US 20230248098A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0248098 A1**

Leonard (43) **Pub. Date: Aug. 10, 2023**

(54) **ADJUSTABLE HAIR EXTENSION SECTIONING APPARATUS**

(71) Applicant: **Dominique Leonard**, Old Bridge, NJ (US)

(72) Inventor: **Dominique Leonard**, Old Bridge, NJ (US)

(21) Appl. No.: **18/165,753**

(22) Filed: **Feb. 7, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/307,325, filed on Feb. 7, 2022.

Publication Classification

(51) **Int. Cl.**

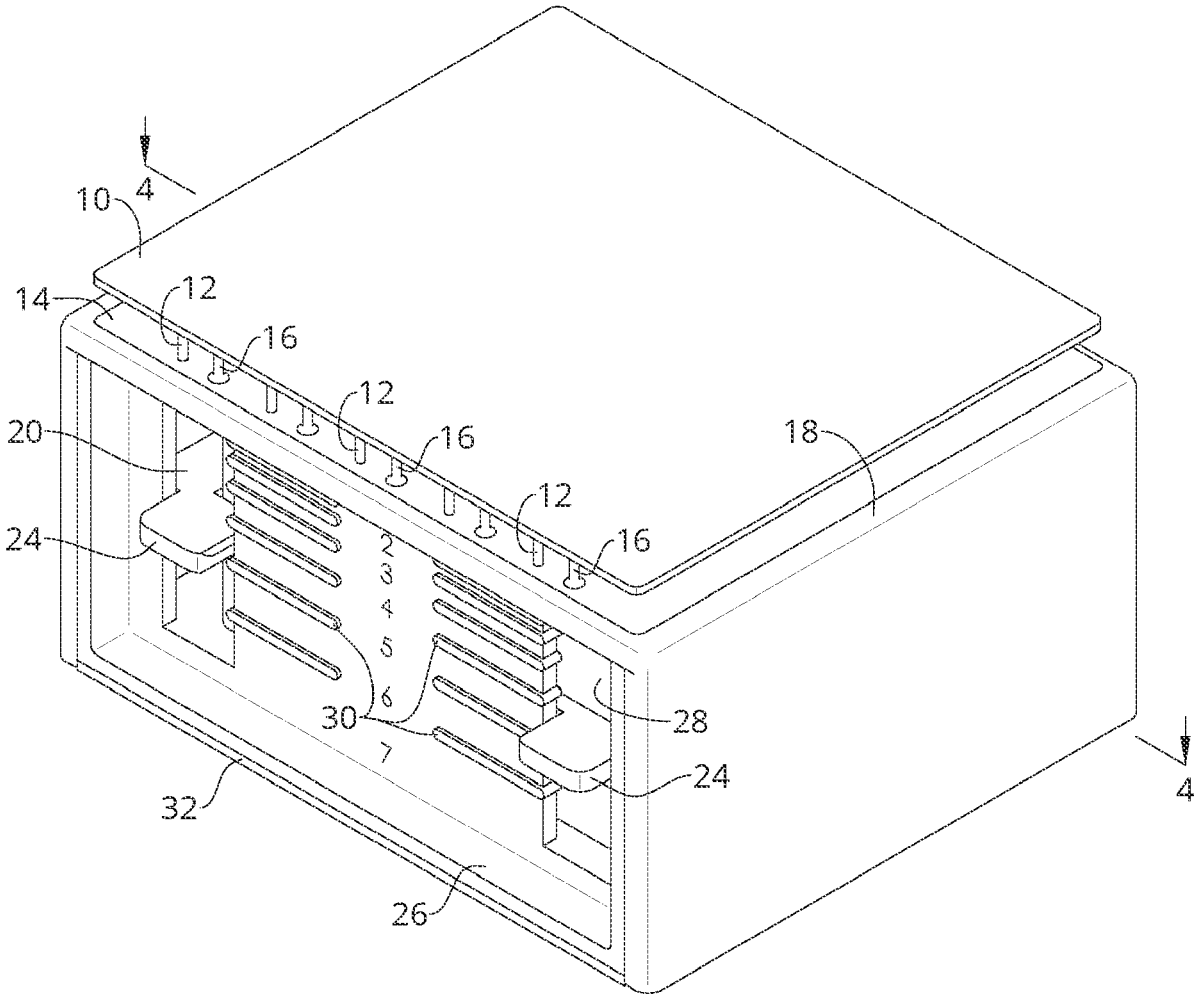
A41G 5/00	(2006.01)
A45D 2/00	(2006.01)

(52) **U.S. Cl.**

CPC ***A41G 5/004*** (2013.01); ***A45D 2/00*** (2013.01); *A45D 2002/005* (2013.01)

(57) **ABSTRACT**

A hair extension sectioning apparatus includes a unitary body having a horizontal platform with parallel vertical protrusions forming slots between the protrusions. An adjacent guide panel also extends vertically from the platform. A unitary slotted depth selection plate is mounted to the body. The depth selection plate has parallel slats extending between two arms forming slots that fit the vertical protrusions. The perimeter of the plate has lever tabs that extend horizontally beyond the housing. A housing with a top panel extending between parallel sidewalls is mounted on the body. A method of preparing hair extensions for braiding includes removing the housing; adjusting the depth selection plate to a position identified using the guide panel; and distributing a bundle of hair extensions into the slots. The apparatus does the prep work for a braider, speeding up the process, making it more efficient and ensuring consistency.



