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Published:

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(54) **Title**: WEAVE BUDDY

(57) **Abstract**: Embodiments of the present teachings address torn hair from a person's scalp when receiving hair extensions by absorbing the mechanical stress of affixing such hair weft extensions to a person's scalp. The weave buddy of the present disclosure comprises a first side, adapted to be affixed to a plurality of hair wefts, a second side, adapted to be affixed to a plurality of hair braids organized in parallel, and a plurality of apertures.

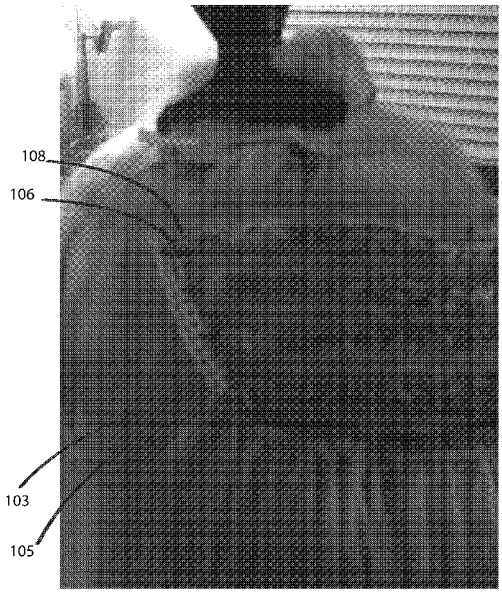


Figure 1d

WO 2017/100483 A1

PATENT COOPERATION TREATY **PATENT APPLICATION** **IN THE NAME OF**
Kathryn Irene Hiskey
FOR
WEAVE BUDDY
DOCKET NO. KAT-003-PCT
Prepared by
Erik M. Vieira **USPTO Registration No.: 53,723**

WEAVE BUDDY

This Patent Cooperation Treaty Patent Application claims the benefit of priority to pending U.S. Provisional Patent Application entitled, "WEAVE BUDDY", filed December 8, 2015, having serial number 62/264,824 and is incorporated by reference in its entirety.

Field

The present disclosure relates to apparatuses and methods for weaving hair extensions onto a person's scalp.

Background

It has become growingly common for people to incorporate hair extensions into their natural hair for a variety of reasons. Some people may be losing hair due to age, cancer or other reasons, while still other people may simply desire to have longer hair without the need to grow their hair long permanently.

One problem with previous solutions to providing hair extensions arises when the person desiring to have hair extensions woven into their natural hair can sustain broken or torn hair due to the tension required to sew the extensions into the person's scalp. That is, there is a certain minimum amount of tension that a hairdresser must apply to a client's natural hair when sewing or weaving the extensions, which can lead to broken or damaged hair. This is particularly concerning for persons whom already have compromised hair strength. Also, people who regularly obtain hair extensions are more susceptible to hair loss due to extensions, due to the long term tension and pulling forces that the sewn on hair extensions exert on a person's scalp.

Additionally, previous hair extension solutions do not always lead to a desired fuller, more natural looking head of hair for a user, as they depend on the limitations of a person's natural hair edges.

The present teachings address these issues and provide a better solution than current, state of the art solutions provide, as will now be disclosed.

DETAILED DESCRIPTION

The purpose of the present teachings is to aid a hairdresser in performing the hair extensions without tearing and damaging client's hair edges and creating a fuller and healthier look. This invention is sewn around the edges of a person's prepared cornrow braids called tracks. Types of hair extensions, called wefts, are sewn on the tracks and are secured with the aid of the invention on the end of each row. Weft hair extensions are rows of hair that are sewn onto a client's natural hair. This type of hair extension has to be secured on the edges and causes hair loss and or balding on those areas that have had continuous pulling and tightening.

Traction alopecia is a form of alopecia, which is gradual hair loss caused by the pulling force being applied to hair when wearing a tight ponytail, pigtails, braids, or hair extensions. The present teachings mitigate the effects of such gradual hair loss due to long term use of hair extensions, as will be described further below.

The present invention takes the pressure from the tight sewing and knotting that would generally end up on the edges of the client's hair line and it extends the tracks to create more room for the weft of hair, creating a fuller healthier look without damaging the client's edges.

There are items that have been created in aid to help the hairdresser apply the wefts to cover the balding edges and make the client appear to have healthy looking hair again. But these items do not substantially protect the client's own hair from tearing at the edges, because they do not stay in place, they pull back when the natural hair grows out. The pull back effect also causes the delicate edges to tear out. This invention takes on all of the pressure that would normally go onto the client's edges where the tearing would have taken place and it fills the balding areas securely with a special material that does not allow any pulling on the client's natural hair. People that would use the invention are hair extension experts and beauty suppliers. The benefits that the users would receive are a tool to stop tearing out their client's natural hair, the ability to work with balding issues, preventing new clients from tearing their edges, creating fuller and more natural looking hair for clients.

It will be appreciated that over years of wearing hair weft extensions, the edges where the braids commence become torn and there is permanent damage and balding from years the of the weft hair extensions being sewn thereon. The edges receive the most damage because that is

where they are tugged and pulled the most because the hairdresser has to make sure she tightens that part well so the thread doesn't come apart. Also, once the hair extensions are grown out the looseness of the braid plus the weight of the weft hair extensions pulls the natural hair back, causing much added tension to the delicate edges.

Referring now generally to FIGURE 1a - FIGURE 1e a Weave Buddy 100 is disclosed.

As illustrated in FIGURE 1a, a Weave Buddy 100 comprising a first side 104, a second side 106, and a plurality of apertures 102 is disclosed. FIGURE 1b illustrates a human head having a plurality of braids organized generally in parallel, with a plurality of leading edges 108.

FIGURE 1c illustrates the Weave Buddy 100, wherein the second side 106 is affixed to the plurality of braids organized in parallel at the plurality of leading edges 108. It will be appreciated that the plurality of leading edges 108 may be affixed to the Weave Buddy 100 by tying knots between the plurality of apertures 102 disposed along the second side 106 and the plurality of leading edges 108.

FIGURE 1d illustrates a progression from FIGURE 1c, wherein a weft 105 is affixed to an aperture 103. The Weave Buddy 100 functions to absorb mechanical tension on the ends of each row of hair braids, which were previously absorbed by the scalp and hair roots of previous state of the art solutions, which caused damage to the hair.

Using the Weave Buddy 100, a hairdresser progressively affixes more wefts to the apertures in such a manner as to eventually cover the Weave Buddy 100.

FIGURE 1e illustrates a final view of multiple of the wefts 105 being affixed to the row of braids and the Weave Buddy 100.

Using techniques as described herein, edges of the wefts are secured to the Weave Buddy 100, alleviating the person's scalp from absorbing the mechanical stress and tension, thereby avoiding further pulling and tearing of the person's natural hair. Furthermore, by employing the Weave Buddy 100, the hairdresser may further create additional "hair" in the areas that have been torn and/or balding, by adding additional wefts beyond the point at which the person's hair extends.

Typical in persons requiring weft hair extensions, over a period of time, such as for example 25 years in some cases, the process of adding extensions must be redone approximately every six weeks. Typically, damage over time is done on the front and top edges of the head and

the sides. Often, when a person has lost so much hair a hairdresser may use a net, which was created for this type of damage. The net is used to cover up the balding areas on the scalp and wefts may be sown into the net. However, the net fails to eliminate the mechanical tension of the affixed portion of wefts, because the net is not designed to absorb such tension and has no mechanical rigidity. Therefore, a net does not resolve the hair tearing issue. In one embodiment, a hairdresser may use a net and the Weave Buddy 100 simultaneously, wherein the Buddy 100 functions to absorb the mechanical tension of the wefts affixing points, and the net functions to help cover balding areas of the scalp. When used in this configuration, the net may be sewn directly into the Weave Buddy 100 and not directly into the delicate edges of the person's scalp. This protects the person's hair edges from further tearing or damage. After the net is applied, the hair dresser can continue as usual to create a full head of extensions knowing that all of the pressure and tightness of the sewing will go onto the Weave Buddy 100 and not directly onto the person's delicate edges.

It will be appreciated that in some embodiments, the width of the Weave Buddy 100 may be wider to compensate for a person's hair loss surface area on the scalp. That is, if a person has a substantial bald spot, the Weave Buddy 100 may be wider to cover such an area more fully than prior art solutions allow.

It will be appreciated that the Weave Buddy 100 may be specifically customized in shape and size to accommodate literally any pattern of hair loss.

