

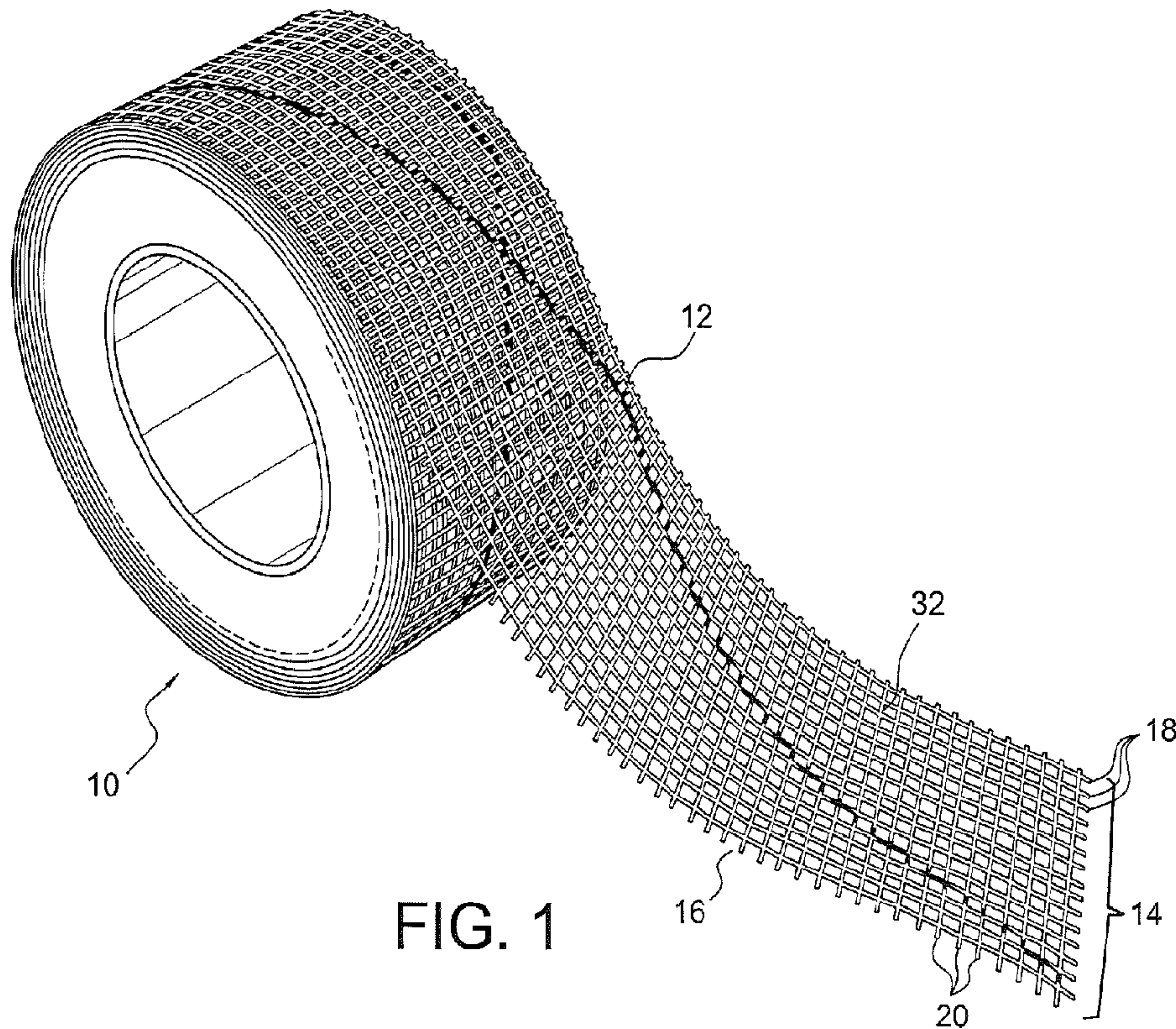


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 (71) **Demandeur/Applicant:**
ADAMS, DAVID, US
 (72) **Inventeur/Inventor:**
ADAMS, DAVID, US
 (74) **Agent:** SMART & BIGGAR

(54) **Titre : BANDE DE CLOISON SECHE DE TYPE TREILLIS AYANT UN MODELE D'INDEXATION DESTINE A INDIQUER UN BORD DE BANDE**

(54) **Title: MESH-TYPE DRYWALL TAPE HAVING AN INDEXING PATTERN FOR INDICATING A TAPE EDGE**



(57) **Abrégé/Abstract:**

A mesh-type drywall tape includes a scrim layer of a plurality of lengthwise strands coupled to a plurality of crosswise strands, wherein the scrim layer includes an indexing pattern for indicating a tape edge. To form the indexing pattern, markings are disposed on multiple strands. In one embodiment, the indexing pattern has a v-shaped configuration with diagonal portions that may vary or alternate in shape and color. The indexing pattern repeats itself along the entire length of the tape.