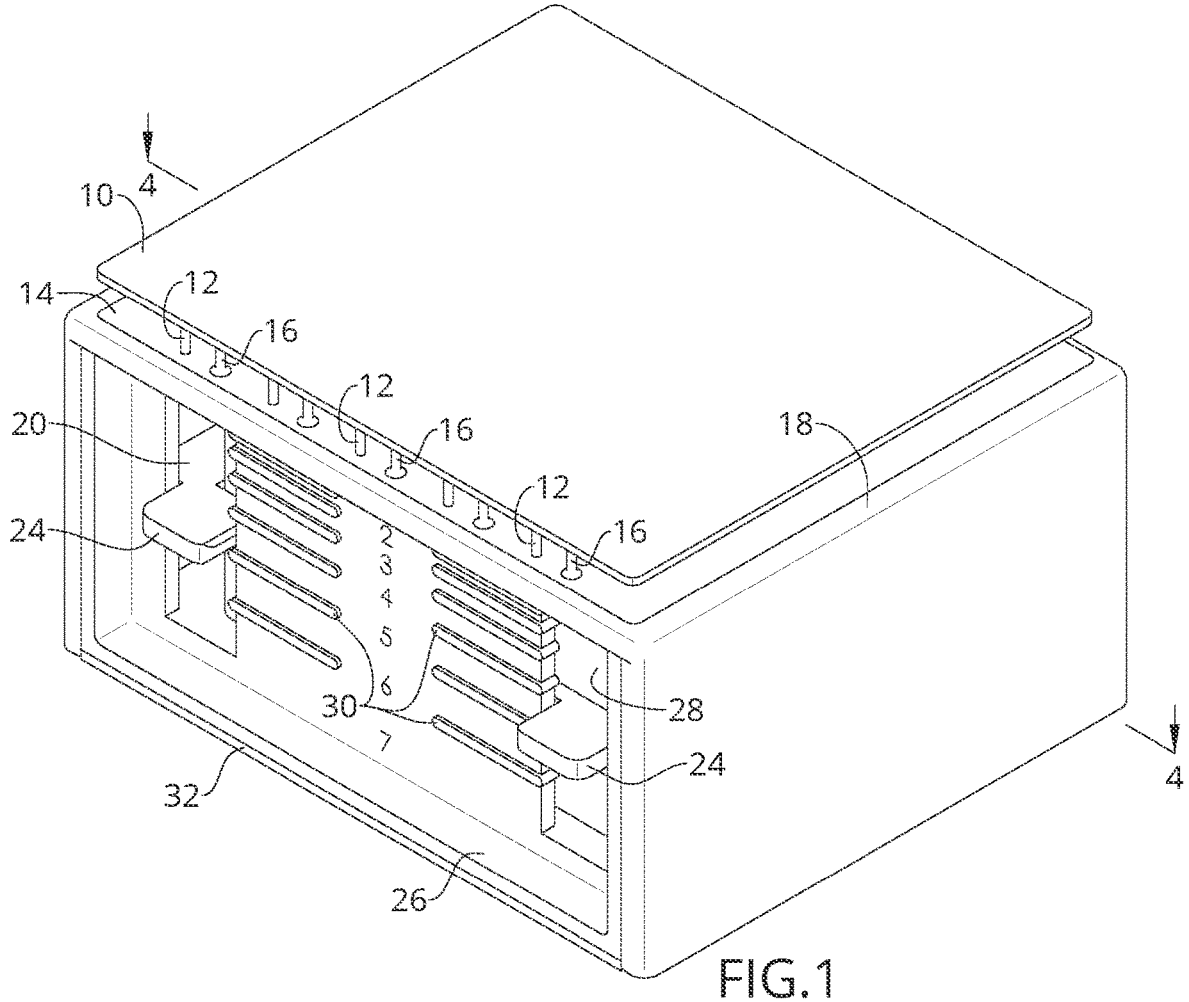

4
10
14
12
16
12
16
12
16
18
20
24
2
3
4
5
6
7
30
28
24
32
26
4

FIG.1

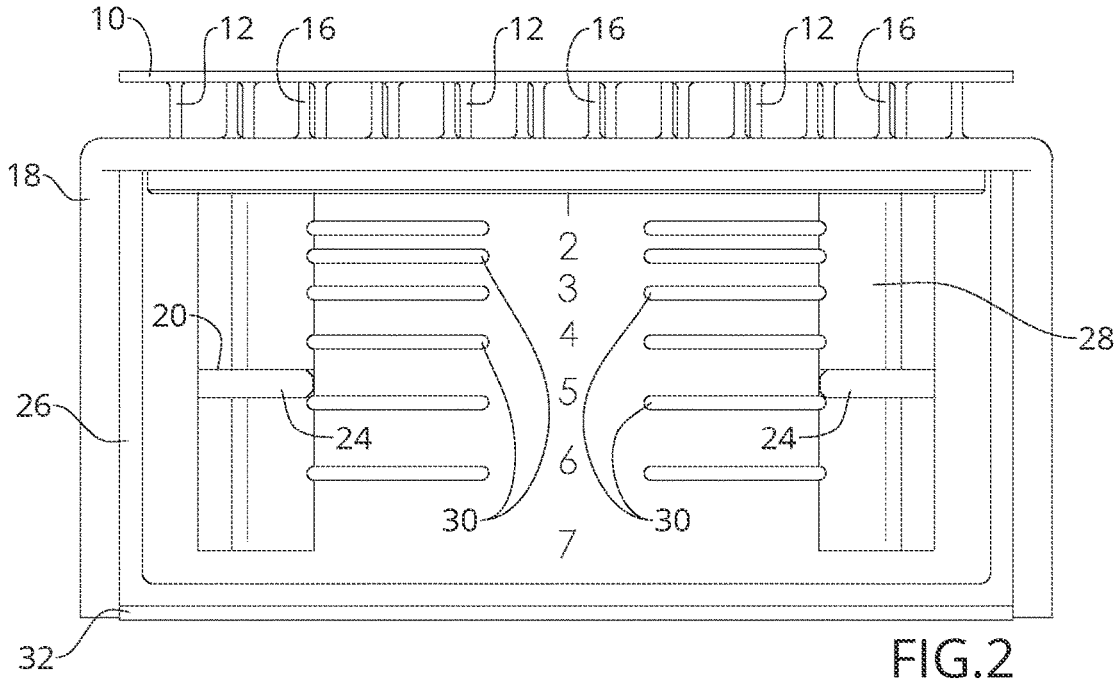

10
12
16
12
16
12
16
18
2
3
4
5
6
7
20
28
26
24
24
30
30
32

FIG.2

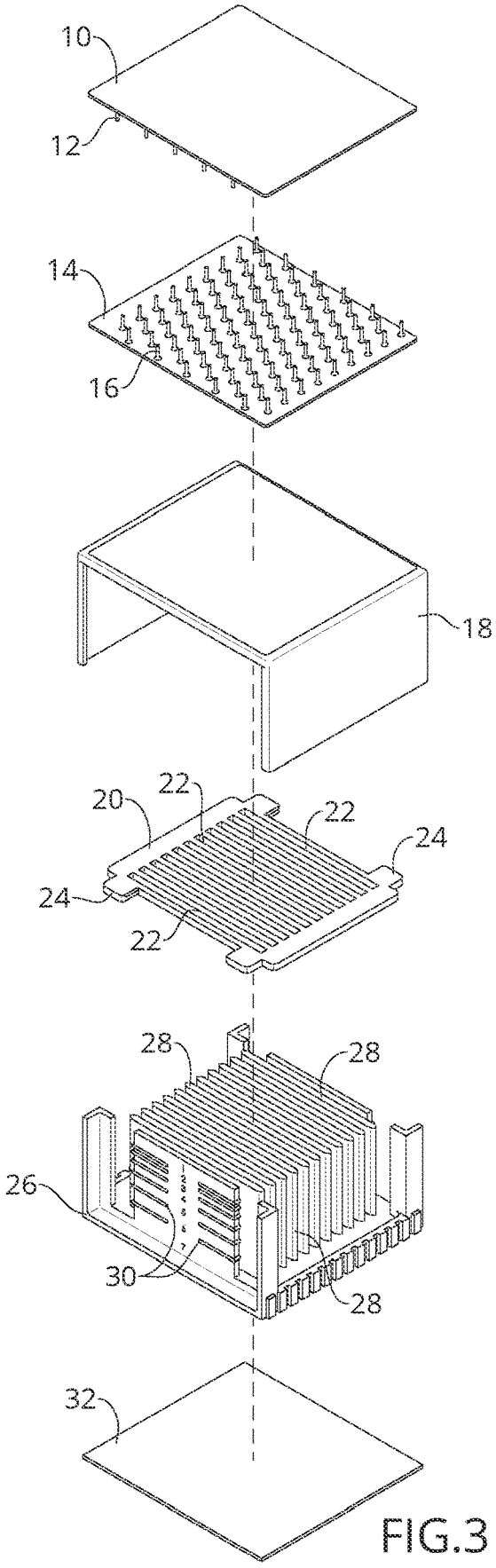