Referring now to Figure 2a, one customized variation of the Weave Buddy 200 is shown, wherein the Weave Buddy 200 has been specifically shaped to match the contours of a particular person's hair loss pattern, such as for example the person's scalp region shown in Figure 2b. Figure 2c illustrates the customized Weave Buddy 200 of Figure 2a affixed to the hair loss region of the scalp shown in Figure 2b. The edges of the Weave Buddy 200 are secured into place by sewing the edges of the Weave Buddy 200 onto braided areas of the scalp on the edges of the hair loss region. Next, a hair dresser may proceed with affixing additional hair wefts directly on to the Weave Buddy 200, wherein the Weave Buddy 200 absorbs all the mechanical stress associated with attaching hair. This helps to eliminate the long term damage done for clients requiring hair extensions over a long time period. Figure 2d illustrates the final look of

the person from Figure 2b, wherein the hair loss region is no longer visible and the hair loss region looks natural and full.

In one embodiment, Figure 3a illustrates various shapes and sizes of Weave Buddy 300, which may be used as required to cover different hair loss regions of a client's scalp. More specifically, embodiments shown in Figure 3a are designed to fit the contour of a person's scalp edges. In these variations, the Weave Buddy 300 function as a pair, wherein one of each pair is positioned on each side of the client's scalp, which are adjusted around the right and left temporal lobe area's edges.

Figure 3b illustrates the progression for affixing the Weave Buddy 300 onto the scalp of a model doll, used for demonstration purposes. That is, hair loss region 302 is initially covered by a Weave Buddy 300, which is initially held in place via clips. Affixed Weave Buddy 304 is next more permanently affixed via sewing the Weave Buddy 300 edges onto braided cornrows on the scalp. Next, hair wefts are then affixed directly to the Weave Buddy 300 to cover the Weave Buddy 300. The completed Weave Buddy 306 shows the end result after all hair wefts have been affixed to the Weave Buddy 300.

In one embodiment, the material used to make the Weave Buddy are plastic mesh sheets with quarter inch holes, those sheets are cut into figures and shapes that have been designed to fit the contour of a humans side and frontal scalp where the hairline would be. Other variations include the use of plastic mesh sheets with 1/8 inch holes. 1/8 holes may be advantageous because the consistency of the mesh being slightly thinner yet still durable enough as not to move relative to a client's scalp. The reason for using the plastic mesh is because of the consistency of this plastic, is hard enough so that it doesn't pull back yet soft enough to be comfortable on the clients scalp. This plastic mesh allows the clients own natural hair to not pull back and get torn or broken. Plastic mesh sheets may be cut into strips into shapes that fit the contour of a clients areas of hair loss. For little to no hair loss the smaller versions are recommended and for the more damaged scalp, the larger versions are recommended for use. These various embodiments all work the same way in that the purpose is to attach to the clients natural hair at the edges and act as a protector to a persons scalp and to stop further hair damage.

Figure 4a illustrates another variation of a Weave Buddy 400, which wraps around a larger region of the scalp as a single piece. In one embodiment, this variation surrounds the

frontal lobe as well as the left and right lobe area's edges. This design helps prevent damage done by traction alopecia, as the mechanical stress is removed from the scalp and absorbed completely by the Weave Buddy 400.

Figure 4b illustrates one application of the Weave Buddy 400 of Figure 4a, which may be combined with a mesh net to cover an even larger hair loss region. A cornrow braid 402 is created across the scalp, and then the Weave Buddy 400 is sewn onto the cornrow. A mesh net 404 is then affixed to the Weave Buddy 400, by sewing or tying, and additional hair wefts may be applied to the Weave Buddy 400 and the mesh net 404. One advantage of this configuration is that any mechanical stress on the mesh net 404 is absorbed by the Weave Buddy 400 and not the scalp of the person.

Figure 4c illustrates the final progression and result of finally adding numerous hair wefts on to the mesh net 404 and Weave Buddy 400.

Figure 5a illustrates one variation of the Weave Buddy, which is a Braid-less Track Weave Buddy 500.

For several decades Weft Hair Extensions 508, such as those shown in Figure 5b have been sewn onto a client's natural hair through the use of a cornrow braid and thread and needles, also referred to as a cornrow track. This procedure worked fine but during this last decade the problems have been evident that this method is bulky and damaging. Throughout the years, it has been proven that tight braiding at the root area has been the cause for Traction Alopecia, a loss of hair, sometimes permanent, at the root area usually in the shape of a track caused from a pulling force. The Braid-less Track Weave Buddy 500 of the present teachings eliminates bulk by creating a "braid-less" track and eliminates bulk and damage on the scalp by doing away with tight braiding and pulling on the scalp.

The Braid-less Track Weave Buddy 500 of the present disclosure was created to be able to gently and firmly attach a Weft Hair Extensions 508 on a client's natural hair at the root without the need to prepare a tight or bulky cornrow braid. This method is attached onto the scalp by clipping The Braid-less Track Weave Buddy 500 onto the client's natural hair at the root. In one exemplary embodiment, the next step is pulling the client's natural hair from the top of a ½ inch hole, through the ½ inch hole and below the ½ inch hole, a micro-bead 504 is slipped through the three sections of hair and is clamped together with hair extension pliers, as will be

further described hereinbelow. This procedure is continued until the Braid-less Track Weave Buddy 500 is attached completely from the left frontal area, across the back area and onto the right frontal area. Once the Braid-less Track Weave Buddy 500 is attached, it is a firm track and is ready to have a row of Weft Hair Extensions 508 sewn in.

A Hand-tied Weft Hair Extension is usually made with human hair that has been cut off from the root area of a human scalp. A person then manually produces a seam while folding the root ends of the human hair and creating a tight curtain of hair.

A Machine Weft Hair Extension is usually made with human hair that has been cut off from the root area of a humans scalp. The cut hair is then folded at the root and fed into a special sewing machine that weaves the hair tight to form a Weft Hair Extension also called a Curtain of Hair.

In one exemplary embodiment, the Braid-less Track Weave Buddy has been prepared from a sheet of plastic mesh that has ¼ inch square holes. When preparing the Braid-less Track Weave Buddy 500, this plastic mesh material is cut into a one tier single strand of the quarter inch in length and width squares. Within this strand, every 4th hole has been adjoined with the following quarter inch hole to create a ½ inch hole in width and ¼ inch in length.

As illustrated in Figure 5c, a track is created by forming a firm row of some sort that acts as an anchor on the scalp for attaching Weft Hair Extensions. The Cornrow method is most popular for creating a track. A person starts at one corner and when finishing the cornrow creates a braid at the end. This type of track can be very bulky and not appear as natural when the Weft of human hair is attached to it especially to the touch. If prepared correctly the cornrow track is one of the least damaging forms of hair extensions. Unfortunately many hair dressers have abused this method by pulling and braiding too tight causing traction alopecia.

As illustrated in Figure 5d, The Malaysian Beaded Method is a form of track that uses micro-beads to attach Weft Hair Extensions 508 onto the clients own natural hair. This can be done by grabbing a small section of the Weft Hair Extension 508 and then a small section of the clients natural scalp hair, pulling a micro-bead 504 through both sections and clamping a bead onto them. Also, another way is to add a row of micro-beads across the clients scalp and then proceed to sew on the Curtain of Hair Extensions. The clamped bead keeps the weft in placement with the clients natural hair but it has two major flaws. It doesn't last too long because it's not

very firm so the clients own hair loosens fast. And it's very uncomfortable because there is a lot of pressure and pulling of the clients own natural scalp.

As illustrated in Figure 5e, The Pole Method creates a track using a hair weaving machine that intertwines string from its pole with the client's hair to create a flat base across their head. Unfortunately, this method is tough on the scalp and has been know to cause scalp damage and hair loss.

As shown in Figure 5f, The Braid-less Track Weave Buddy 526 aids the Hair Extension Expert in attaching a Weft of Hair Extensions on the clients natural hair at the root area without damaging the scalp or creating bulk.

The Braid-less Track Weave Buddy 526 allows the client to keep her Weft Hair Extensions on her scalp for the normal duration of the expected use and in most cases longer. It is flatter and less noticeable yet strong and durable.

The Braid-less Track Weave Buddy 526 is different because it is not bulky and does not pull tight like the cornrow braids, it is not week like the micro-bead method that stands alone without much support or firmness. And it is not fragile nor causes tearing and breakage like the pole method.