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(72) Inventor; and

(71) Applicant : ADAMS, David [US/US]; P.O. Box 284,
Yorklyn, DE 19736 (US).(74) Agent: CRAWL-BEY, Tamika, A.; Novak Druce Con-
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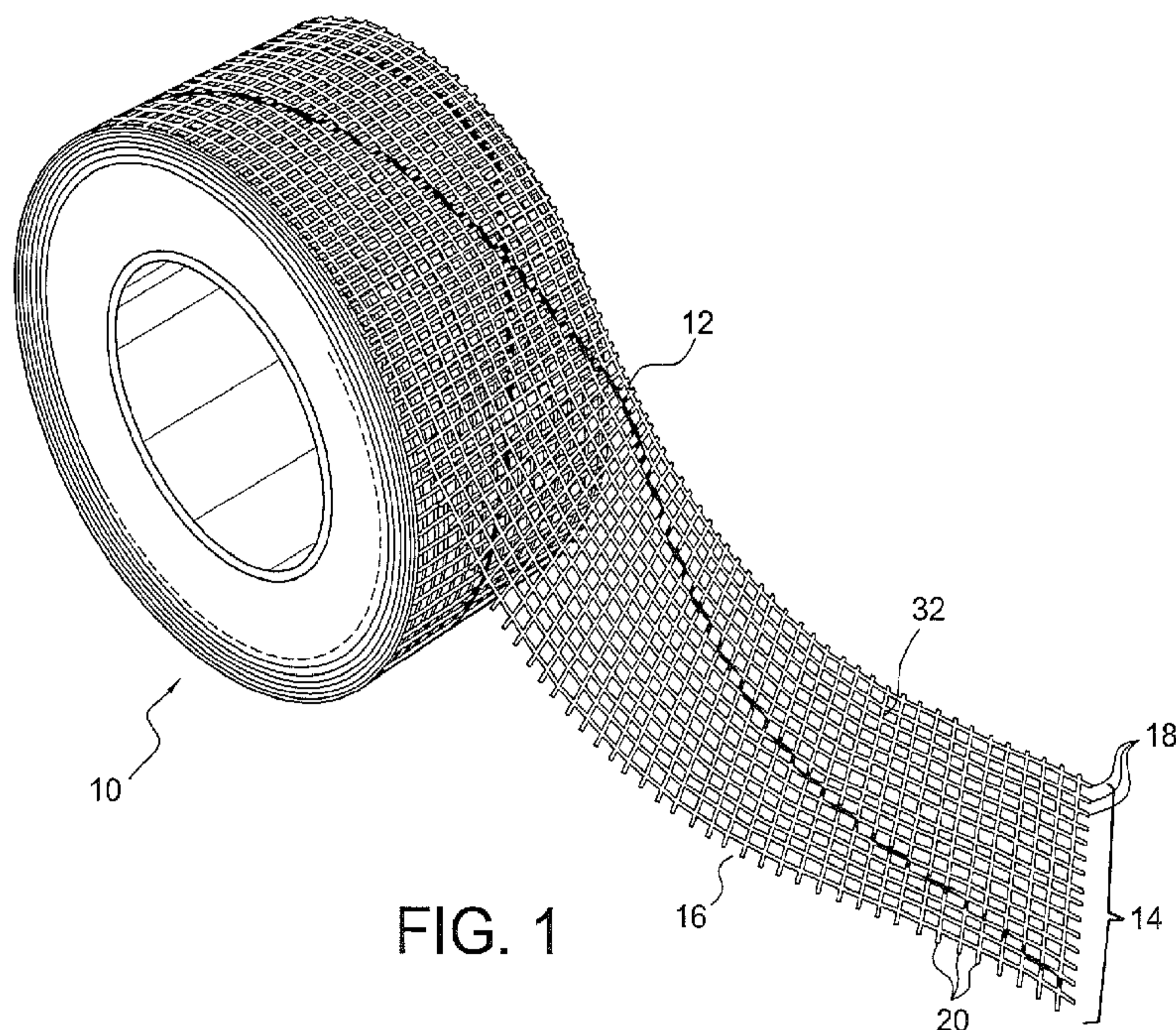


