carpet is placed in a machine which includes two sets 30 and 31 of small rods or wires, hereinafter referred to as warp wires. The warp wires of the set or series 30 may be stationary while the wires of the other set 31 may be movable simultaneously in a vertical path. A plurality of woolen threads 32 are laid across the lower set of wires 30 as shown in Fig. 5, after which the warp wires 31 are lowered through the spaces between the wires 30 whereby to loop the threads 32 over and under the alternate warp wires 31 and 30 respectively. Thus, the threads 32 are formed into loops 33, the upper bights of these loops being retained by the wires 30 and the lower bights thereof being pressed down into the tacky film or coating 24 of latex.

At this juncture, the latex is subjected to heat to effect vulcanization thereof. The heat can be applied in any suitable manner and preferably is accomplished by the principle of induction heating, the warp wires 31 forming part of the induction circuit. By this means, the lower portions of the thread loops 33, which are at this time embedded in the layer of latex, are firmly vulcanized in place. That is, they are tenaciously bonded to the existing pile 24 which, in turn, is interlocked with the warp threads 21 of the carpet.

Following the vulcanization step of the method, the upper portions of the loops 33 may be cut so as to open the loops and provide V-shaped upstanding threads which provide the new pile 25. Preferably, the loops 33 are cut prior to removal of the warp wires 30 so that the latter can be withdrawn upwardly away from the carpet. The cutting may be accomplished by means of the knives 35, shown in Fig. 6, which may be either of the rotatable or reciprocating type. In other instances, it may be desired to produce a new surface composed of loops, instead of pile, and in

such event, the cutting operation is eliminated and the warp wires 30 are withdrawn horizontally from the formed loops 33.

When a new pile surface is being produced and the loops 33 have been severed, the upstanding ends of the applied pile threads may be brushed to fluff the same and thus provide a soft, resilient pile 25 which is comparable to the original pile 24 of the carpet. It has been determined that it is unnecessary to apply threads 32 of the same color as the original pile 24 of the carpet in order to avoid the occurrence of mismatching or contrast between portions of the new surface since the new surface is dense and effectively covers the old nap. However, if a less dense surface is applied the entire carpet may be dyed subsequently to the application of the new pile so as to insure uniformity of color. If a multi-color design is desired, the new surface may be printed by dyes either manually or in a machine designed for the purpose.

It has been determined that a carpet which is resurfaced in accordance with the method disclosed above is strong, durable and highly resilient and, since the resurfacing method can be carried out at a cost which is far below the price of a new carpet, the advantage of renewing rugs and carpets can be readily appreciated. It has also been found that due to the tenacious bonding of the new pile to the carpet, the new pile effectively resists forces which might tend to pull the threads from the carpet. In addition, the vulcanized latex further adds to the resiliency of the carpet and provides a protection against moths which might otherwise attack the warp threads of the carpet. Another advantage of resurfacing carpets by the foregoing method is that all seams which occur in the original carpeting, as is the case where the carpeting is composed of strips sewed together, are completely covered by the new surface. Consequently, a "broadloom" effect is produced and the appearance of the floor covering is greatly enhanced.

My invention further contemplates a method of reclaiming worn carpets by applying a pile surface to the under or reverse side thereof to adapt the carpet to be used in reverse position. The method of renewing a carpet by this alternative method is clearly shown in Figs. 8 and 9. In this case, the original pile 40 of the carpet 41 may be cut down to a substantially uniform height and the carpet then reversed, that is, placed bottom side up with the warp threads 42 uppermost. A layer or film of latex is then applied to the backing as indicated at 43 in Fig. 8, the latex filling the interstices and providing a continuous coating. Woolen threads 44 then are drawn across the backing 42 and between two spaced series of warp wires 45 and 46. The warp wires 46 are next lowered to form loops 47 in the threads 44 and to press the latter into the tacky coating 43 of latex. At this time, the latex is subjected to heat and thus caused to vulcanize so as to tenaciously bond the lower ends of the loops 47 to the backing 42. Following the vulcanizing step, the upper portions of the loops 47 may be cut and the upper ends of the V-shaped loops thus formed brushed to provide a smooth, resilient, velvety pile surface 48 on the reverse side of the carpet. In other cases, where a looped or Brussels surface is desired, the loops 47 are left uncut. It is thus seen that by this alternative method the new pile or looped covering is applied directly to the warp threads of the carpet to provide an entirely new surface. It will also

be apparent that since the old or original pile 40 is retained, when the carpet is in use and rests upon the floor or a rug cushion, additional resiliency is provided and this is a desirable feature.