CLAIMS

What is claimed is:

1.) A weave buddy, adapted to be affixed to a plurality of hair braids organized in parallel, comprising:

a.) a first side, adapted to be affixed to a plurality of hair wefts;

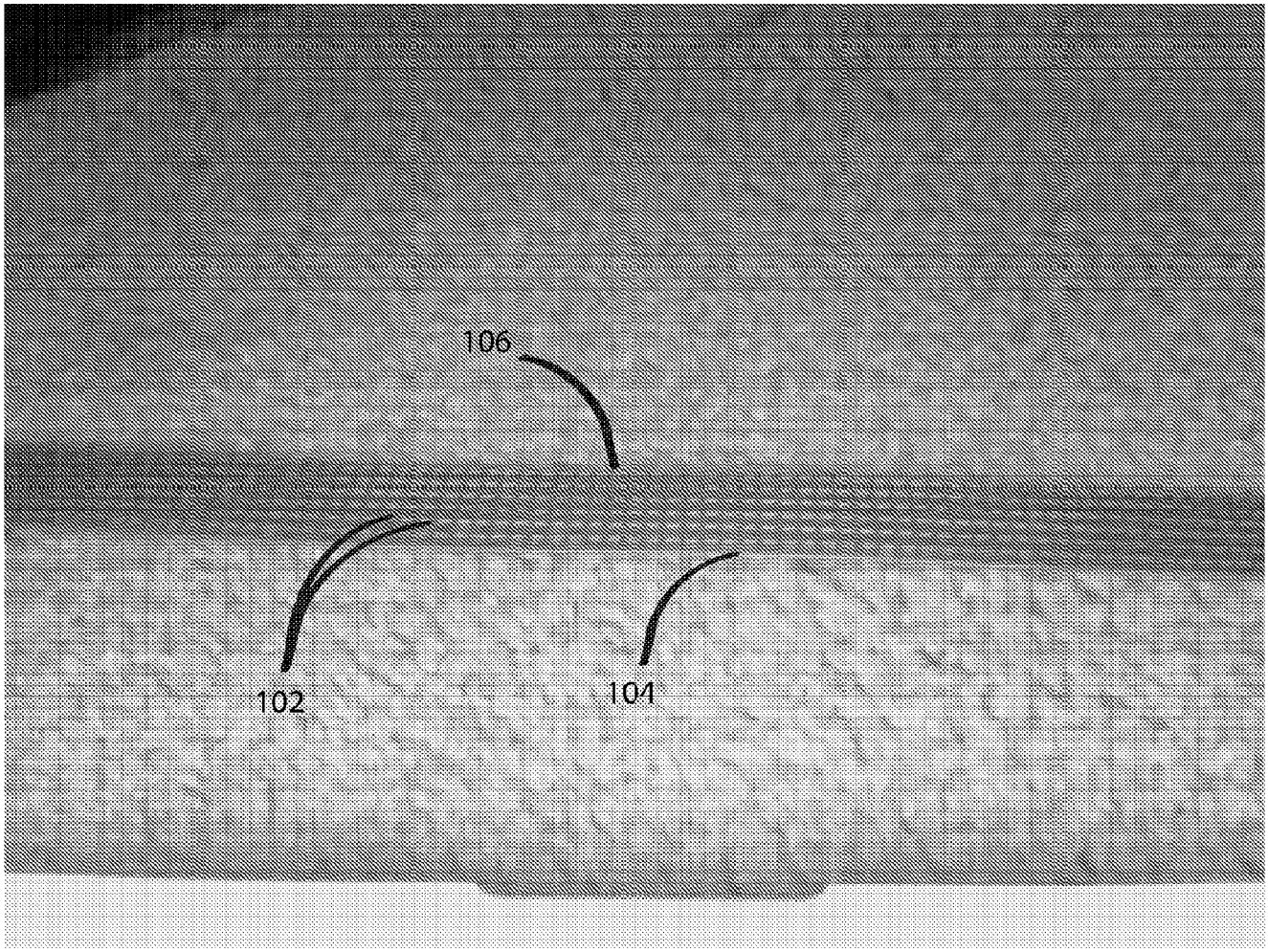
b.) a second side, adapted to be affixed to the plurality of hair braids organized in parallel, and;

c.) a plurality of apertures, adapted to accept the plurality of hair wefts therein, further adapted to accept the plurality of hair braids organized in parallel.

2.) The hair weave apparatus of Claim 1, adapted to have a length of 13.5 inches.

3.) The hair weave apparatus of Claim 2, further adapted to have a width of 1 inch.

4.) The hair weave apparatus of Claim 3, wherein the plurality of apertures comprise ¼ inch square holes.



