June 9, 1959 K. B. MILNES 2,890,145

CARPET SEAMING TAPE

Filed Aug. 19, 1958

Fig. 1.

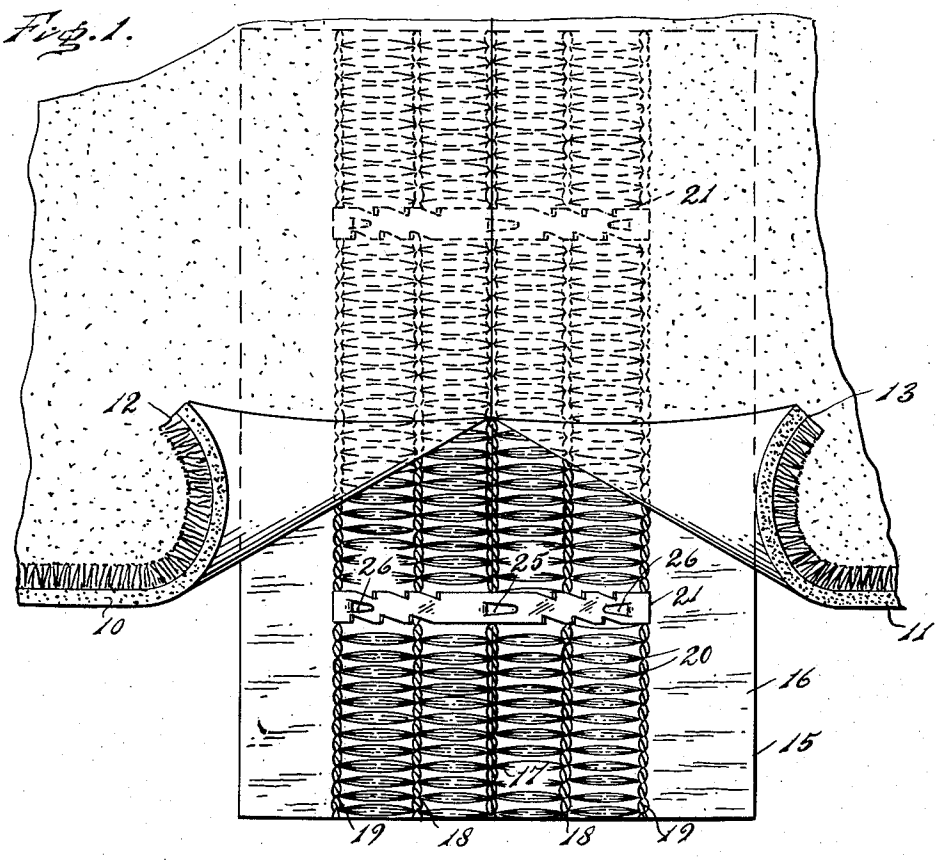


Fig. 2.

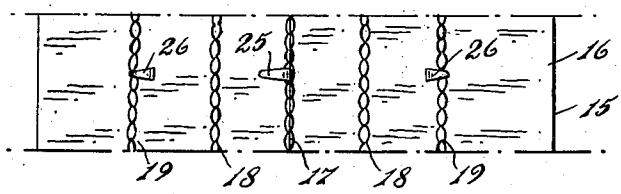


Fig. 3.

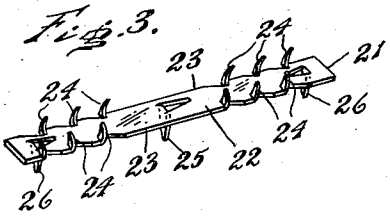
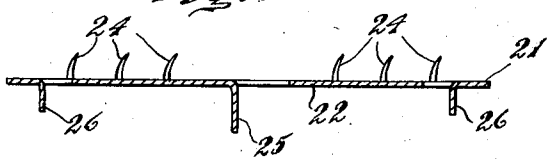


Fig. 4.



INVENTOR
Kenneth B. Milnes
BY
ATTORNEY

United States Patent Office 2,890,145 Patented June 9, 1959

2,890,145

CARPET SEAMING TAPE

Kenneth B. Milnes, Meadowbrook, Pa.

