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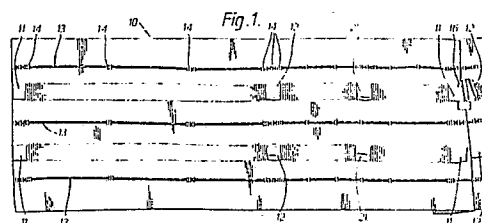
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⑤ Tapes.

⑤ There is disclosed a tape (10) for forming a pleat, the tape (10) being provided with at least one portion for forming into a pleat together with locking means (11, 12) for use in locking the pleat in position. A clip (16) is also disclosed for co-operating with the locking means (11, 12) of the tape (10) to lock the pleat in position. A length of the tape (10) usually attached to a curtain is concertinad, typically by drawstrings (13) in the tape, (10) into a tightly bunched form where the locking means (11, 12) end up closely adjacent to one another. The pleat can therefore be locked in position by connecting the locking means (11, 12) together by using the clip (16) or some other means.



Description

TAPES

The invention relates to tapes, for example heading tapes for attachment to the head of a curtain.

Such tapes are well known, and can be used for the placement of hooks to hang a curtain, for the attachment of a curtain lining, and for use in forming the curtain into pleats.

One type of pleat is known as a pinch pleat in which a length of tape, together with any curtain attached thereto, is concertinaded to form a tight prominent pleat. Although draw strings may be provided to assist in forming the pleat, the draw strings cannot provide sufficient friction to lock such a tight, prominent pleat in position, and until now, it has been necessary to actually stitch the pleat into position after it has been formed. This means that it has been difficult or impossible to provide pinch pleat curtains on a ready made basis. The curtains usually have to be made to order, from detailed information provided by a purchaser about the number and positioning of the pleats. Alternatively, the purchaser has to arrange their own pleats and sew them into position.

We have now developed a heading tape which solves the problem of to rapidly forming pinch pleats and rapidly locking the pleats in position, without having to carry out a stitching operation or use any special tools.

Accordingly, our invention provides a tape for forming a pleat, the tape being provided with at least one portion for forming into a pleat and means for use in locking the pleat into position.

Preferably the pleat has the form known as a pinch pleat.

The said portion may be provided with at least one draw string for use in forming the pleat.

The means for locking the pleat into position preferably comprises a pair of formations on the tape, one at each side of the pleat, for interconnection to lock the pleat into position.

Each formation may comprise a loop or pocket.

The invention includes the tape in combination with means for interconnecting the formations.

The interconnecting means may comprise a clip having a pair of arms, each arm being engageable with one of the formations, and the two arms being connected together.

The clip may be substantially U-shaped. Preferably the ends of the arms are hooked, to assist in retaining the clip in position, once it has been engaged with the formations.

The connecting means may however have any desired configuration which is suitable to engage with the formations to lock the pleat in position. It may for example comprise a ring, loop, string, catch or any other such device.

The invention includes connecting means suitable for use in interconnecting the formations to lock the pleat in position.

The invention includes a method for forming a pleat, comprising the steps of providing a tape

having at least one portion for forming into a pleat, and a pair of formations, one at each side of the said portion, forming the said portion into a pleat, and then locking the pleat into position by interconnecting the said formations.

By way of example, a specific embodiment of the invention will now be described with reference to the accompanying drawings, in which :-

Figure 1 is a front view of a length of tape according to the invention having a pinch pleat locked into position using interconnecting means according to the invention;

Figure 2 is a diagrammatic plan view of a length of the tape, showing one pleat in the process of formation and another completed pleat; and

Figure 3 is a perspective view of an embodiment of interconnecting means according to the invention.

The tape forming the subject of this embodiment is a woven tape illustrated generally at 10 in Figure 1.

Groups of bottomless pockets are provided at intervals along the length of the tape by allowing certain threads to float during the weaving process. The two groups 11 and 12 shown in Figure 1 lie on each side of a portion of tape which is formed to facilitate the formation of a pinch pleat. Three draw strings 13 are provided which are only interwoven with the tape, over the relevant length of the tape, at four locations 14. Each draw string is identically arranged and so the following operation will be described as though there were only one draw string.

The operation of forming a pinch pleat will be best understood from an examination of Figure 2, which is a plan view of the tape. It will be seen from an examination of Figure 2, that if the draw strings 13 are tightened, the pleat tends to concertina into a pleat having three portions 15. The commencement of pleating operation can be seen at the left hand side of Figure 2, and at the right hand side can be seen a completed pleat, in which the portions of the pleat are tightly compressed against one another.