100

Figure 1a

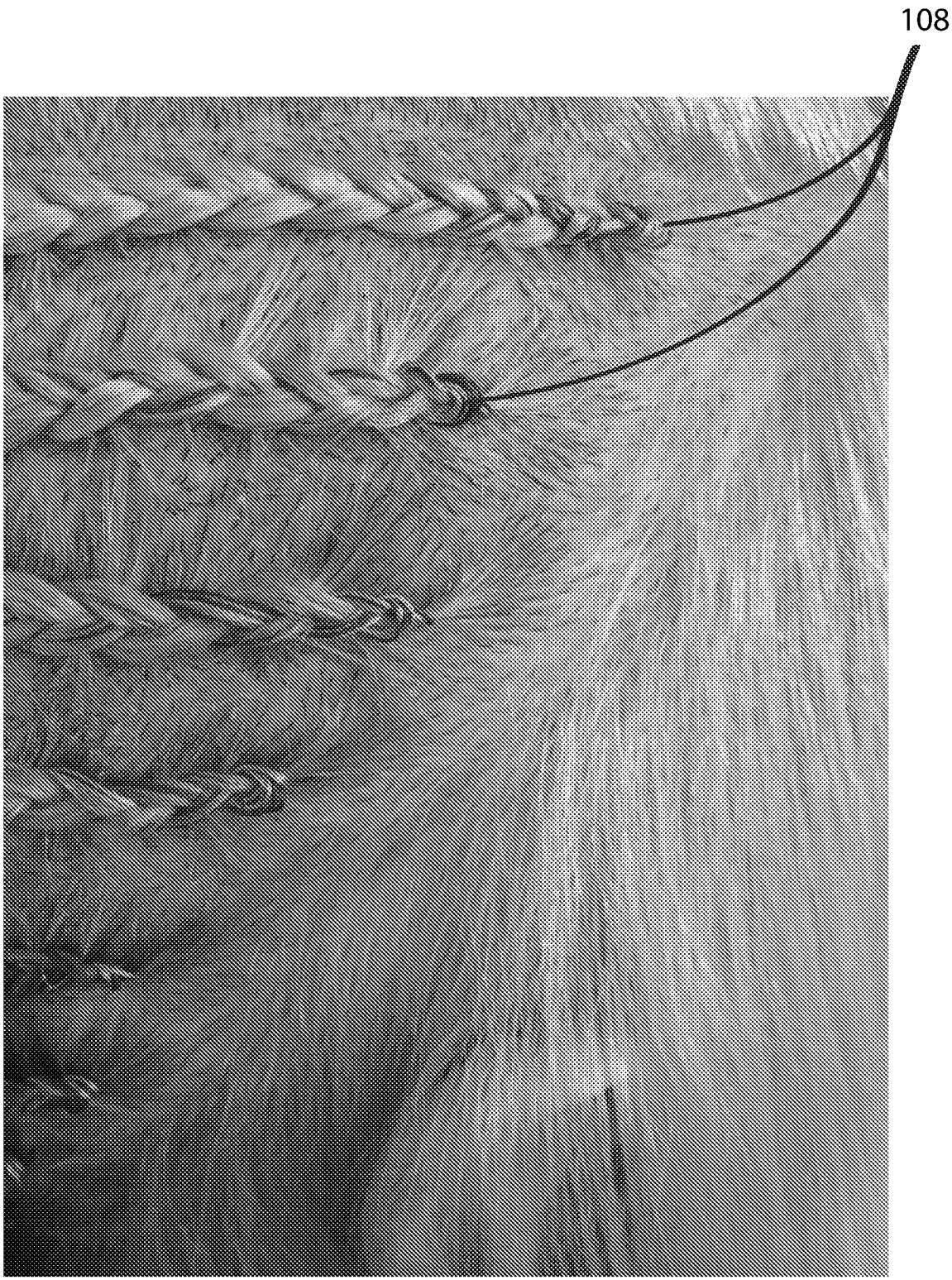


Figure 1b

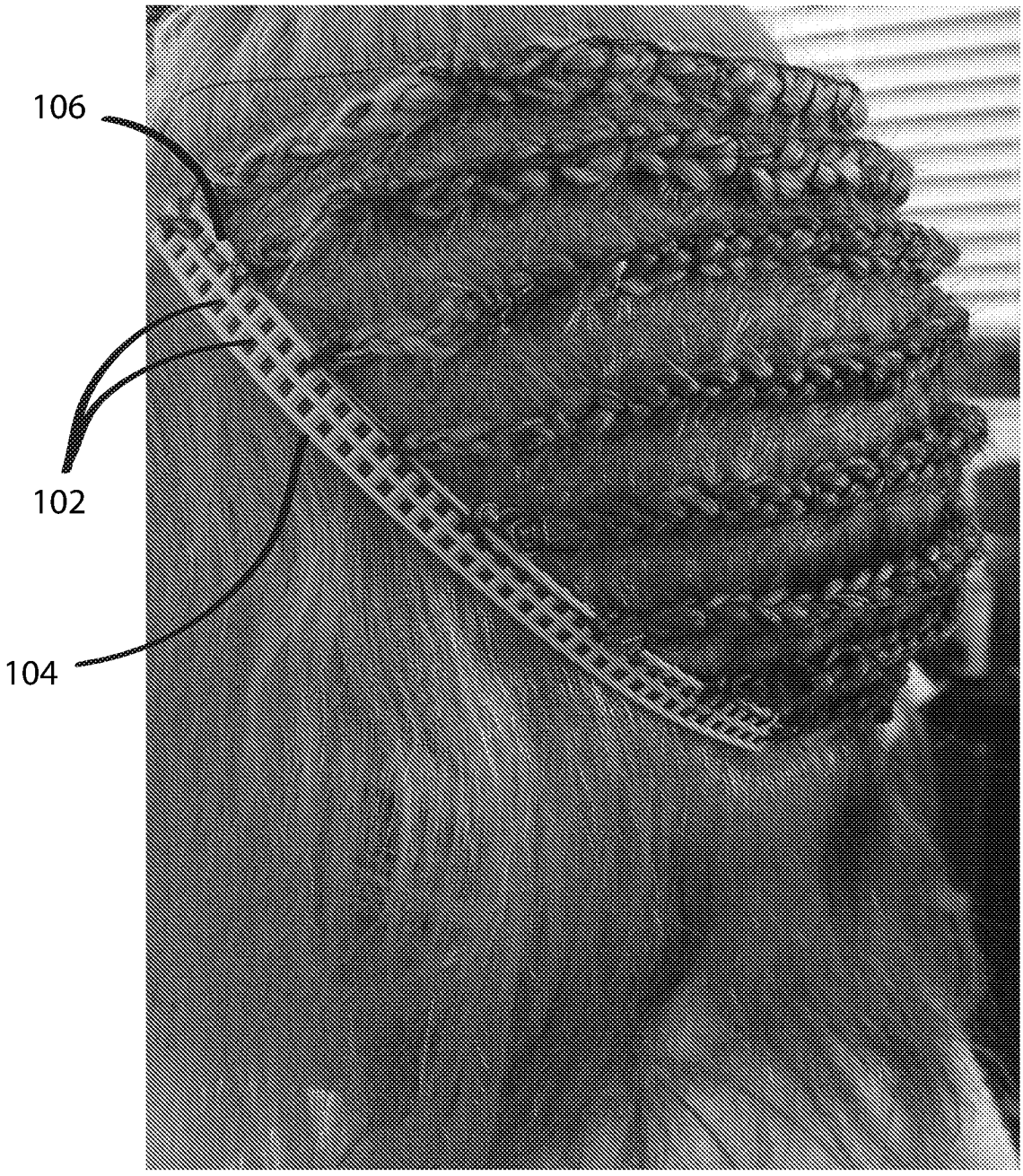


Figure 1c