Application August 19, 1958, Serial No. 756,040

4 Claims. (Cl. 154—49)

This invention relates to carpet seaming tape and more particularly to a tape for joining the edges of pile carpeting to provide a seamless appearance on the upper face.

Various tapes and the like have heretofore been proposed for joining the edges of pile carpeting from below, but none of these has proven wholly satisfactory. With certain of the prior seaming tapes, the floor beneath the tape was damaged or scored or had objectionable deposits of adhesive thereon. With other prior seaming tapes there was insufficient absorption of or adherence of the adhesive to the carpeting and to the tape so that a strong joint was not provided. With other prior seaming tapes an excessive time was required for drying of the adhesive applied between the tape and the carpeting.

It is the principal object of the present invention to provide a carpet seaming tape capable of rapid production on available equipment and which is free from the objectionable features of prior carpet joining tapes.

It is a further object of the present invention to provide a carpet seaming tape having the components thereof assembled in an improved manner.

It is a further object of the present invention to provide a carpet seaming tape which can be employed for direct mounting of the edges of the carpet thereon and without the necessity for turning the carpet over after joining the edges.

Other objects and advantageous features of the invention will be apparent from the description and claims.

The nature and characteristic features of the invention will be more readily understood from the following description, taken in connection with the accompanying drawings forming part thereof, in which:

Figure 1 is a top plan view of a piece of the carpet seaming tape in accordance with the invention showing the mode of use thereof;

Fig. 2 is a rear elevational view of the carpet seaming tape shown in Fig. 1;

Fig. 3 is a view in perspective of one of the cleats employed on the tape; and

Fig. 4 is a longitudinal central sectional view of the cleat shown in Fig. 3.

It should, of course, be understood that the description and drawings herein are illustrative merely, and that various modifications and changes may be made in the structure disclosed without departing from the spirit of the invention.

Like numerals refer to like parts throughout the several views.

Referring now more particularly to the drawings, two strips of floor covering **10** and **11** of woven pile fabric are shown, having edges **12** and **13** which are to be held in assembled relation on a floor.

The tape in accordance with the present invention is shown generally at **15**, the strips **10** and **11** being in substantially equally overlapped relation thereto upon the completion of the seaming.

The tape **15** preferably includes an elongated backing strip **16** of paper, kraft paper transversely creped, being

preferred because of its elasticity along the longitudinal axis. Creped kraft paper of a weight of the order of 45 pounds per ream has been found suitable.

The strip **16** can be of any desired width, one specific embodiment being of a width of the order of four inches.

A warp knit fabric is provided preferably having a central line of chain stitches **17**, and spaced parallel inner and outer lines of chain stitches **18** and **19** on each side thereof. The chain stitches **17** are preferably of contrasting color, such as black, with respect to the lines of chain stitches **18** and **19**, which can be white in color, so that the central line **17** can serve as a gauge line for application of the carpet strips **10** and **11**.

The yarns from which the lines of chain stitches **17, 18** and **19** are made can be of nylon, rayon or other twisted fibrous material yarns of about 600 denier having been found satisfactory.

Filling strands **20**, transversely disposed on the upper face of the paper strip **16** are incorporated into and bound by the lines of chain stitches **17, 18** and **19** in the warp knitting operation, and may be of any desired material, and are preferably of rayon, although fiberglass, cotton, or jute can be employed. The filling strand **20** can be of zero twist to enhance absorption, and two strand per stitch 1650 denier yarns have been found suitable. Yarns of 1150 denier have also been found to produce a satisfactory result.

It will be noted that the lines of chain stitches **17, 18,** and **19** extend through the paper backing strip **16** in engagement therewith, so as to be visible on the back or lower face of the strip **16**, the paper strip **16** being supplied to the warp knitting apparatus so that the lines of stitches **17, 18** and **19** hold the filling strands **20** in firm engagement with the strip **16**.