As thus far described, the present invention is directed to the resurfacing of used rugs and carpets. However, it is further within the concept of my invention to apply the method to the making of new rugs and carpets. Referring to Fig. 10, the invention contemplates the provision of a floor covering which comprises a base or foundation 50, in the form of a sheet or pad of soft rubber, matted sisal, jute or other fibrous material. Applied to one or both surfaces of the pad 50 is a pile 51, preferably made from woolen threads 52, the individual V-shaped pile threads being applied to and vulcanized in place by the method previously outlined in connection with the carpet reclaiming process, a coating 53 of latex preferably being used as the binding agent. By this last-explained process, new rugs and carpeting can be manufactured at an extremely low cost since the weaving of warp and weft threads is unnecessary. The resulting rug or carpet is highly resilient, strong and durable in use, and since its cost is low, when it becomes worn it can be replaced by another at a reasonable figure.

It is within the concept of this invention to provide a method of reclaiming worn rugs and carpets in which the applied resilient surface has a bas-relief or sculptured effect. The method of producing such sculptured designs is illustrated in Fig. 11 wherein the new surface is shown as applied directly to the original nap or pile 55 of a rug or carpet 56. As in the process illustrated in Figs. 1 to 6, a coating 57 of a suitable adhesive, such as latex, is applied to the pile 55, after which woolen threads 58 are passed laterally between sets of warp bars 59 and 60. The bars 59 are then lowered to draw the threads 58 downwardly in loops, the lower bights of which are embedded in the tacky latex coating. By applying heat, these lower bights are caused to be vulcanized to the pile 55 of the carpet 56.

It is to be particularly noted by reference to Fig. 11 that certain of the warp bars 60 are arranged at a lower level, that is, closer to the pile 55, these bars being designated by the reference numeral 60'. By this means, the formed loops are of different heights, the longer loops being indicated at 61 and the shorter loops being shown at 61', so that any desired relief pattern can be produced by controlling the setting of the bars 60, 60'. After the loops 61, 61' have been bonded to the pile 55, the warp bars are withdrawn from the loops. When a new pile surface is desired, the warp bars 60, 60' may be provided with upstanding knives (not shown) which act to sever the upper bights of the loops 61, 61' as they are withdrawn lengthwise so as to produce upstanding threads which may be subsequently brushed to provide a soft, fluffy pile or nap. The method of producing sculptured surfaces of either the Wilton or Brussels type disclosed in Fig. 11 may, of course, be incorporated in the methods illustrated in Figs. 6, 9 and 10.

While I have herein disclosed several preferred embodiments of the invention, by way of example, it will be apparent that various modifications might be made in the product and in the method of producing the same without departing from the spirit of the invention. Consequently, I do not wish to be limited in this respect, but desire to be afforded the full scope of the appended claims.

I claim as my invention:

1. A resilient floor covering, comprising: a pile base; and a multiplicity of resilient loops secured individually and solely by an adhesive bonding material to said base and having free ends projecting from a surface thereof.
2. A resilient floor covering, comprising: a sheared pile base; and a multiplicity of resilient, V-shaped pile threads having their apices secured individually and solely to said base by an adhesive bonding agent and having free ends projecting from a surface thereof.
3. A resilient floor covering, comprising: a sheared pile base; a layer of an adhesive bonding material on said base; and a multiplicity of threads having looped portions individually embedded in said material and free ends projecting from said material and together providing a resilient surface, said adhesive bonding material being the sole means for securing said threads individually to said base.
4. A resilient floor covering, comprising: a sheared pile base; a layer of thermosetting adhesive material secured to said base; and a multiplicity of pile threads having loop portions embedded in and secured individually and solely by said material to said base, said threads having free ends projecting from said material and providing a pile surface.
5. A resilient floor covering, comprising: a sheared pile base; a layer of bonding material vulcanized to said base; and a multiplicity of pile threads having loop portions embedded in and secured to said base individually and solely by said material, said threads having free ends projecting from said material and collectively providing a pile surface.
6. A resilient floor covering, comprising: a reticulated base having foundation threads and primary pile threads interlocked with said foundation threads and projecting therefrom and providing a primary pile surface; a bonding material carried by said primary pile threads; and a multiplicity of secondary pile threads having portions embedded in said bonding material and free ends projecting therefrom and providing a secondary pile surface superimposed on said primary pile surface.
7. A resilient floor covering, comprising: a reticulated base having foundation threads and sheared primary looped pile threads interlocked with said foundation threads and having free ends projecting therefrom and providing a primary sheared pile surface; a bonding material carried by said primary pile threads; and a multiplicity of secondary looped pile threads having portions embedded in said bonding material and free ends projecting therefrom and providing a secondary pile surface superimposed on said primary pile surface.
8. A resilient floor covering, comprising: a reticulated base having foundation threads and sheared primary pile threads interlocked with said foundation threads and projecting therefrom and providing a primary pile surface; a layer of bonding material vulcanized to said primary pile threads; and a multiplicity of secondary pile threads having portions embedded in said bonding material and free ends projecting therefrom and providing a secondary pile surface superimposed on said primary pile surface.
9. A resilient floor covering, comprising: a reticulated base having foundation threads and sheared primary pile threads interlocked with said foundation threads and projecting therefrom