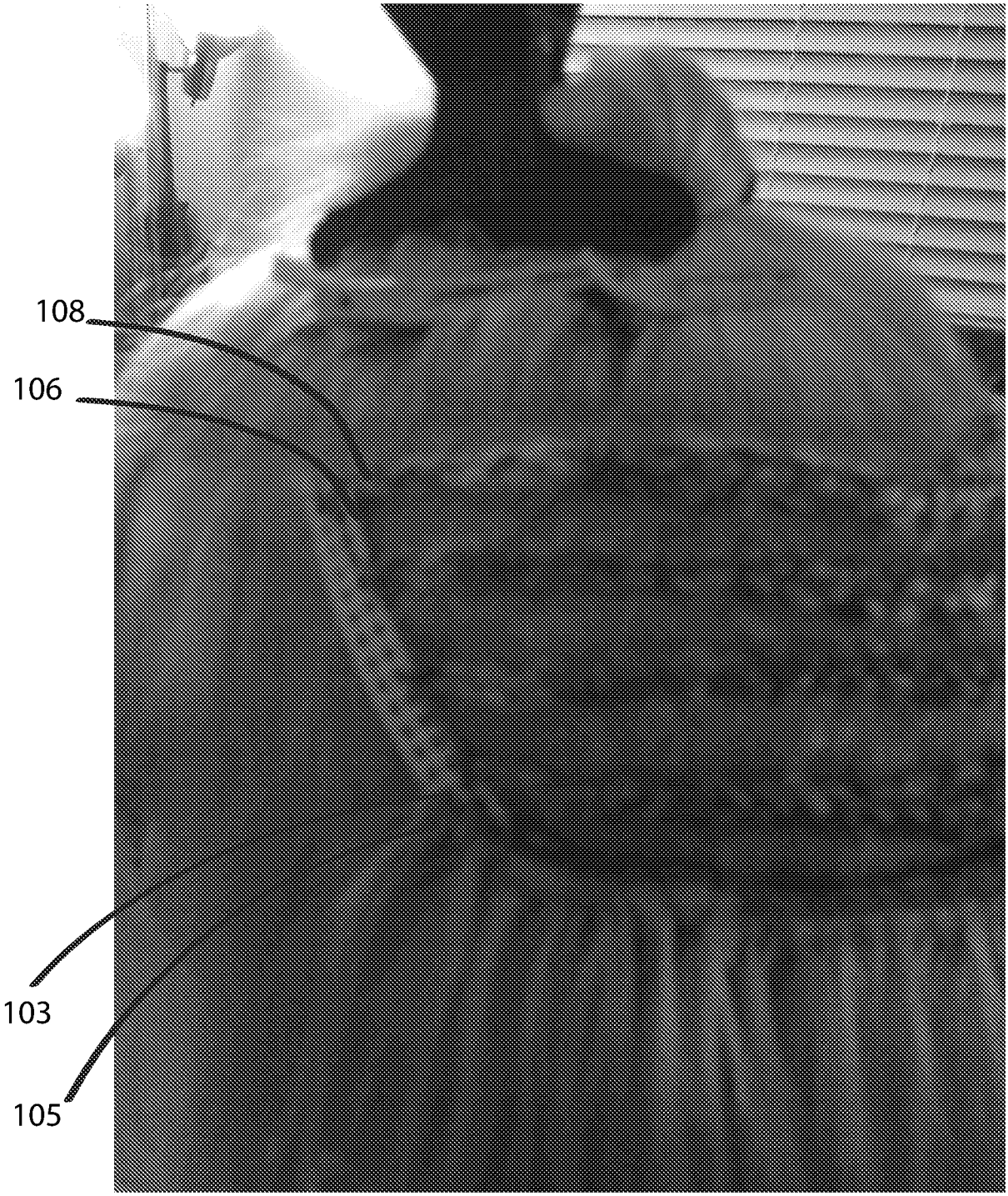


Figure 1d

Figure 1e

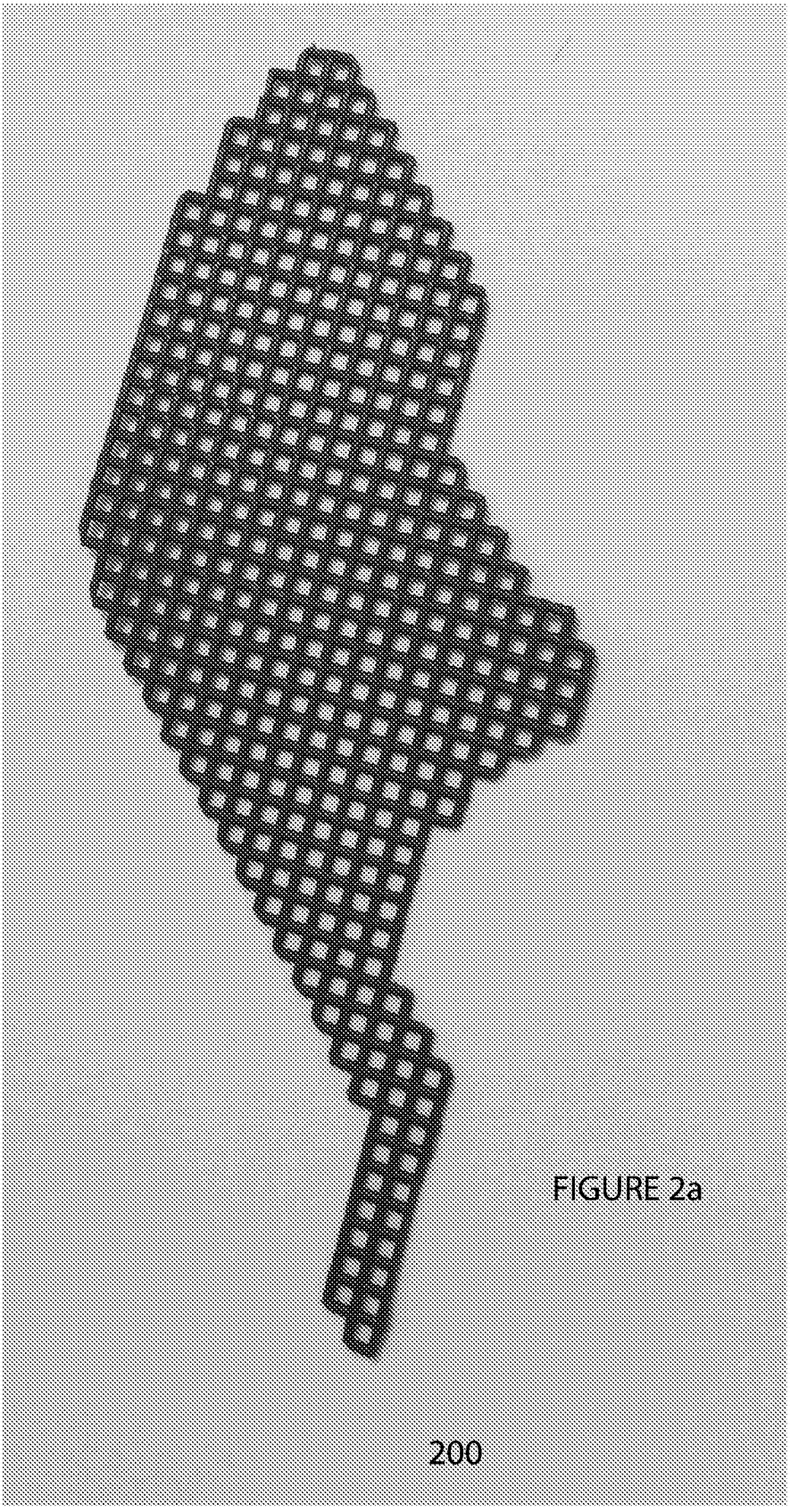
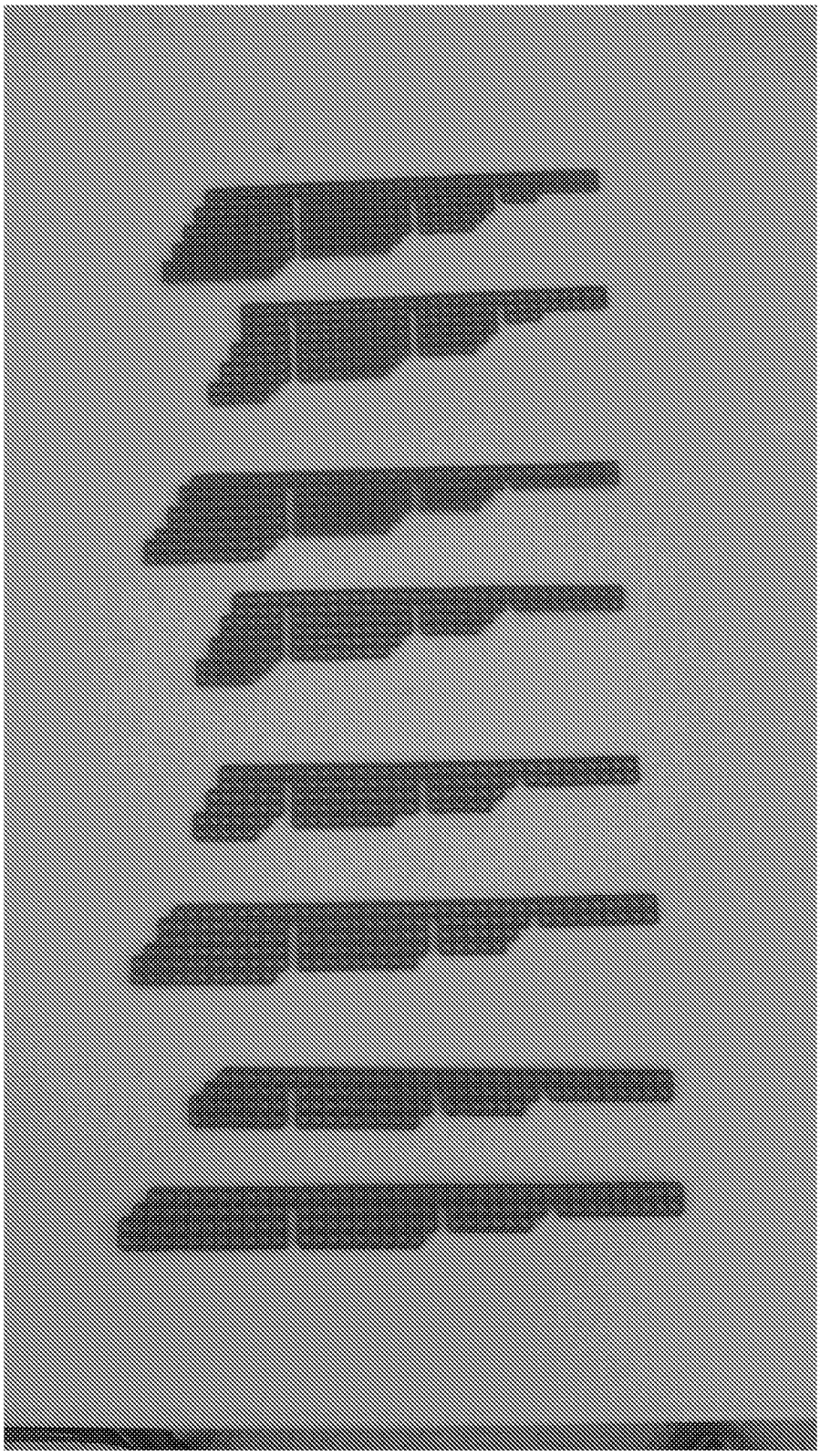