FIG.3

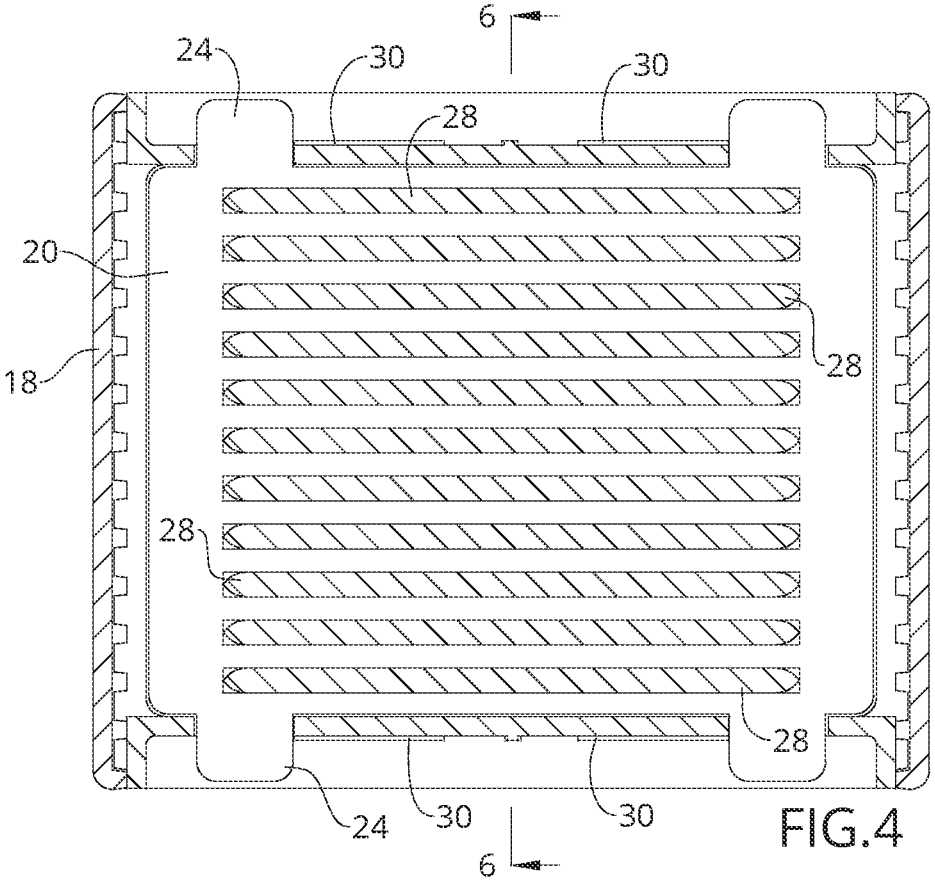

6
24
30
30
28
20
18
28
28
28
24
30
30
6

FIG.4

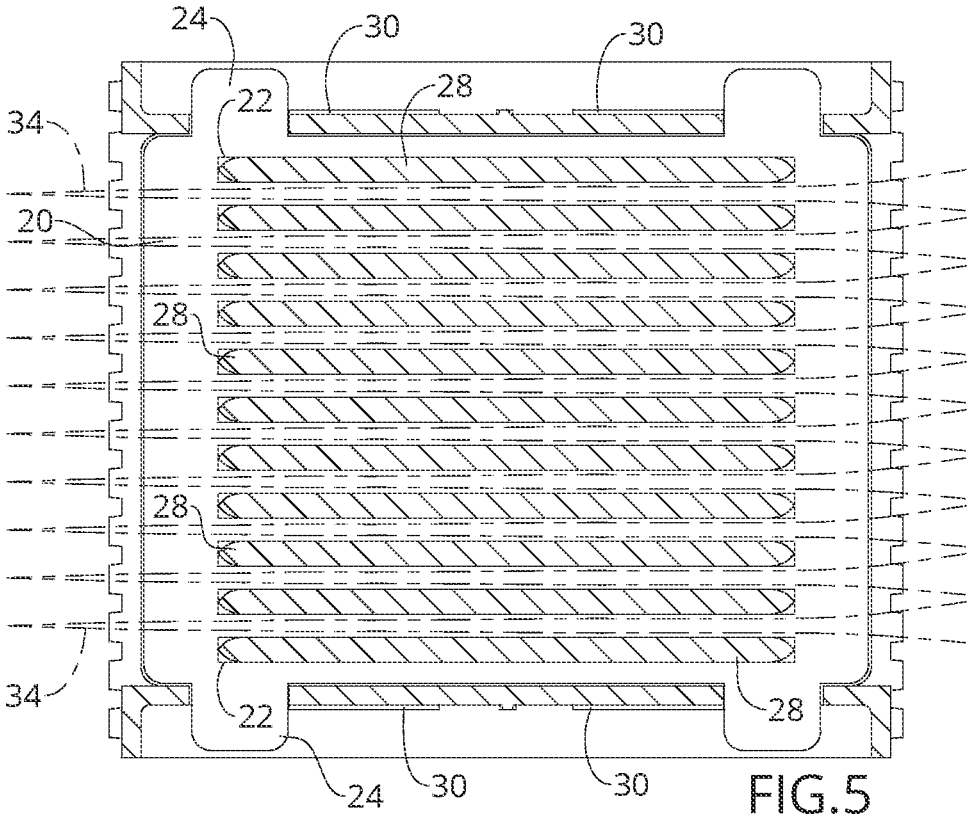

24
30
30
22
28
34
20
28
28
34
22
28
24
30
30

FIG.5

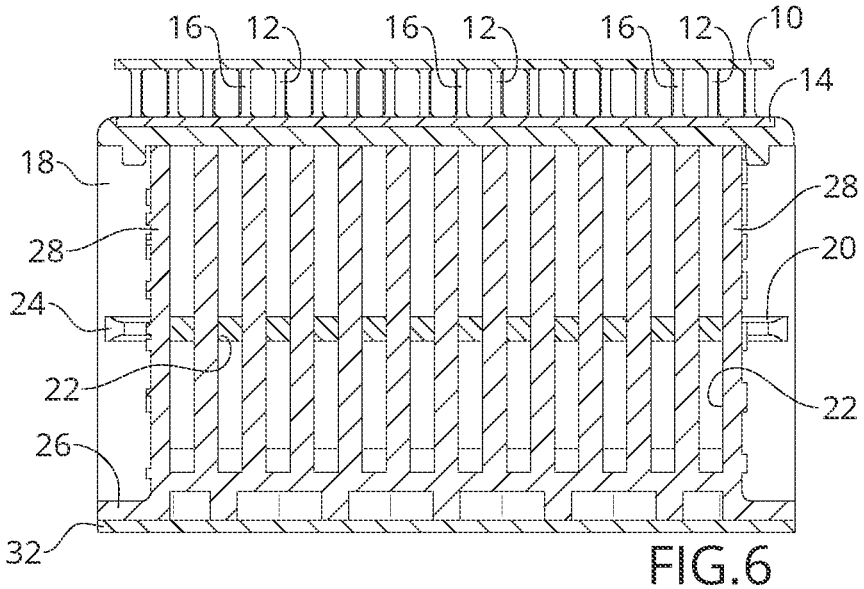