FIG. 1

(57) Abstract: A mesh-type drywall tape includes a scrim layer of a plurality of lengthwise strands coupled to a plurality of crosswise strands, wherein the scrim layer includes an indexing pattern for indicating a tape edge. To form the indexing pattern, markings are disposed on multiple strands. In one embodiment, the indexing pattern has a v-shaped configuration with diagonal portions that may vary or alternate in shape and color. The indexing pattern repeats itself along the entire length of the tape.

MESH-TYPE DRYWALL TAPE HAVING AN INDEXING PATTERN FOR INDICATING A TAPE EDGE

Field of the Invention

[0001] The field of the present invention relates to mesh-type drywall tapes having indexing patterns for indicating a tape edge.

Background

[0002] In the construction industry, drywall panels for walls and ceilings are affixed to wall studs or ceiling joists with drywall screws or other fasteners. The drywall panels are installed adjacent to one another.

[0003] The spaces or seams between adjacent drywall panels and the heads of the drywall screws or fasteners are covered with mesh-type drywall tape, and then in turn with a series of coats of joint compound (sometimes called “mud”). After the joint compound has dried, it may be sanded to a smooth finish, and sometimes is covered again with a skim coating of joint compound or plaster.

[0004] Mesh-type drywall tapes are manufactured with a plurality of strands arranged in an open pattern, having crosswise and lengthwise strands. After formation of the mesh or scrim layer, adhesives are applied to couple the strands and provide an adhesive backing on the underside of the tape. Afterwards, the adhesive backed mesh is wound onto a roller element, typically made of cardboard.

[0005] Unfortunately, because of the method of manufacture and materials used for mesh-type drywall tapes, it is difficult to determine starting, torn, or cut edges of tape

visually. Visual determination is particularly difficult because most mesh-type drywall tapes are manufactured such that all of the strands are uniform in color. How the strands are positioned when rolled onto a roller also makes visual determination of a tape edge difficult.

[0006] In addition, the texture and arrangement of strands can increase difficulty in detecting a tape edge by feel. Many types of mesh-type drywall tapes are manufactured with fiberglass strands, arranged in a grid or Leno weave pattern. These types of arrangements result in an outer surface, which is not smooth compared to non-mesh-type tapes, which have substantially uniform cross-sections.

[0007] The drywall installers who tape the seams, sometimes called “tapers”, frequently have difficulty removing mesh-type drywall tape from a roll. The cut end or edge of the mesh-type drywall tape is difficult to distinguish if the cut end has not been folded back upon itself at the cut end or edge.

[0008] While some methods have been proposed to visually detect starting edges for tape materials, these methods are not specific to mesh-type tapes. Rather, these methods seek to detect starting, torn, or cut edges of tape materials having uniform cross-sections and smooth outer surfaces. Although suitable for their intended purpose, these methods are not necessarily applicable to mesh-type drywall tapes.

[0009] Given the limitations of the prior art, as well as the considerations noted, there is a clear need for improved mesh-type drywall tapes.

SUMMARY

[0010] A mesh-type drywall tape has a scrim layer with a plurality of lengthwise strands coupled to a plurality of crosswise strands. To form the indexing pattern, the strands are marked with markings. Preferably, the upper surfaces of the strands are so marked.

[0011] In one embodiment, the indexing pattern has a v-shape configuration, having diagonal portions that may vary in shape and color. The v-shape pattern repeats itself along the entire length of the tape. In another embodiment, the indexing pattern has a series of

substantially parallel markings of different colors along the lengthwise strands that are offset from one another.

[0012] The mesh-type drywall tape may further comprise adhesives used to couple or join the strands to one another, and a backing adhesive used to couple or join the tape to drywall surfaces, or other similar surfaces. When produced in a roll-form, the mesh-type drywall tape also may include a cylindrical core upon which the tape is wound.