FIGURE 2a

FIGURE 2b

FIGURE 2c

FIGURE 2d



300

FIGURE 3a

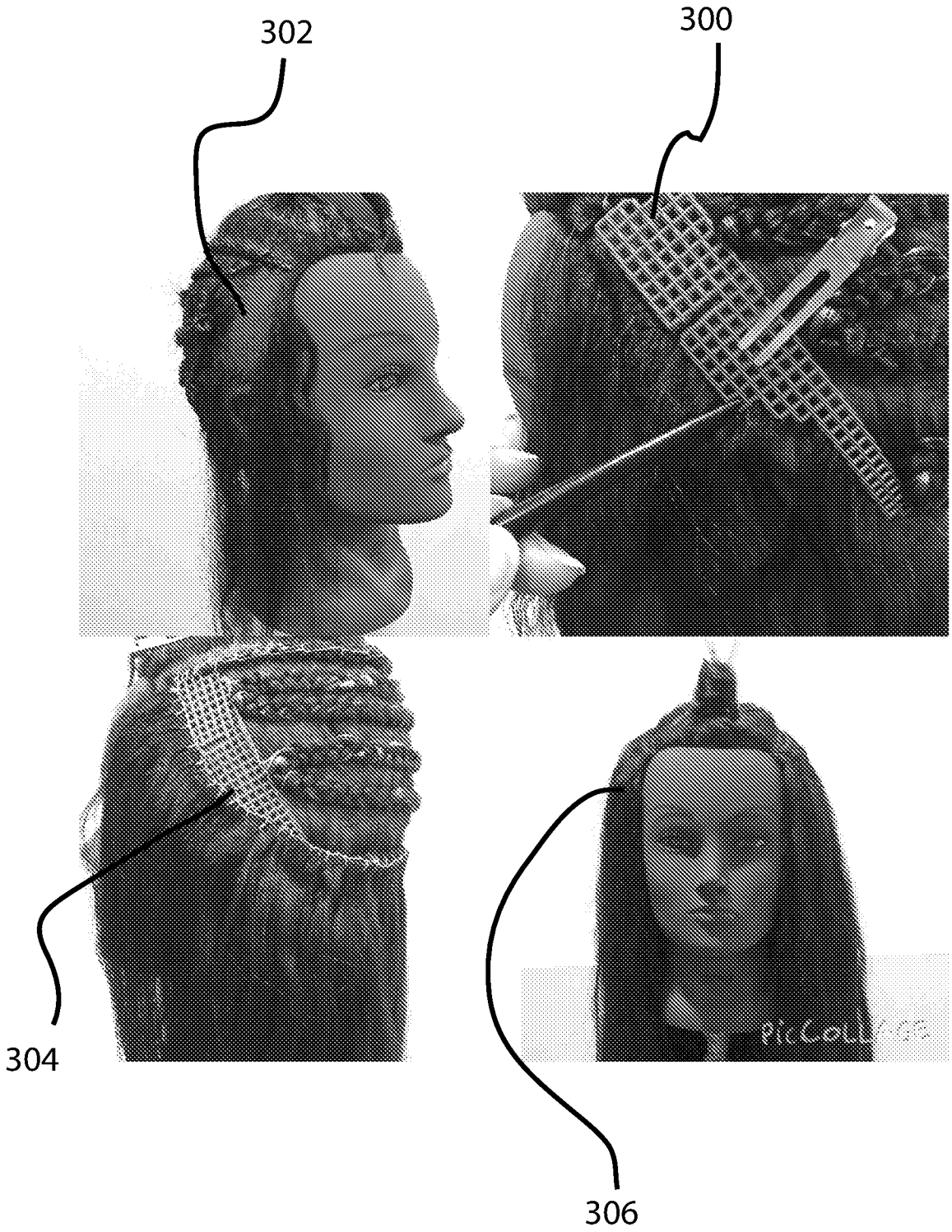


FIGURE 3b

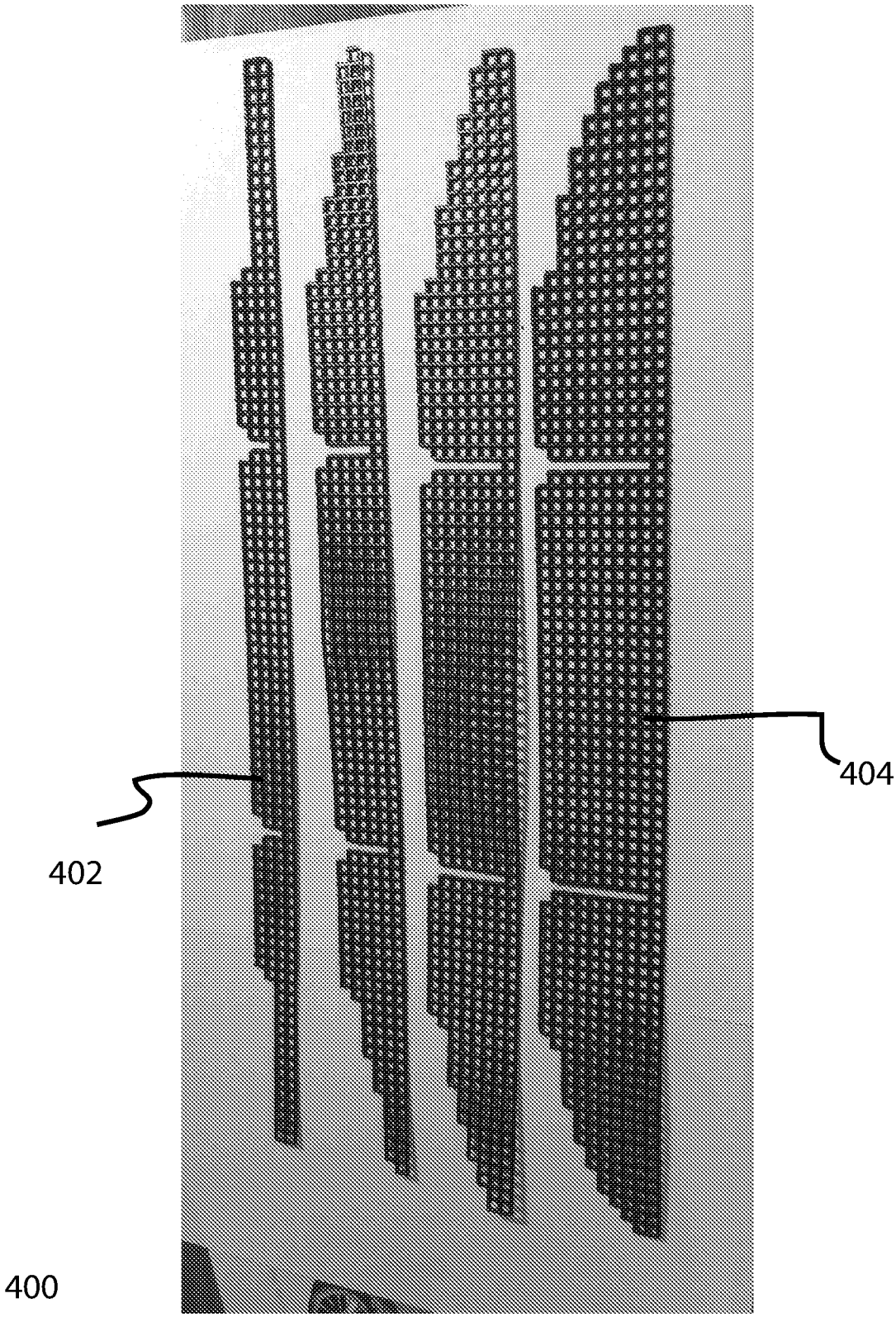


FIGURE 4a

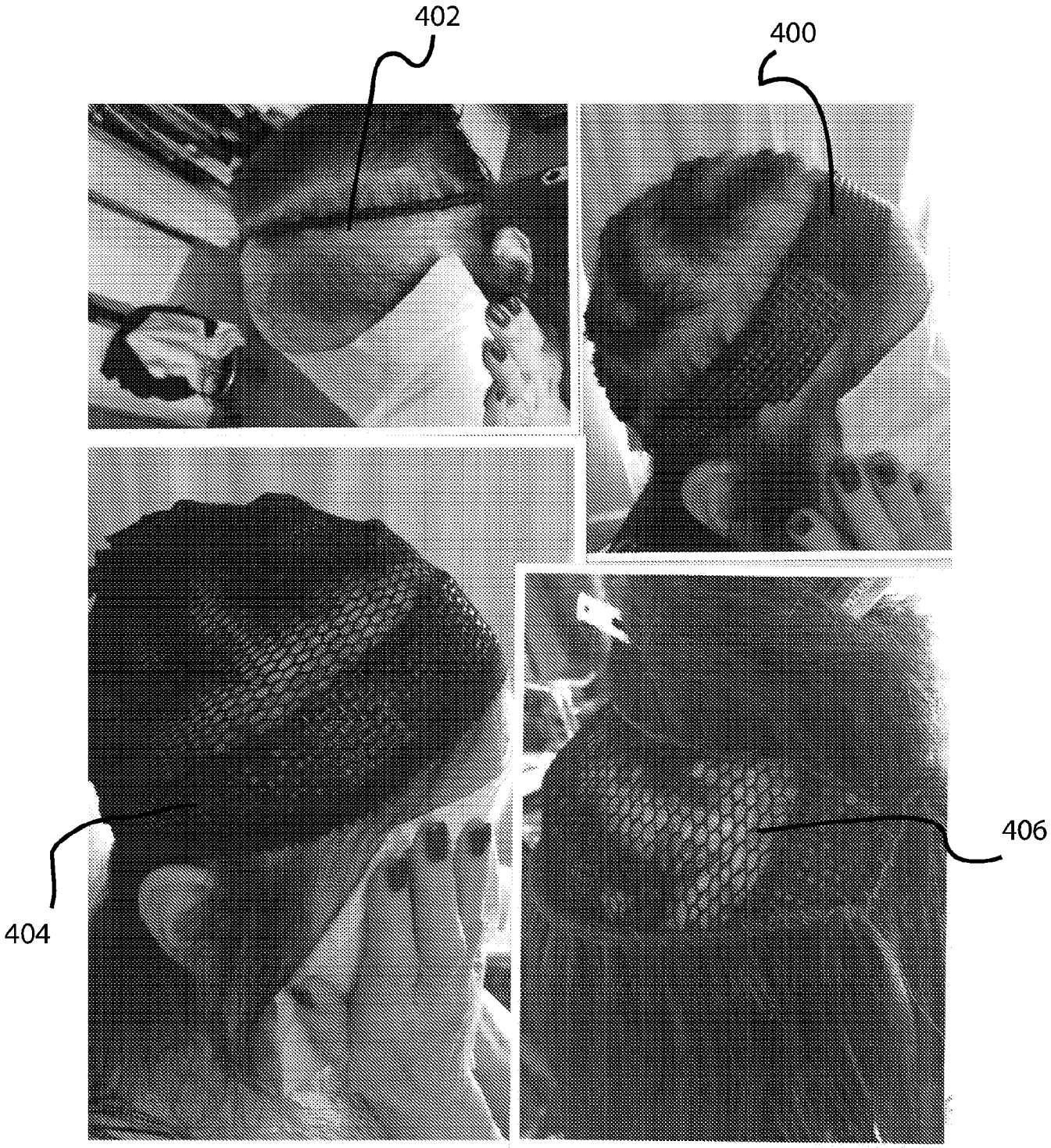


FIGURE 4b

FIGURE 4c

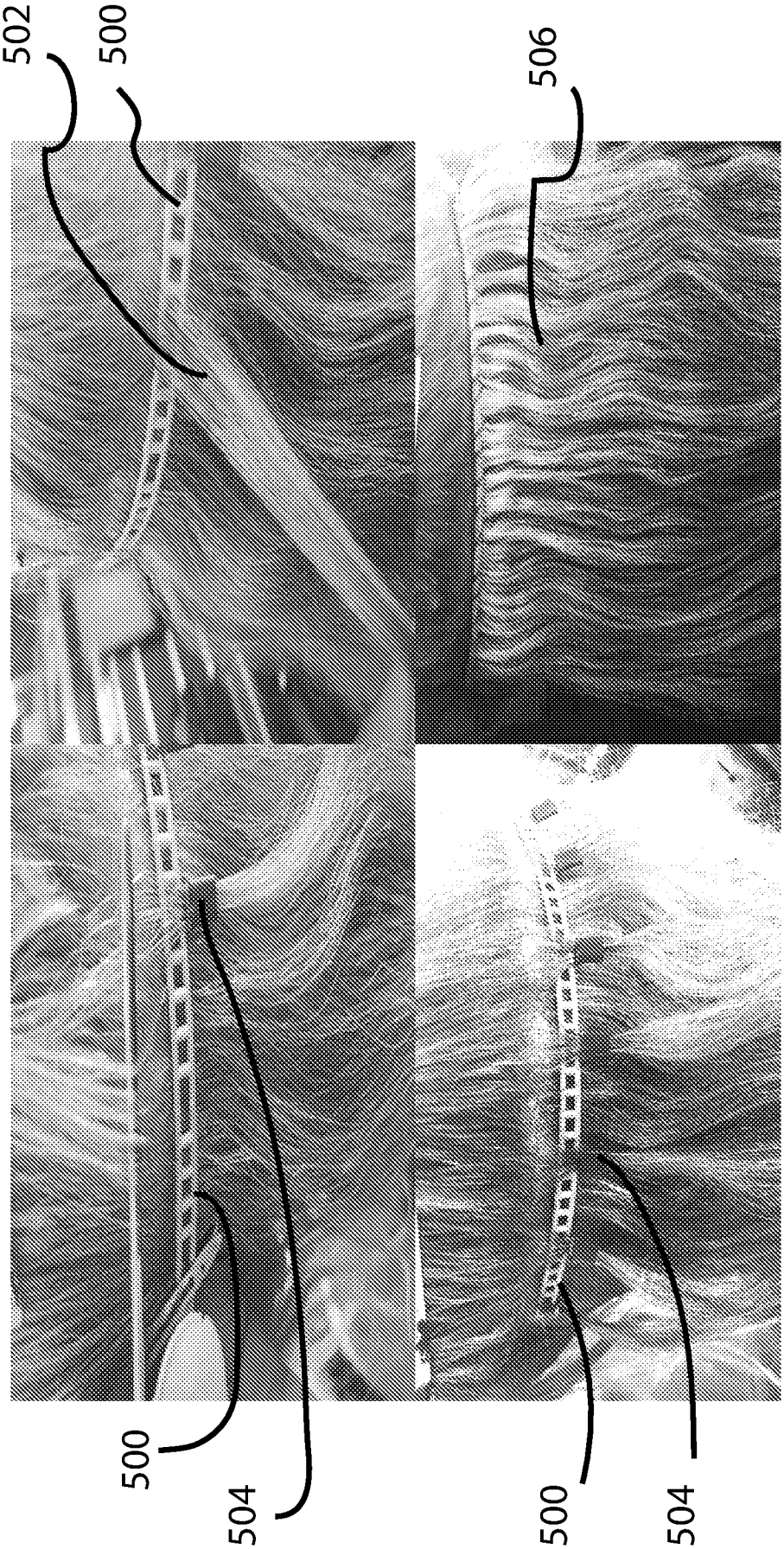


FIGURE 5a

FIGURE 5b

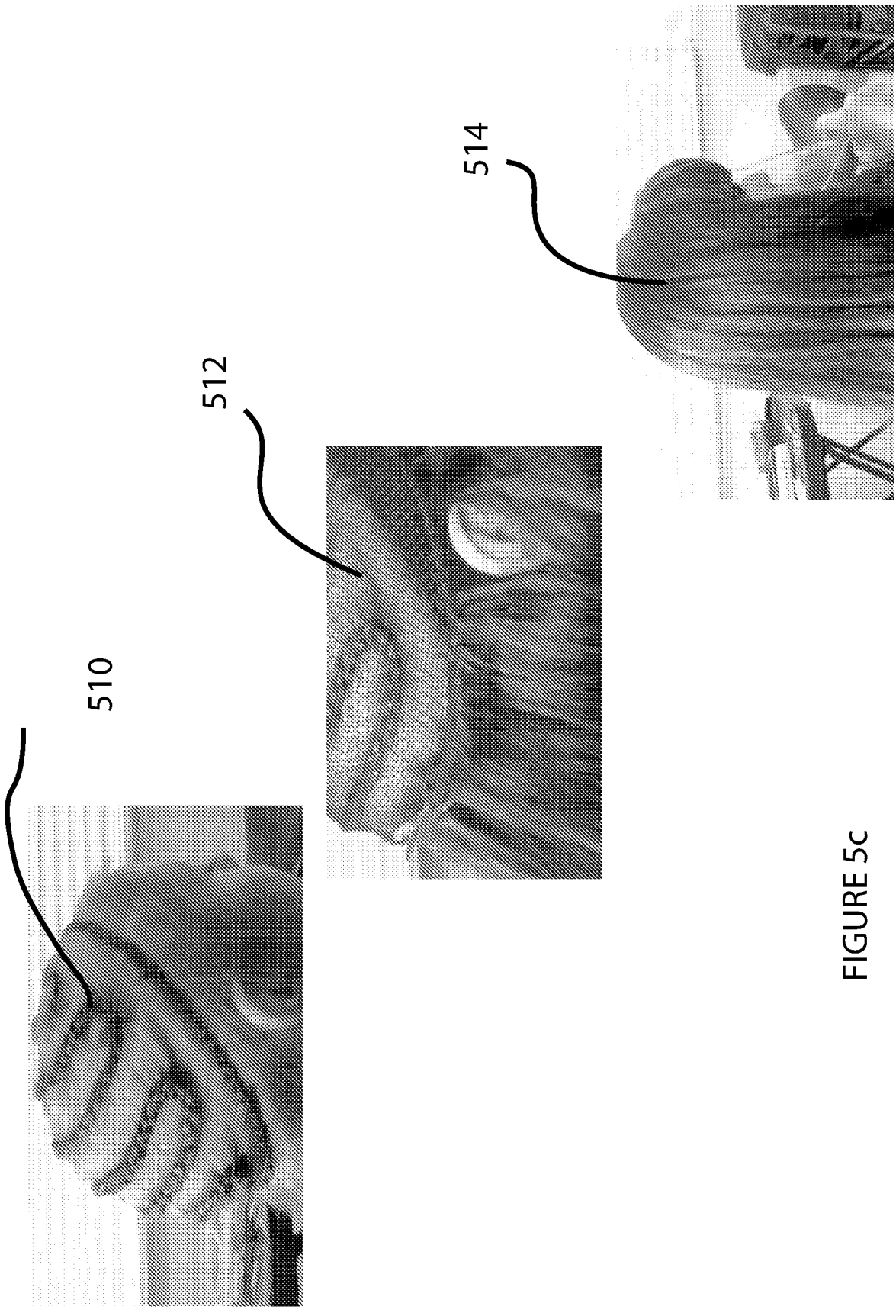


FIGURE 5c

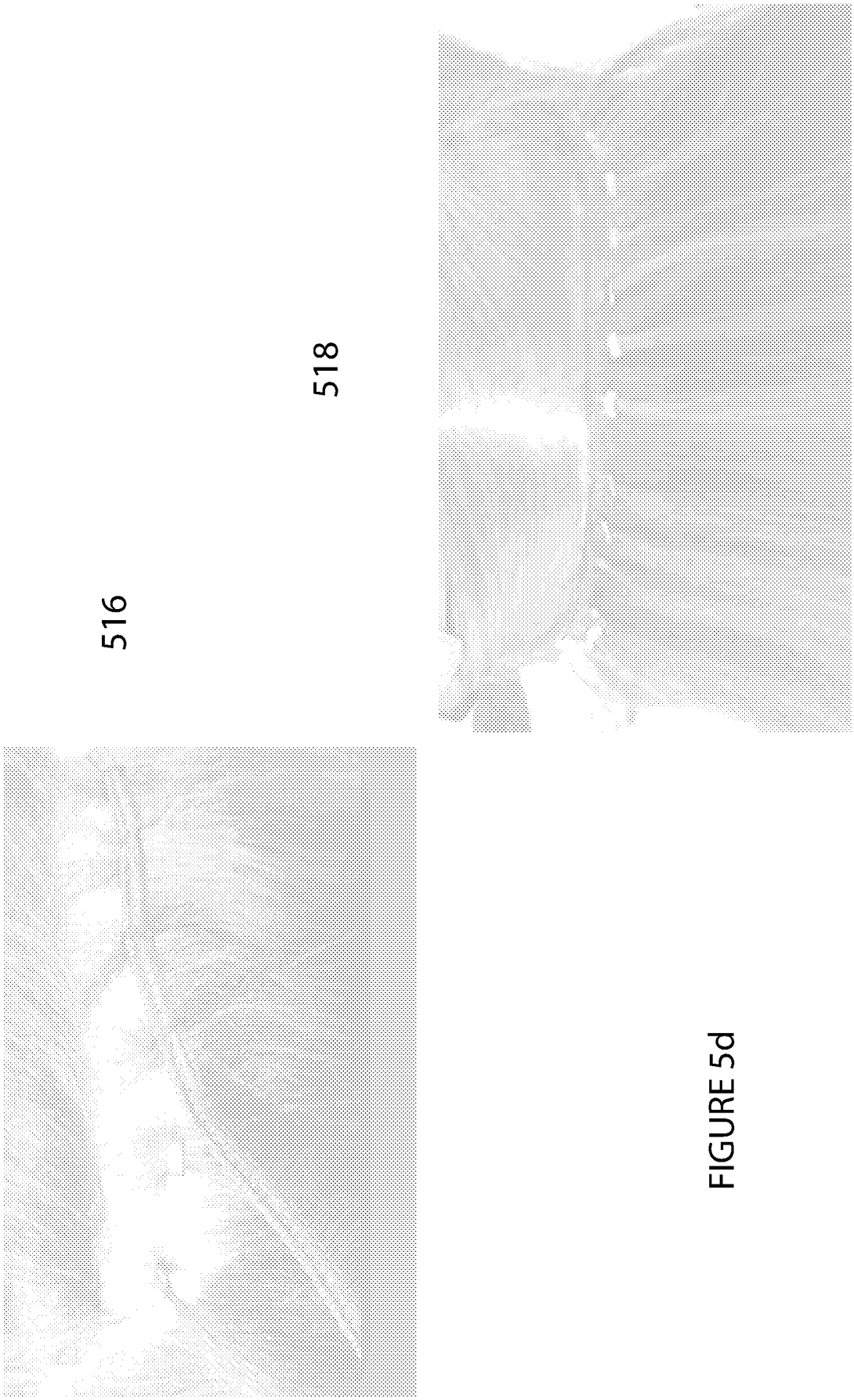


FIGURE 5d

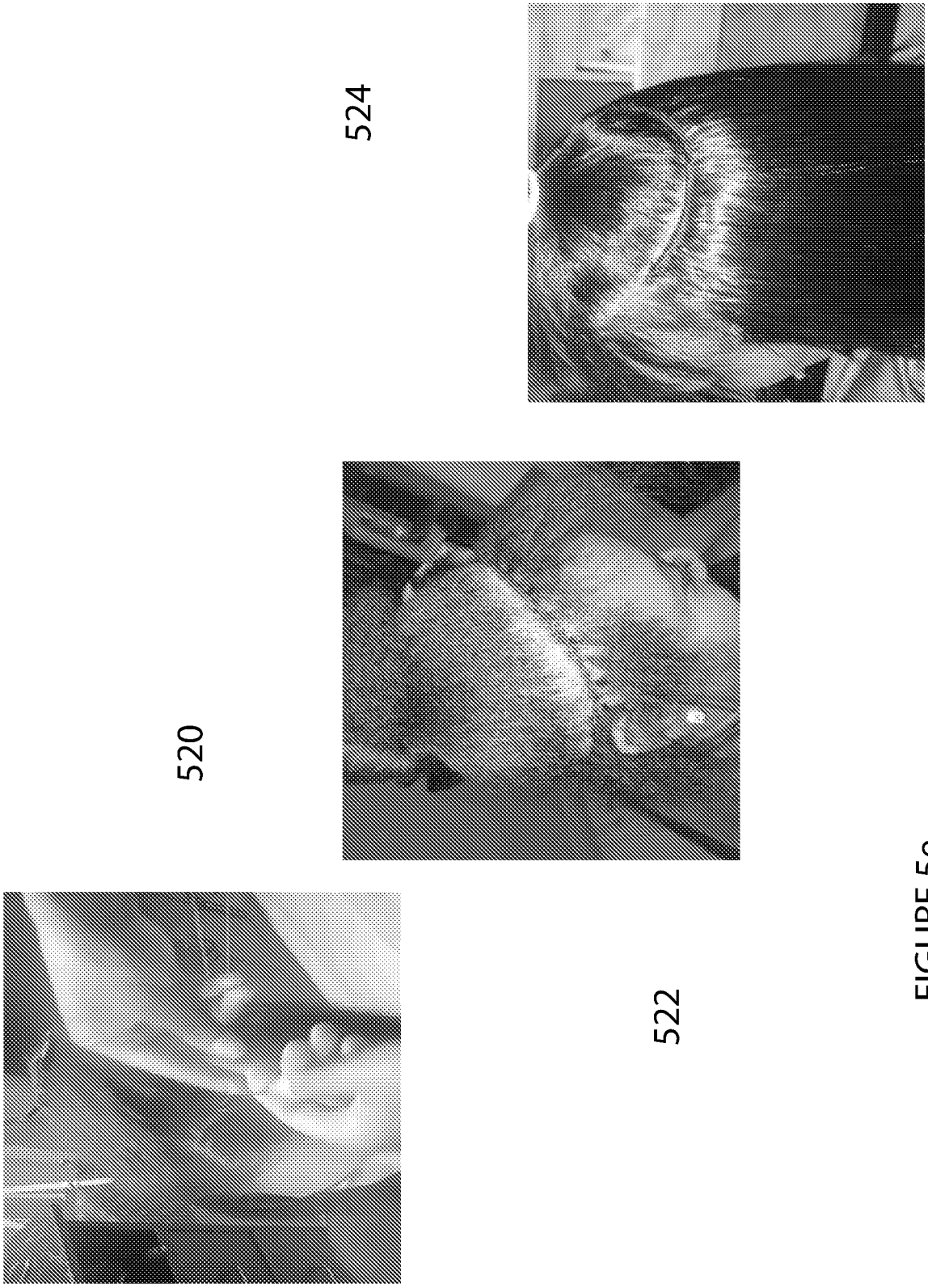


FIGURE 5e

526

528

530

FIGURE 5f

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 16/65675

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A41G 5/00 (2017.01)
CPC - A41G 5/006, A41G 5/0086
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC (8): A41G 5/00 (2017.01)
CPC: A41G 5/006, A41G 5/0086

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
IPC (8): A41G3/00 (2017.01) (keyword limited; terms below)
CPC: A41G5/00, A41G5/0013, A41G5/002, A41G5/004, A41G5/0046, A41G5/0053, A41G 3/005, A41G3/00