FIG.6

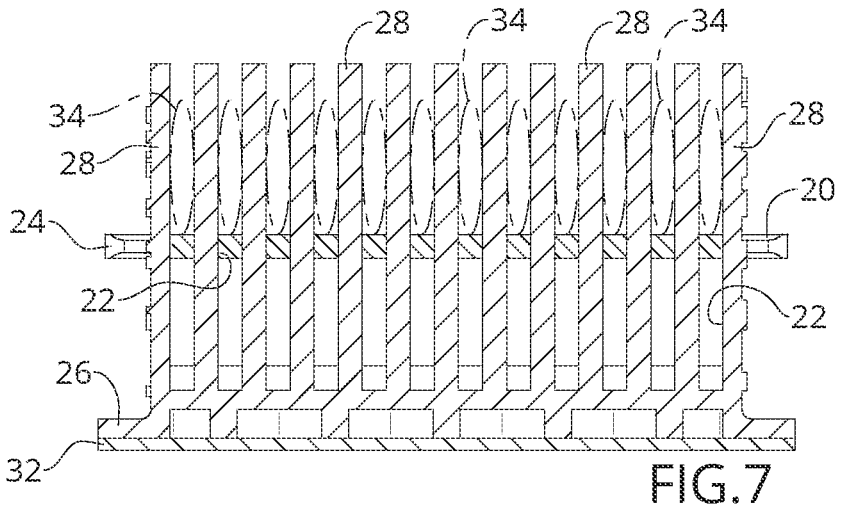


FIG.7

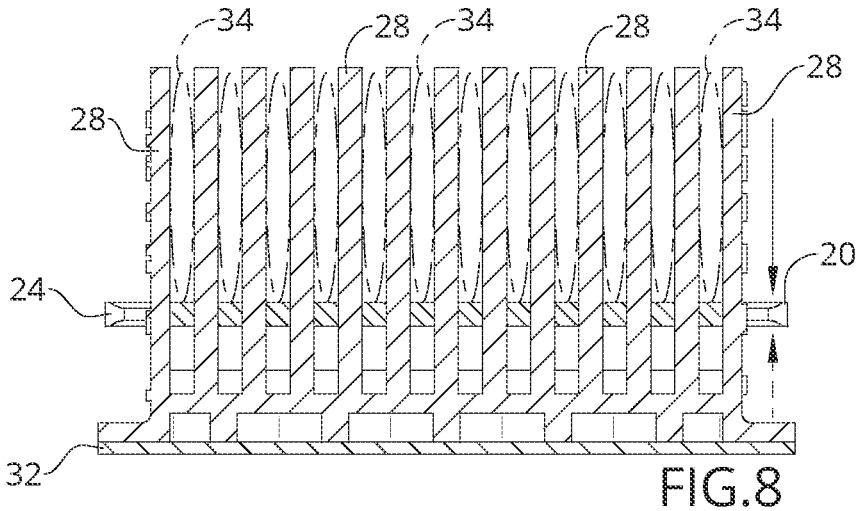


FIG.8

ADJUSTABLE HAIR EXTENSION SECTIONING APPARATUS

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of priority of U.S. provisional application No. 63/307,325, filed Feb. 7, 2022, the contents of which are herein incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to braiding hair extensions and, more particularly, to an adjustable hair extension sectioning apparatus.