[0012a] In an illustrative embodiment, a mesh-type drywall tape dispensed from a roll includes a scrim layer having a plurality of crosswise strands and a plurality of lengthwise strands. The scrim layer defines a top surface, an opposite surface and a length, and a backing adhesive is disposed on the opposite surface. The mesh-type drywall tape further includes markings visible on at least the top surface to form an eccentric indexing pattern that indicates a crosswise tape edge so that a user may visually locate the crosswise tape edge from which to begin to unroll a portion of the length of the drywall tape from the roll.

[0012b] In another illustrative embodiment, a method of making a mesh-type drywall tape with a tape edge indicator includes coupling a plurality of lengthwise extending strands and crosswise extending strands together to form a scrim layer that has a top surface, an opposite surface and a length. The method further includes applying a backing adhesive to the opposite surface, applying an eccentric indexing pattern visible at least on the top surface for indicating a crosswise tape edge, and coupling the mesh-type drywall tape to a core to form a roll.

[0012c] Other aspects and features of illustrative embodiments will become apparent to those ordinarily skilled in the art upon review of the following description of such embodiments in conjunction with the accompanying figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The drawings described herein are for illustrative purposes only and are not intended to limit the scope of the present disclosure. In the drawings:

FIG. 1 is a perspective view of a partially rolled mesh-type drywall tape, showing an indexing pattern;

FIG. 2 is a top view, showing one upper layer of a rolled mesh-type drywall tape;

FIG. 3 is a top plan view of an unrolled section of a mesh-type drywall tape, showing an indexing pattern;

FIG. 4 is a cross-sectional view of the unrolled section of a mesh-type drywall tape shown in FIG. 3 taken along line 4-4; and

FIG. 5 is a top plan view of an unrolled section of a mesh-type drywall tape, showing a second embodiment of an indexing pattern.

DETAILED DESCRIPTION

[0014] Turning in detail to the drawings, FIGs. 1 and 2 show a mesh-type drywall tape **10** in rolled form, having an indexing pattern **12** used for indicating a tape edge **14**. The tape **10** comprises a scrim layer **16** that includes plurality of lengthwise strands **18** and a plurality of crosswise strands **20**. Both types of strands **18**, **20** comprise one or more strands, fibers or yarns. The strands, fibers or yarns generally are manufactured from fiberglass, or

one or more other materials suitable to cover drywall seams. The strands, fibers or yarns also may be prepared with protective elements (not shown), such as coatings, containing one or more antimicrobial additives, antifungal additives, ultraviolet (“uv”) stabilizers and/or elastomeric materials. These protective elements may be used, for example, to protect tapes and also the drywall positioned under the tapes from mold growth.

[0015] As used herein, “drywall” refers to panels or sections of building materials, including, but not limited to, gypsum boards, cement boards and wallboards. In typical drywall applications that use mesh-type drywall tapes, sections of drywall are secured against a framework of vertical studs, which are erected as part of a wall, or joists, which are erected as part of a ceiling. After the drywall sections are initially secured, seams remain visible between opposed edges of adjacent drywall sections. Mesh-type drywall tape is installed over such seams, as well as over the screw heads or fasteners joining the drywall sections to the studs or joists. Then, the mesh-type drywall tape is covered with joint compound to cover the seams and create seamless joints.

[0016] Mesh-type drywall tapes generally comprise a series of strands that form the mesh. Strands **18**, **20** may be formed by coupling together a plurality of yarns or fibers using any known method, such as, but not limited to, twisting. A scrim layer **16** is then formed with multiple strands **18**, **20**. The scrim layer **16** may be any arrangement suitable for forming mesh-type drywall tapes. In the embodiment shown in FIGs. 1-4, the scrim layer is in a regular square grid type pattern, where crosswise strands **20** are laid on top of the lengthwise strands **18** and coupled or joined to one another, using an adhesive (not shown) on those areas or regions where the strands **18**, **20** intersect or contact one another. The scrim layer **16** also may be formed using a weaving pattern, such as the Leno weave pattern, for example.

[0017] The mesh-type drywall tape **10** also may include additional backing adhesives **28** (FIG. 4) coupled to the bottom surface **30** of the scrim layer **16**. The backing adhesive is used for coupling, joining, or adhering the tape to drywall surfaces.