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google; Google Web; PatBase; Search Terms Used: Weav*, weft*, extension*, insert*, net*, screen*, web*, lace*, aperture*, buddy*, hold*, mesh, assist*, aid*, install*, help*, device*, apparatus*, templat*, member, accessor*, gadget, articl*, gear*, gimmick*, invention, mean*, braid*, cornrow*, canerow*, hair*, head*, attach*, sew*, secure*, thread*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2015/0296911 A1 (Hiskey) 22 October 2015 (22.10.2015), entire document, especially fig. 1a-1e; claims 1-4; para [0020-0021]; para [0023]	1-4
X	US 8,978,664 B2 (Springfield-Thomas) 17 March 2015 (17.03.2015), entire document	1-4
X	US 2013/0098380 A1 (Kim) 25 April 2013 (25 April 2013), entire document	1-4
X	US 2014/0000641 A1 (Lewis et al.) 02 January 2014 (02.01.2014), entire document	1-4
Y	DE 10 2010 011 333 A1 (SUEDDEUTSCHE HAARVEREDELUNG FISCHBACH & MILLER GMBH & CO KG) 15 September 2011 (15.09.2011), entire document	1-4
Y	US 7,343,921 B2 (Salinas) 18 March 2008 (18.03.2008), entire document	1-4
A	FR 2867035 A1 (DENISE) 09 September 2005 (09.09.2005), entire document	1-4
A	GB 572,226 A (Gordon) 27 September 1945 (27.09.1945), entire document	1-4
A	GB 2,327,605 B (Arogundade) 25 July 2001 (25.07.2001), entire document	1-4
A	US 8,905,048 B2 (Peterson et al.) 09 December 2014 (09.12.2014), entire document	1-4

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
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"P" document published prior to the international filing date but later than the priority date claimed
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Date of the actual completion of the international search	Date of mailing of the international search report
14 March 2017	17 APR 2017

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