[0003] Hair extensions are natural or synthetic hairs that are attached to the natural hair of the wearer to simulate the appearance of hair having various characteristics such as length, thickness, volume, texture, color and style. One known method of installing hair extensions involves braiding the hair extensions into the natural hair of the wearer. A stylist may prepare the hair extensions by first separating thick bundles of the hair extension strands into manageable portions. Each manageable portion may need to be stretched to facilitate braiding of the extensions. Most braiding hair extensions come in a bundle and must be manually separated into the desired dimensions for a braid. As a result, braiders using braid extensions for styling need a great deal of time to prepare before braiding, which reduces overall productivity. The time-consuming preparation limits the number of clients the braider can style in a given timeframe. Moreover, manual separating or sectioning tends to result in inaccurate and inconsistent lock sizing, compromising the overall appearance of the braids.

[0004] As can be seen, there is a need for a means of quickly and consistently separating a bundle of hair extensions.

SUMMARY OF THE INVENTION

[0005] In one aspect of the present invention, a hair extension sectioning apparatus comprises a unitary body having a horizontal platform; a plurality of parallel vertical protrusions extending therefrom, forming a first plurality of slots therebetween; and a guide panel extending vertically from the horizontal platform, adjacent to the parallel vertical protrusions; a unitary slotted depth selection plate mounted to the body, the unitary slotted depth selection plate having two arms; parallel slats extending between the two arms, forming a second plurality of slots therebetween, the second plurality of slots configured to accommodate the plurality of parallel vertical protrusions; and lever tabs extending from a perimeter of the unitary slotted depth selection plate; and a housing mounted on the unitary body, said housing having parallel sidewalls with a top panel extending therebetween; wherein the lever tabs extend horizontally beyond the housing.

[0006] In another aspect of the present invention, a method of preparing hair extensions for braiding comprises removing the housing of the hair extension sectioning apparatus; adjusting the unitary slotted depth selection plate to a predetermined position identified using the guide panel; and distributing a bundle of hair extensions into the plurality of slots.

[0007] The inventive apparatus does the prep work for a braider, thus speeding up the process and making it more efficient. Moreover, the sectioning tool ensures consistency. As a result, the braider can be more productive.

[0008] These and other features, aspects and advantages of the present invention will become better understood with reference to the following drawings, description, and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. **1** is a perspective view of an apparatus for sectioning and stretching hair extensions according to an embodiment of the present invention;

[0010] FIG. **2** is a front elevation view thereof;

[0011] FIG. **3** is an exploded view thereof;

[0012] FIG. **4** is a sectional view thereof, taken along line **4-4** in FIG. **1**;

[0013] FIG. **5** is another sectional view thereof, shown in use with the housing removed;

[0014] FIG. **6** is another sectional view thereof, taken along line **6-6** in FIG. **4**;

[0015] FIG. **7** is another sectional view thereof, shown in use with the housing removed; and

[0016] FIG. **8** is another sectional view thereof, illustrating a method of adjusting section sizes according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] The following detailed description is of the best currently contemplated modes of carrying out exemplary embodiments of the invention. The description is not to be taken in a limiting sense but is made merely for the purpose of illustrating the general principles of the invention, since the scope of the invention is best defined by the appended claims.

[0018] Broadly, one embodiment of the present invention is an adjustable hair extension sectioning apparatus. The apparatus has sections that are used as a measuring and separating tool to prepare hair extensions for braiding.

[0019] The apparatus comprises a side lever that is used to adjust the section sizes. Once the lever is set to a depth position, it remains in that position until it is reset.

[0020] The apparatus may include an apparatus housing. A plurality of hair extension receivers may be provided in the apparatus housing. Each hair extension receiver may have a width-adjustable receiver space. The hair extension receivers may be arranged in a plurality of adjacent receiver rows, with the receiver spaces of the hair extension receivers in each receiver row registering with each other. The receiver spaces of the hair extension receivers in each receiver row may be configured to receive a bundle of hair fibers corresponding to a hair extension. A receiver space selector assembly may operably engage the hair extension receivers. The receiver space selector assembly may be operable to selectively vary the width of the receiver spaces in the hair extension receivers. Accordingly, the hair extensions may be placed in the receiver spaces of the hair extension receivers in each corresponding receiver row. The receiver space selector assembly may be actuated to facilitate engagement of the hair extension receivers in each receiver row with the corresponding hair extension and securement of the hair extensions. The thusly secured hair extensions may be stretched to facilitate braiding of the hair extensions. After

braiding is completed, the receiver space selector assembly may be deployed to facilitate disengagement of the hair extension receivers in each receiver row from each corresponding hair extension. The braided hair extensions may be removed from the apparatus housing and attached to the natural hair of the wearer.