[0018] As shown in the FIGs. 1-4, a portion of the upper surface **32** of the scrim layer includes markings **34** that form the indexing pattern **12**. The markings **34** may be applied to

the scrim layer **16** before or after adhesives. As used herein, the term “markings” should be construed as any element that may be applied to a scrim layer using any known method(s). For example, a line type marking may be applied to the scrim layer **16**, while it is in a flat shape. Alternatively, a marking element may add markings during the rolling of the tape onto a cylindrical core. Suitable marking elements include paints, inks, and stains.

[0019] Alternatively, markings **34** include an overlay material that is suitable for attaching or adhering to the scrim layer. The overlay material is any suitable material suitable for use during scrim manufacture. For example, the overlay material may comprise at least one strand or thread of a contrasting color that is attached to or adhered to the scrim layer. In one embodiment, the thread or strand has a contrasting color that is superimposed over the scrim layer. In another embodiment, the markings form an indexing pattern having a series of parallel markings of differing colors along the lengthwise strands, which are offset from one another, as further described below.

[0020] The markings may comprise ink, paint, stain, or any other material that changes strand or yarn color, adheres to strands or yarns, or that embeds into strands or yarns. The term “marking” as used herein, is not only surface coatings applied to one or more strands or yarns, but also defined as physical changes to the composition or structure of the strands or yarns. For example, sections of the strands or yarns may be colored throughout the strand or yarn material. The markings also may provide altered areas (not shown) on the strands, such that the tape edge may be detected by feel. For example, inked strands may result in a texturized upper surface. The markings also may modify the textural feel of the strands by etching, for example.

[0021] Markings **34** form the indexing pattern **12**, as shown particularly in FIGs. 1 to 3. In one embodiment, from a distance, the indexing pattern **12** generally has a v-shaped configuration **36**. Each v-shaped configuration **36** includes diagonal portions **26**. In a preferred embodiment, the diagonal portions **26** have varying or alternating colors. As one non-limiting example, a first diagonal portion **26a** may comprise blue (FIG. 3), while a second diagonal portion **26b** may comprise red (FIG. 3). The diagonal portions **26** then repeat in a varying or alternating color pattern of red and blue, along the length of the tape **10**.

[0022] The indexing pattern **12** is applied to upper surfaces of strands **18, 20** to aid in detection of a tape edge **14**. The tape edge **14** may be formed by cutting, tearing, or any other methods that can sever a plurality of strands. As shown in FIG. 2, the tape edge **14** can be seen readily by the discontinuity of the diagonal portions **26** observed at the tape edge **14**. In contrast to conventional tape materials, having substantially uniform cross-section, a tape edge, as used herein comprises crosswise strands **20** mesh and/or lengthwise strands **18** having a marking **34**. Marked strands **40** provide an indicator for the tape edge **14**. Therefore, a user of the tape **10** can determine visually and/or by feel where a tape edge **14** begins.

[0023] Often, mesh type drywall tapes are sold in rolled form, as shown in FIG. 1. Typically, to form the rolled tape in this manner, a cylindrical core is used to wind the scrim layer **16**, having adhesives.