and providing a primary pile surface; a layer of bonding material vulcanized to said primary pile threads and said foundation threads; and a multiplicity of secondary pile threads having portions embedded in said bonding material and free ends projecting therefrom and providing a secondary pile surface superimposed on said primary pile surface, said secondary pile threads being of varying selected lengths.

10. A resilient floor covering, comprising: a reticulated base having foundation threads and primary pile threads interlocked with said foundation threads and projecting from a side thereof and providing a primary pile surface having warp threads; a bonding material disposed on the opposite side of said warp threads; and a multiplicity of secondary pile threads having portions bonded to said foundation threads at said opposite side thereof by said bonding material and free ends projecting from said opposite side and providing a secondary pile surface.

11. A resilient floor covering, comprising: a reticulated base having foundation threads and primary pile threads interlocked with said foundation threads and projecting from a side thereof and providing a primary pile surface having warp threads; a bonding material disposed on the opposite side of said warp threads; and a multiplicity of secondary V-shaped pile threads having loop portions bonded to said foundation threads at said opposite side thereof by said bonding material and free ends projecting from said opposite side and providing a secondary pile surface.

12. A resilient floor covering, comprising: a reticulated base having foundation threads and primary pile threads interlocked with said foundation threads and projecting from a side thereof and providing a primary pile surface; a bonding material vulcanized to the opposite side of said foundation threads; and a multiplicity of secondary V-shaped pile threads having loop portions embedded in said bonding material and free ends projecting from said opposite side and providing a secondary pile surface.

13. A method of making a pile fabric, comprising the step of vulcanizing a multiplicity of resilient thread loops individually to a surface of a sheared pile base with the ends of the loops projecting therefrom and collectively providing a pile surface.

14. A method of making a pile fabric, comprising the steps of: applying a vulcanizable material to a surface of a pile base; embedding the loop portions of a multiplicity of V-shaped threads individually in said material with the free ends of the threads projecting from said base to collectively provide a pile surface; and vulcanizing said material to retain said loop portions of said threads connected to said base individually and solely by said material.

15. A method of reclaiming a floor covering having a base and a pile projecting from the base, comprising the step of bonding a multiplicity of threads to the pile of the covering with ends of said threads projecting from the pile and providing a pile surface superimposed on the pile of the floor covering.

16. A method of reclaiming a floor covering having a base and a pile projecting from the base, comprising the step of vulcanizing a multiplicity of threads to the pile of the covering with free ends of said threads projecting from the pile and providing a pile surface superimposed on the pile of the floor covering.

17. A method of reclaiming a floor covering

having a base and a pile projecting from the base, comprising the steps of: applying a coating of vulcanizable material to the pile of the floor covering; embedding threads in said material with portions of said threads projecting from the pile and providing a resilient surface superimposed on said pile; and vulcanizing said material to retain said threads connected to said pile of said floor covering.

18. A method of reclaiming a floor covering having a base and a pile projecting from the base, comprising the steps of: applying a coating of vulcanizable material to the pile of the floor covering; embedding looped portions of V-shaped threads in said material with free ends of said threads projecting from the pile and providing a pile surface superimposed on said pile; and vulcanizing said material to retain said threads connected to said pile of said floor covering.