[0021] In an illustrative implementation of the invention, an apparatus and method suitable for organizing and stretching hair extensions in hair styling may include an apparatus housing having a housing interior. A plurality of hair extension receivers may be provided in the housing interior of the apparatus housing. Each hair extension receiver may have a width-adjustable receiver space. The hair extension receivers may be arranged in a plurality of adjacent receiver rows, with the receiver spaces of the hair extension receivers in each receiver row registering with each other. The receiver spaces of the hair extension receivers in each receiver row may be configured to receive a bundle of hair fibers corresponding to a hair extension. A receiver space selector assembly may operably engage the hair extension receivers. The receiver space selector assembly may be operable to selectively vary the width of the receiver spaces in the hair extension receivers according to the thicknesses of the hair extensions. Accordingly, the hair extensions may be placed in the receiver spaces of the hair extension receivers in each corresponding receiver row. The receiver space selector assembly may be actuated to various positions to facilitate engagement of the hair extension receivers in each receiver row with the corresponding hair extension and securement of the hair extensions. The thusly secured hair extensions may be stretched to facilitate braiding of the hair extensions. After braiding is completed, the receiver space selector assembly may be deployed to facilitate disengagement of the hair extension receivers in each receiver row from each corresponding hair extension. The braided hair extensions may be removed from the apparatus housing and attached to the natural hair of the wearer.

[0022] In a second aspect, each hair extension receiver may be "V" shaped with a pair of diverging receiver arms, and the receiver space may be formed by and between the receiver arms.

[0023] In another aspect, the apparatus housing may have a top housing opening. At least one removable housing cover may be deployable in the top housing opening. At least one cover handle may be provided on each removable housing cover. The removable housing cover or covers may be removed from the top housing opening to expose the hair extension receivers in the housing interior of the apparatus housing.

[0024] In another aspect, a plurality of interlocking bristles may be provided on a lower or interior surface of the housing cover or covers. The bristles may be configured to hold the hair extensions in place while the hair extensions are stretched.

[0025] In another aspect, the apparatus housing may have a front housing opening and a rear housing opening. The hair extensions may extend from the housing interior of the apparatus housing through the front housing opening and the rear housing opening.

[0026] In another aspect, a plurality of spaced-apart housing teeth may extend from the apparatus housing at the front housing opening. A plurality of teeth gaps may be formed by and between the housing teeth. The teeth gaps may align or register with the respective receiver spaces of the hair extension receivers in each receiver row. The teeth gaps may be sized and configured to receive the respective hair extensions as the hair extensions extend from the housing interior of the apparatus housing.

[0027] In another aspect, the apparatus housing may have a front housing edge and a rear housing edge. The plurality of housing teeth may extend from the front housing edge.

[0028] In another aspect, the apparatus housing may include a lower housing panel and a pair of spaced-apart side housing panels. The front housing opening and the rear housing opening may be formed by and between the lower housing panel and the side housing panels.

[0029] In another aspect, the front housing edge and the rear housing edge of the apparatus housing may extend along the lower housing panel.

[0030] In another aspect, the receiver arms of each hair extension receiver may extend from the lower housing panel into the housing interior.

[0031] In another aspect, each receiver arm of each hair extension receiver may have a lower arm end attached to the lower housing panel and an upper arm end opposite the lower arm end.

[0032] In another aspect, the receiver space selector assembly may slidably engage the receiver arms of each hair extension receiver between the lower arm end and the upper arm end of each.

[0033] In another aspect, a pair of parallel frame members may extend between the side housing panels. The front housing opening and the rear housing opening may be formed by and between the lower housing panel, the side housing panels and each corresponding one of the frame members.

[0034] In another aspect, the top housing opening may be formed by and between the side housing panels and the frame members.

[0035] In another aspect, a housing shoulder may be recessed in the top housing opening. At least one removable housing cover may seat on the housing shoulder.

[0036] In another aspect, a housing slot may be provided in at least one of the side housing panels of the apparatus housing.

[0037] In another aspect, the receiver space selector assembly may include a receiver plate. A plurality of receiver arm slots may extend through the receiver plate. The receiver arms of each hair extension receiver may extend through a corresponding one of the receiver arm slots.

[0038] In another aspect, at least one plate guide may be disposed in the housing interior of the apparatus housing. The receiver plate of the receiver space selector assembly may be slidably disposed on the plate guide.

[0039] In another aspect, at least one receiver plate handle may operably engage the receiver plate of the receiver space selector assembly. The receiver space handle may be operable to move the receiver plate between a plurality of positions in which the receiver plate adjusts the size or width of the receiver space of each hair extension receiver according to the width or thickness of the hair extensions placed into the receiver spaces of the hair extension receivers.

[0040] In another aspect, the receiver plate handle may be movable to and between an "L" (large section) setting and an "S" (small section) setting. The receiver plate may be configured to increase the size or width of the receiver space of each hair extension receiver to a large size or width in the

L setting and reduce the receiver space of each hair extension receiver to a small size or width in the S setting.

[0041] In another aspect, the receiver plate handle of the receiver space selector assembly may be operable to move the receiver plate to an "M" (medium) setting between the S setting and the L setting. The receiver plate handle may be moved to the M setting to adjust the size of the receiver space of each hair extension receiver to a medium width between the S setting and the L setting.

[0042] In another aspect, the at least one receiver plate handle of the receiver space selector assembly may engage the receiver plate via at least one handle arm.

[0043] In another aspect, at least one handle arm slot may extend through a side housing panel of the apparatus housing. The at least one handle arm may extend through the at least one handle arm slot.