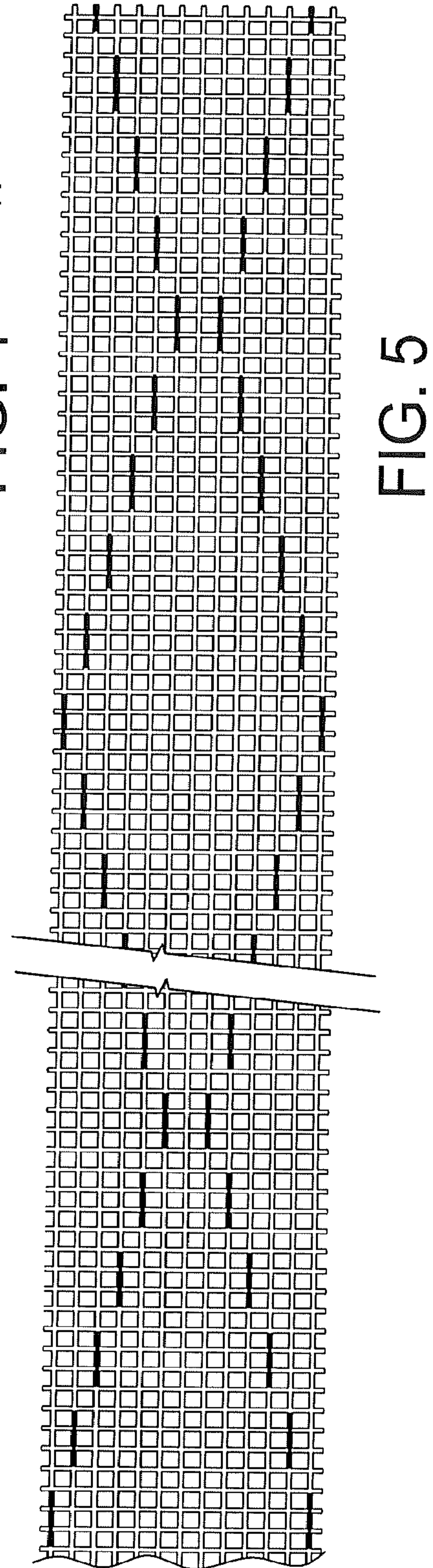
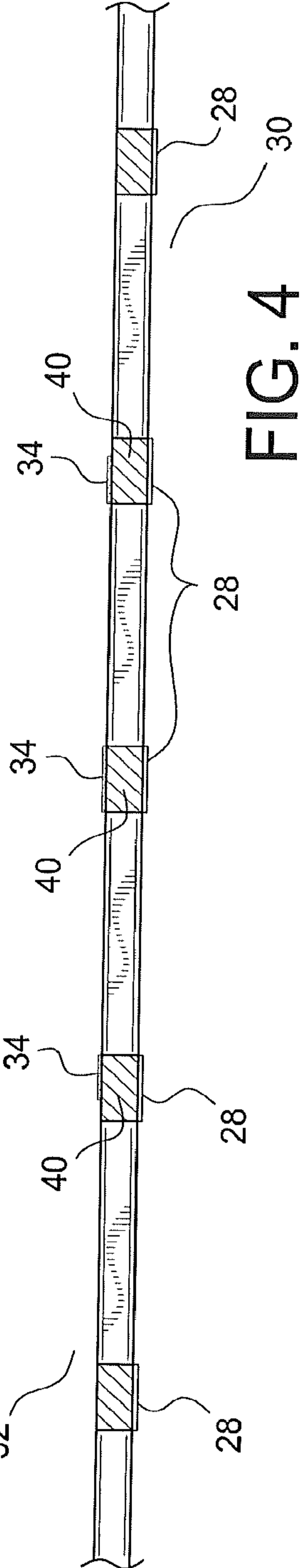
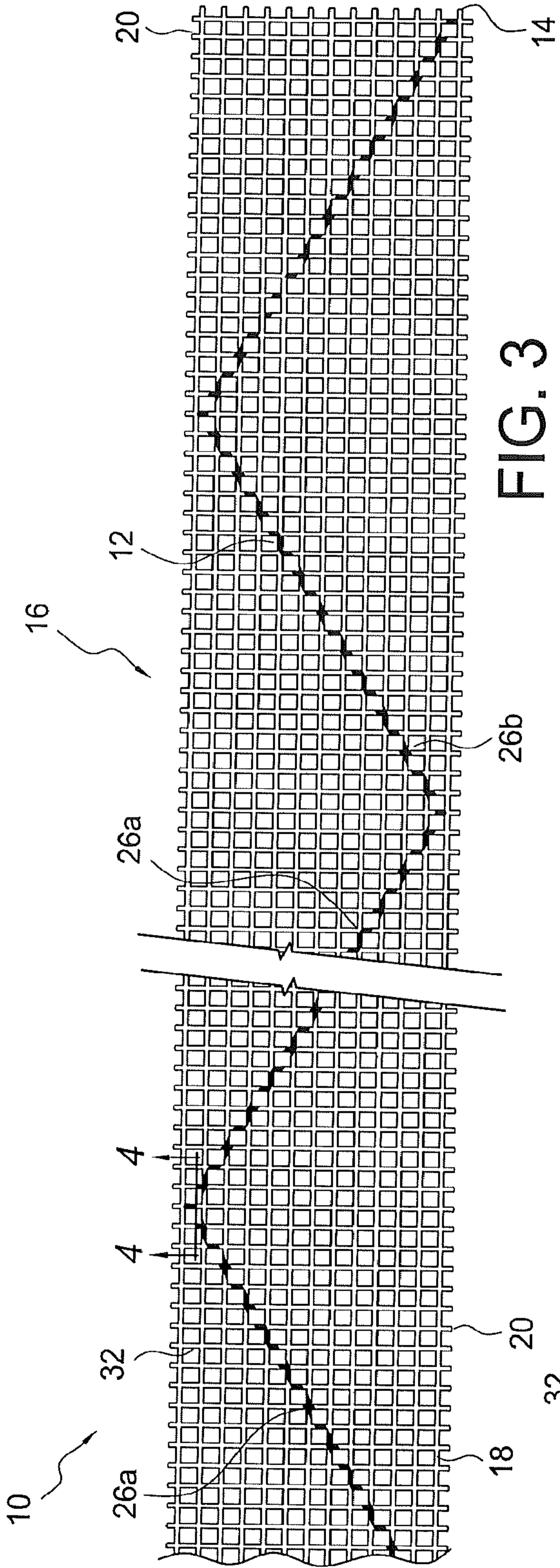
[0024] FIG. 5 shows a second embodiment of a mesh-type drywall tape **50**, where a indexing pattern **52** has a series of substantially parallel markings **54** of different colors along a portion of lengthwise strands **56**. Marked portions are offset from one another and form a generally v-shaped pattern **52**, when viewed from a distance, which repeats along the extended length of the drywall tape. The number of marked portions will depend on the width of the tape and the spacing of the lengthwise strands. Marked portions **58a** and **58a'** preferably comprise a first color, while marked portions **58b** and **58b'** comprise a second color, **58b** and **58c'** comprise a third color, **58d** and **58d'** comprise a fourth color, and **58e** and **58e'** comprise a fifth color. However, this color pattern is not to be construed as limited, the marked portions may comprise any colorized pattern that aids in indicating a tape edge.