19. A method of reclaiming a woven floor covering, comprising the steps of: applying a coating of vulcanizable material to a surface of the floor covering; embedding the loop portions of V-shaped threads individually in said material with free ends of said threads projecting therefrom and providing collectively a resilient surface superimposed on said floor covering; and vulcanizing said material to retain said threads connected to said floor covering individually and solely by said material.

20. A method of reclaiming a woven floor covering, comprising the steps of: applying a coating of vulcanizable material to a surface of the floor covering; embedding looped portions of V-shaped pile threads individually in said material with free ends of said threads projecting therefrom and collectively providing a pile surface superimposed on said floor covering; and vulcanizing said material to retain said pile threads connected to said floor covering individually and solely by said material.

21. A method of reclaiming a woven floor covering having foundation threads and pile threads, comprising the steps of: cutting the pile threads to a substantially uniform height; applying a coating of vulcanizable material to the cut pile threads; embedding the loop ends of V-shaped pile threads in said material with free ends of said last-named threads projecting from said pile threads of said floor covering and providing a pile surface superimposed thereon; and vulcanizing said material to retain said V-shaped pile threads connected to the pile threads of the floor covering.

22. A method of reclaiming a woven floor covering having foundation threads and pile threads, comprising the steps of: applying a bonding material to the pile threads; placing the floor covering beneath two sets of parallel warp wires, one of said sets being movable toward and away from the floor covering; placing parallel threads between said sets of wires; moving said movable set of wires relative to the other set of wires to cause said placed threads to become looped and to embed the lower portions of the loops in said bonding material; applying heat to set said bonding material so as to retain the loops of the placed threads connected to the pile threads of the floor covering; and cutting the upper portions of the loops to provide the placed threads with upwardly projecting free ends collectively providing a pile surface.

23. A method of reclaiming a woven floor covering having foundation threads and pile threads, comprising the steps of: applying a bonding ma-

terial to the pile threads; placing the floor covering beneath two sets of parallel warp wires, one of said sets being movable toward and away from the floor covering; placing parallel threads between said sets of wires; moving said movable set of wires relative to the other set of wires to cause said placed threads to become looped and to embed the lower portions of the loops in said bonding material; applying heat to set bonding material so as to retain the loops of the placed threads connected to the pile threads of the floor covering; and removing both sets of warp wires from said loops.

24. A method of reclaiming a woven floor covering having foundation threads and pile threads, comprising the steps of: applying a vulcanizable material to the pile threads; placing the floor covering beneath two sets of parallel warp wires, one of said sets being movable toward and away from the floor covering; placing parallel threads between said sets of wires; moving said warp wires of said movable set selected varying distances relative to the other set of wires to cause said placed threads to become looped and to embed the lower portions of the loops in said bonding material; applying heat to vulcanize said material so as to retain the loops of the placed threads connected to the pile threads of the floor covering; and cutting the upper portions of the loops to provide the placed threads with upwardly projecting free ends collectively providing a pile surface having a selected relief pattern.

25. A method of reclaiming a woven floor covering having foundation threads and pile threads projecting from a side thereof, comprising the steps of: applying a vulcanizable material to the foundation threads at the side of the floor covering opposite to that from which the pile threads project; placing the floor covering beneath two

sets of parallel warp wires with the coated side uppermost, one of said sets of wires being movable toward and away from the floor covering; placing parallel threads between said sets of wires; moving said movable set of wires relative to the other set of wires to cause said placed threads to become looped and to embed the lower portions of the loops in said material; applying heat to vulcanize said material so as to retain the loops of the placed threads connected to the foundation threads of the floor covering; and cutting the upper portions of the loops to provide the placed threads with upwardly projecting free ends collectively providing a pile surface.

26. A method for producing a pile fabric comprising coating a backing material with adhesive, placing the backing with the coating upon it beneath two sets of parallel wires, the wires of said upper set being movable toward and away from the backing, placing parallel threads between and at right angles to said sets of wires, moving the wires of said movable set toward the backing to cause said placed threads to become looped over the second set of wires and to embed the lower portions of the loops in said adhesive coating, and cutting the portions of the threads over the second of said sets of wires while retaining the depressed portions of the threads embedded in the adhesive coating.

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