[0044] In some embodiments, the housing may comprise separable components such that the sectioned body of the apparatus may be placed on a base and an upper housing may be attached to the base. In other embodiments, the housing base and upper portion may be a single unit (with top, bottom, left and right sides, for example), configured to accept the sectioned body through a side aperture.

[0045] In some embodiments, the apparatus further comprises a strand elongator positioned on top of the housing that functions to elongate the braiding hair strands.

[0046] To use the inventive sectioning tool, the braider may adjust the side lever to a selected size setting. The braider may then insert hair extensions into each section.

[0047] Referring to FIGS. **1** through **8**, a hair extension sectioning apparatus according to an embodiment of the present invention comprises a body **26** having a plurality of parallel, substantially rectangular, vertical protrusions **28** extending from a horizontal platform, forming slots therebetween. A guide panel or panels having measurements or depth markers **30** extends vertically from the horizontal platform, parallel to the vertical protrusions **28**, and is accessible from an exterior of the apparatus. The horizontal platform may have vertical 90° angle leg at each corner. The horizontal platform is mounted on a planar base **32**. An adjustable depth lever or slotted plate **20** has parallel slats **22** extending between two arms perpendicular to the slats **22**. Lever tabs **24** extend from the slotted plate **20** parallel to and offset from the arms. The slotted plate **20** is horizontally mounted around the vertical protrusions **28** and may be raised and lowered utilizing the tabs **24**. As shown in FIG. **1**, the slots body **26** and the depth lever **20** are housed within a housing or cover **18** having parallel sidewalls and a top panel, with the remaining sidewall regions being open. The levers **24** extend from the interior of the housing between the guide panel(s) and an angle leg. Depth markers **30** displayed on the body **26** guide panel enable the braider to consistently size sections of hair extensions.

[0048] The hair extension sectioning apparatus shown in FIG. **1** further comprises a strand elongator comprising a first horizontal plate **10** having first plate spikes **12** extending vertically therefrom and a second horizontal plate **14** having second plate spikes **16** extending vertically therefrom, positioned such that the first plate spikes **12** abut the second horizontal plate **14** and the second plate spikes **16** abut the first horizontal plate **10**, forming channels therebetween. The first plate spikes or bristles **12** and the second plate spikes or bristles **16** are configured to hold hair extensions in place while the hair extensions are stretched. The second horizontal plate **10** may rest on top of the housing **18**.

[0049] To use the apparatus, the braider distributes a bundle of hair extensions **34** between the depth lever slats **22** as shown in FIG. **5** and between the vertical protrusions **28** as shown in FIG. **7**. The section size may be adjusted by moving the depth lever **20** up or down, as shown in FIG. **8**.

[0050] It should be understood, of course, that the foregoing relates to exemplary embodiments of the invention and that modifications may be made without departing from the spirit and scope of the invention as set forth in the following claims.

What is claimed is:

1. A hair extension sectioning apparatus, comprising:

a unitary body having:

a horizontal platform;

a plurality of parallel vertical protrusions extending therefrom, forming a first plurality of slots therebetween; and

a guide panel extending vertically from the horizontal platform, adjacent to the parallel vertical protrusions;

a unitary slotted depth selection plate mounted to the body, the unitary slotted depth selection plate having:

two arms;

parallel slats extending between the two arms, forming a second plurality of slots therebetween, the second plurality of slots configured to accommodate the plurality of parallel vertical protrusions; and

lever tabs extending from a perimeter of the unitary slotted depth selection plate; and

a housing mounted on the unitary body, said housing having:

parallel sidewalls with a top panel extending therebetween;

wherein the lever tabs extend horizontally beyond the housing.

2. The hair extension sectioning apparatus of claim **1**, wherein the guide panel has depth markings corresponding to a plurality of positions of the unitary slotted depth selection plate.

3. The hair extension sectioning apparatus of claim **1**, wherein the horizontal platform comprises a vertical angle leg at each corner.

4. The hair extension sectioning apparatus of claim **1**, wherein the housing further comprises a planar base on which the horizontal platform is mounted.

5. The hair extension sectioning apparatus of claim **1**, wherein the unitary slotted depth selection plate is substantially planar.

6. The hair extension sectioning apparatus of claim **1**, further comprising a strand elongator, having:

a first horizontal plate with a first plurality of protrusions extending vertically therefrom; and

a second horizontal plate mounted on the first horizontal plate, the second horizontal plate having a second plurality of protrusions extending vertically therefrom; wherein the first plurality of protrusions abut the second horizontal plate and the second plurality of protrusions abut the first horizontal plate, forming channels therebetween.

7. The hair extension sectioning apparatus of claim **6**, wherein the strand elongator is positioned on the top panel.

8. A method of preparing hair extensions for braiding, comprising:

providing the hair extension sectioning apparatus of claim **1**;

removing the housing;

adjusting the unitary slotted depth selection plate to a predetermined position identified using the guide panel; and

distributing a bundle of hair extensions into the plurality of slots.

9. The method of claim **8**, further comprising stretching strands of the distributed bundle of hair extensions.

* * * * *