[0025] While embodiments of this invention have been shown and described, it will be apparent to those skilled in the art that many more modifications are possible without departing from the inventive concepts herein. Thus, the embodiments described herein are illustrative and are not to be construed as limiting the invention as defined by the following claims.

THE SUBJECT-MATTER OF THE INVENTION FOR WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED IS DEFINED AS FOLLOWS:

1. A mesh-type drywall tape dispensed from a roll, comprising:
a scrim layer having a plurality of crosswise strands and a plurality of lengthwise strands and defining a top surface and an opposite surface and a length, and with a backing adhesive disposed on said opposite surface; and
markings visible on at least the top surface to form an eccentric indexing pattern that indicates a crosswise tape edge so that a user may visually locate said crosswise tape edge from which to begin to unroll a portion of the length of the drywall tape from the roll.
2. The mesh-type drywall tape of claim 1, wherein the plurality of crosswise strands comprise fiberglass.
3. The mesh-type drywall tape of claim 1, wherein the plurality of lengthwise strands comprise fiberglass.
4. The mesh-type drywall tape of claim 1, wherein the indexing pattern has a v-shaped configuration.
5. The mesh-type drywall tape of claim 4, wherein the v-shaped configuration comprises a first diagonal portion of a first color and a second diagonal portion of a second color.
6. The mesh-type drywall tape of claim 1, wherein the indexing pattern has a series of colored sections extending in a lengthwise direction of the scrim layer and offset from one another.
7. The mesh-type drywall tape of claim 1, further comprising an adhesive that couples the lengthwise strands to the crosswise strands.

8. The mesh-type drywall tape of claim 1, further comprising a cylindrical core coupled to the scrim layer.
9. The mesh-type drywall tape of claim 1, wherein the indexing pattern has markings offset from one another.
10. A method of making a mesh-type drywall tape with a tape edge indicator, comprising:
 - coupling a plurality of lengthwise extending strands and crosswise extending strands together to form a scrim layer that has a top surface and an opposite surface and a length;
 - applying a backing adhesive to the opposite surface;
 - applying an eccentric indexing pattern visible at least on the top surface for indicating a crosswise tape edge; and
 - coupling the mesh-type drywall tape to a core to form a roll.
11. The method of claim 10, wherein the indexing pattern has a v-shaped configuration.
12. The method of claim 11, wherein the v-shaped configuration comprises a first diagonal portion of a first color and a second diagonal portion of a second color.
13. The method of claim 10, wherein the indexing pattern has a series of colored sections extending in a lengthwise direction of the scrim layer and offset from one another.
14. The method of claim 10, wherein the indexing pattern is applied to the scrim layer before the scrim layer is rolled or coiled into the roll.
15. The method of claim 10, wherein the indexing pattern is applied to one or more strands before the strands are coupled to form the scrim layer.
16. The method of claim 10, wherein the indexing pattern has markings offset from one another.