At spaced intervals along the outer face of the filling strand **20**, cleats **21** are provided, preferably of thin resilient sheet metal. The cleats **21** have body portions **22** of a length of the order of two and one half inches, or slightly more than the distance between the outer lines of chain stitches **19** and are provided along their side marginal edges **23** with struck up points **24**. The points **24** along one side edge **23** can face or be inclined slightly in one longitudinal direction while the points **24** along the opposite side edge **23** can face or be slightly inclined in the opposite longitudinal direction.

The body portions **22** have struck downwardly therefrom, preferably at locations corresponding to the central line of stitches **17** and the outer lines of stitches **19**, gripping tongues **25** and **26**, which extend downwardly through the strip **16** and under and in holding engagement with the portions of the lines of stitches **17** and **19** which are exposed on the back or under face of the strip **16**. The terminal ends of the tongues **25** are disposed upwardly or away from the under or lower face of the strip **16** so as not to project in scratching engagement with the floor.

In use, the seaming tape **15** constructed as described, is placed with its lower face or back on the floor at the location where the edges **12** and **13** of the strips **10** and **11** are to be secured together.

A suitable adhesive, which can have a base of rubber, natural or synthetic, in a suitable evaporative solvent is applied as a band to the upper face of the tape **15** in the area between the outer lines of stitches **19**, and the carpet strips **10** and **11** are applied thereon with their edges **12** and **13** in meeting relation. The points **24** will engage in the pile fabric from below and aid in preventing separation of the edges **12** and **13**, or creeping of the tape **15** during drying of the adhesive and subsequently.

With the construction described, ample absorptive area for the adhesive is provided on the upper face of the tape **15** with tendency to deposit adhesive onto the floor

being minimized. The cleats **21**, in firmly gripped engagement with the strip **16**, do not have any portions which would tend to scratch or mar the floor while at the same time an effective grip on the pile fabric is effected by the upstanding points **24**.

I claim:

1. A carpet seaming tape comprising an elongated paper strip, a plurality of spaced parallel longitudinally extending lines of chain stitches, a continuous transversely disposed filling yarn on the upper face of said strip, said lines of chain stitches being in holding engagement with said filling yarn and said paper strip, and a plurality of spaced transverse cleats overlying said filling and extending between the outermost lines of chain stitches, said cleats having body portions and a plurality of gripping tongues extending through said strip each in gripping engagement with one of said lines of stitches.

2. A carpet seaming tape comprising an elongated paper strip, a plurality of spaced parallel longitudinally extending lines of chain stitches, a continuous transversely disposed filling yarn on the upper face of said strip, said lines of chain stitches being in holding engagement with said filling yarn and said paper strip, and a plurality of spaced transverse cleats overlying said filling and extending between the outermost lines of chain stitches and in engagement with said paper strip, said cleats having body portions with upstanding points and a plurality of gripping tongues extending through said strip each in gripping engagement with one of said lines of stitches.

3. A carpet seaming tape comprising an elongated transversely creped paper strip, a central longitudinal line and inner and outer parallel longitudinally extending lines of chain stitches, a continuous transversely disposed filling yarn on the upper face of said strip, said lines of chain stitches being in holding engagement with said filling yarn and said paper strip, and a plurality of spaced transverse cleats overlying said filling and extending between the outermost lines of chain stitches and in engagement with said paper strip, said cleats having body portions with upstanding points and a plurality of gripping tongues extending through said strip, certain of said tongues being in gripping engagement with the central line of stitches.

4. A carpet seaming tape comprising an elongated transversely creped paper strip, a central longitudinal line and inner and outer spaced parallel longitudinally extending lines of chain stitches, a continuous transversely disposed filling yarn on the upper face of said strip, said lines of chain stitches being in holding engagement with said filling yarn and said paper strip, and a plurality of spaced transverse cleats overlying said filling and extending between the outermost lines of chain stitches, said cleats having body portions with upstanding points and a plurality of gripping tongues extending through said strip, certain of said tongues being in gripping engagement with the central line of stitches and others of said tongues being in gripping engagement with the outer lines of stitches.

References Cited in the file of this patent

UNITED STATES PATENTS

605,978	Shepherd	June 21, 1898
2,552,114	Reinhard	May 8, 1951
2,727,295	Wright	Dec. 20, 1955