Although the interweaving of the draw strings with the tape produces a certain amount of friction, this would be insufficient to hold the pleat in the tightly bunched form shown at the right hand side of Figure 2. The pleat would gradually work loose unless it was actually stitched into position.

With the embodiment of tape according to the invention however, the pockets 11 and 12 end up closely adjacent to one another, after the pleat has been formed. The pleat can therefore be locked in position by inserting a specially designed clip into the pockets 11 and 12, as shown with the pleat at the right hand side of Figure 1. The clip is indicated generally by the reference numeral 16.

The clip is shown in detail in Figure 3. It comprises two arms 17 and 18 interconnected by a cross member 19. The ends of the arms are hooked at 20. The clip is attached to the tape by inserting the

hooked ends 20 respectively into the pockets 11 and 12 and then rotating the clip so that the hook portions 20 slide through the pockets 11 and 12 until the arms 17 and 18 engage in the pockets, as shown at the right hand side of Figure 1. The hooked portion 20 assist in retaining the clip in position, so that it does not drop out.

A single hook may be used, or alternatively both pairs of pockets 11 and 12 can be interconnected by a clip. Figure 1 shows the lower pair of pockets unconnected.

It should be appreciated that each group of pockets 11 and 12, together with the intervening draw string connection points 14, repeat themselves along the length of the tape.

Between each such grouping, a further group of pockets 21 is arranged. Each group of pockets 21 is available for use in hooking the tape to a curtain rail and/or hooking a lining to the tape.

The clip 16 shown in the Figures is constructed of metal, but any desired material may be used, for example plastics material, and the clip may have any desired formation which is sufficient to hold together the pockets 11 and 12 and thus lock the pleat in position.

Although a specially, woven tape is provided in this embodiment it is possible to use the clip in combination with conventional tape, if it has appropriately positioned pockets.

The contents of all papers and documents filed concurrently with this specification are incorporated herein by reference.

All of the features disclosed in this specification (including any accompanying claims, abstract and drawings), and/or all of the steps of any method or process so disclosed, may be combined in any combination, except combinations where at least some of such features and/or steps are mutually exclusive.

The invention is not restricted to the details of the foregoing embodiment(s). The invention extends to any novel one, or any novel combination, of the features disclosed in this specification (including any accompanying claims, abstract and drawings), or to any novel one, or any novel combination, of the steps of any method or process so disclosed.

Claims

1. A tape (10) for forming a pleat, the tape being provided with at least one portion for forming into a pleat, characterised in that the tape has locking means (11,12) for use in locking the pleat into position.

2. A tape as claimed in Claim 1, having means (16) for co-operating with the locking means (11,12) to lock the pleat in position.

3. A tape as claimed in Claim 2, in which the means for co-operating with the locking means comprises a clip (16) having a pair of arms (17,18), each arm being adapted to co-operate with the locking means, the two arms being connected together.

4. A tape as claimed in Claim 3 in which the

clip (16) is substantially U-shaped.

5. A tape as claimed in Claims 3 or 4 in which the arms (17,18) of the clip are hooked (20).

6. A tape as claimed in any one of the preceding Claims in which the locking means comprises a pair of formations (11,12) on the tape, one at each side of the pleat.