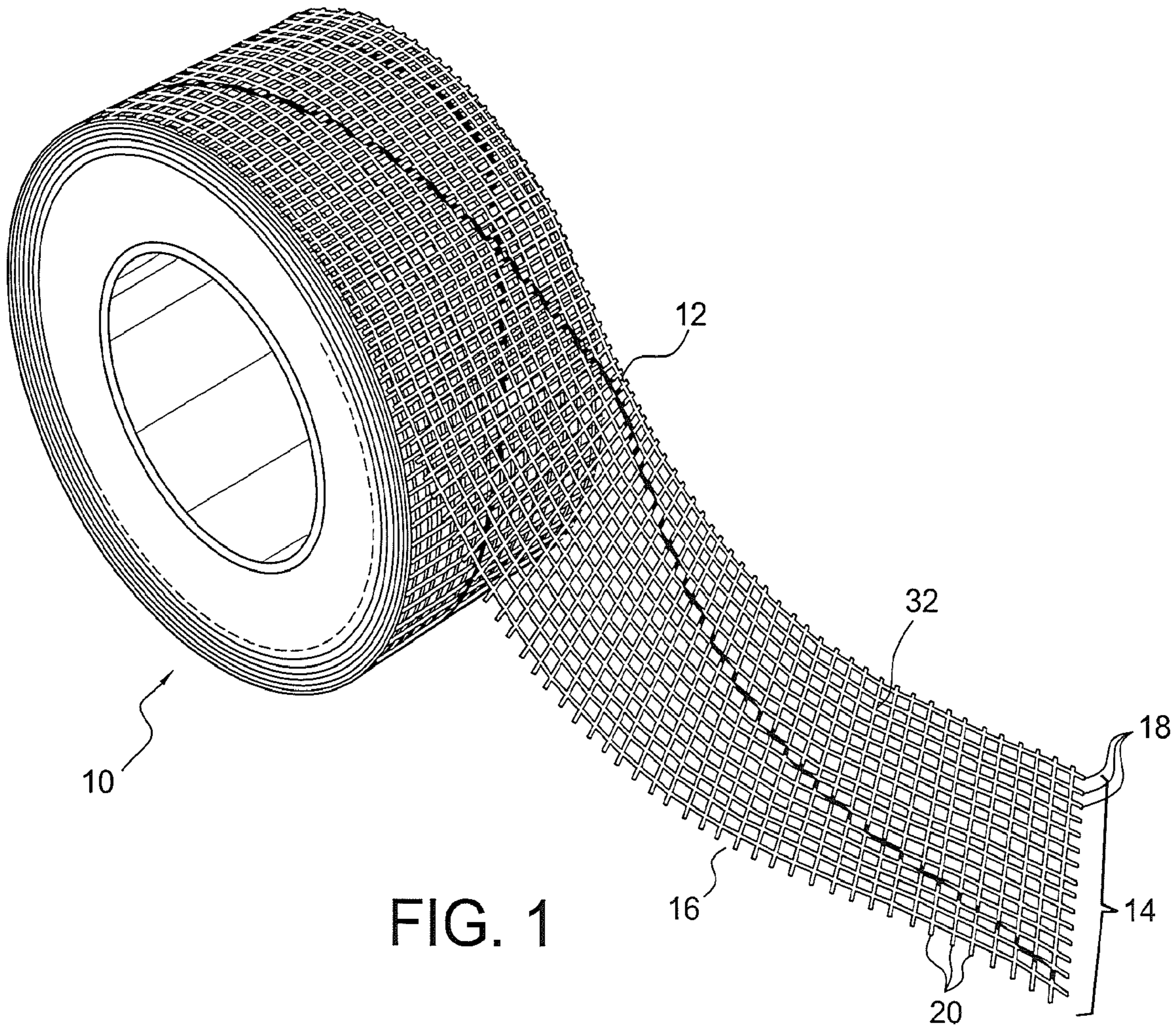


FIG. 1