7. A tape as claimed in Claim 6, in which the formations comprise loops or pockets (11,12).

8. A tape as claimed in any of the preceding Claims, having at least one drawstring (13) for use in forming the pleat.

9. A tape as claimed in any of the preceding Claims in which the pleat to be formed is a pinch pleat.

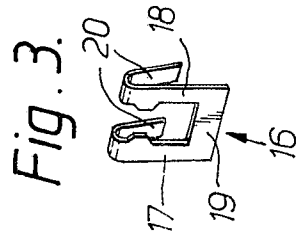
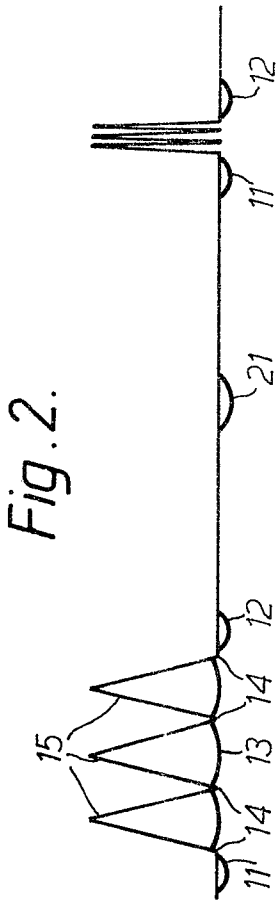
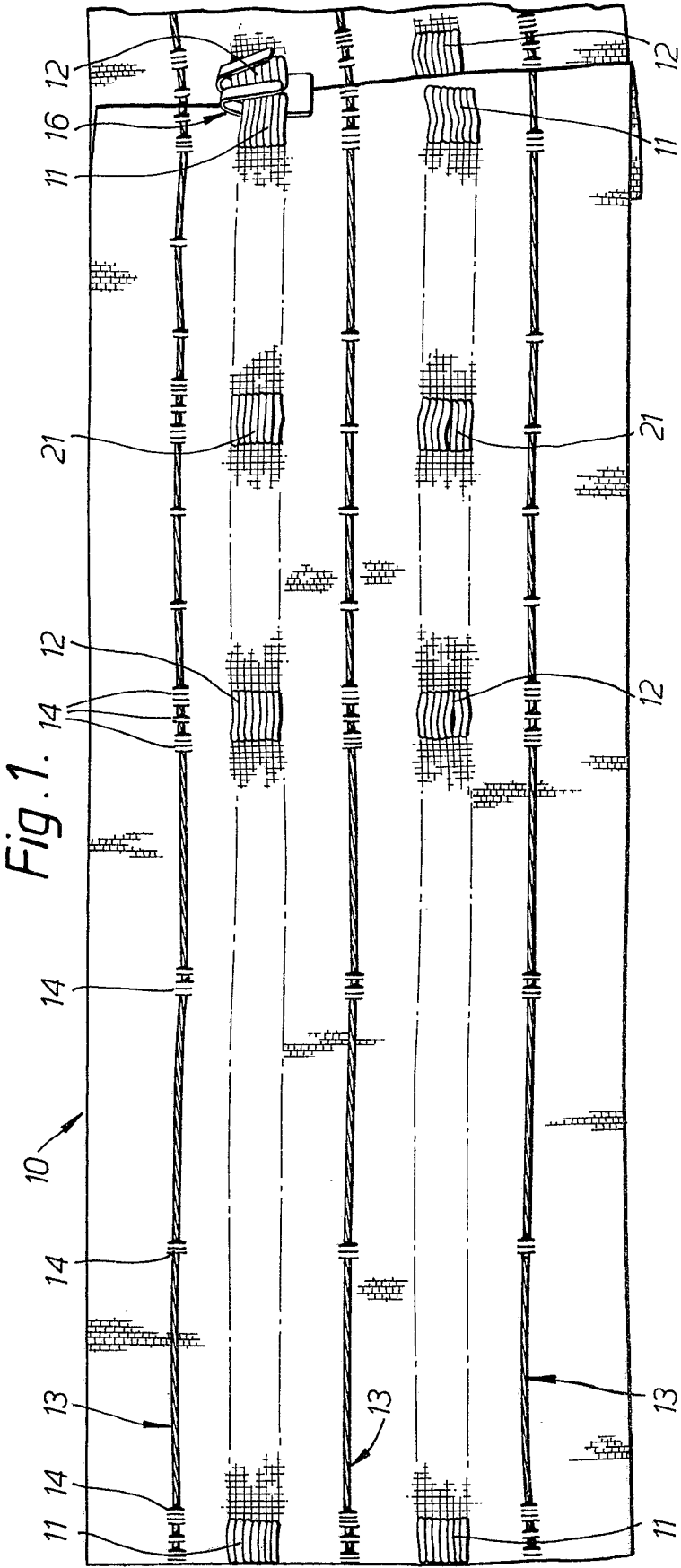
10. A tape as claimed in any one of the preceding Claims, provided with attachment means (21) for use in attaching the tape to a supporting member.

11. A tape as claimed in Claim 9, in which the attachment means comprises formations (21) on the tape.

12. A method of forming a pleat, comprising the steps of providing a tape having at least one portion for forming into a pleat, and a pair of locking means, one at each side of the said portion, forming the portion into a pleat, and then locking the pleat into position by interconnecting the locking means.

13. A clip (16) for use with a tape for forming a pleat having a pair of arms (17,18) each arm being engageable with the tape on respective sides of the pleat formed in the tape and the two arms being connected together.

14. A clip (16) claimed in Claim 15, in which the arms of the clip are hooked (20).





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	BE-A- 499 352 (ROSENBERG & BAETE) * Whole document * -----	1-14	A 47 H 13/16
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			A 47 H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-04-1989	Examiner PORWOLL H. P.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			