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[Continued on next page]

(54) Title: HAIRDRESSING TRAINING AID

(57) Abstract: A hairdressing training headform has features simulating a face and neck of a human. A flexible scalp with hair has a peripheral lip. A vertex is configured to simulate an upper portion of a human skull and has a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex. A releasable locking means remote from the vertex periphery biases the vertex toward the headform such that the peripheral lip of the scalp is sandwiched between the vertex periphery and the headform.

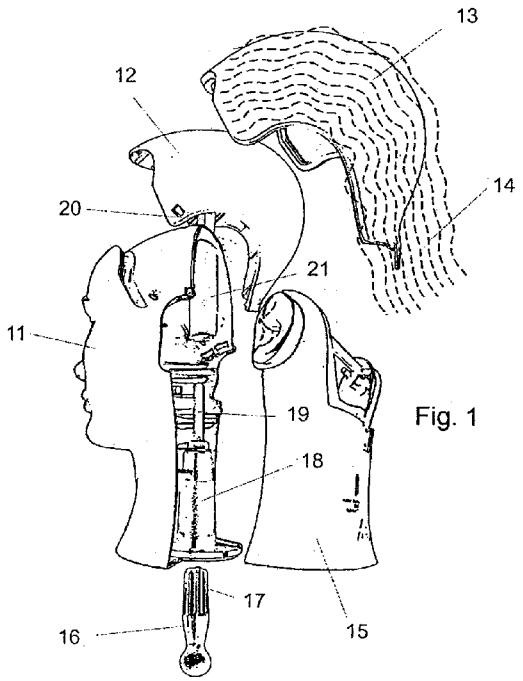


Fig. 1

WO 2012/033508 A1

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Hairdressing Training Aid

Background of the Invention

The present invention relates to a training aid for hairdressers. The invention more particularly, although not exclusively, relates to hairdressing training headform having a means of securely retaining and conveniently releasing an artificial scalp with hair for interchangeability.

It is known to secure a PVC scalp with hair to a hairdressing headform in which the vertex (being that portion of the headform immediately covered by the scalp) is a permanent fixture of the overall headform. The scalp must be attached securely to the vertex so that hairdressing trainees can pull on the hair and manipulate it without the scalp becoming detached from the vertex in use. The requirement for secure attachment of the PVC skin to the vertex is in conflict with a desire that the PVC scalp be easily removed when desired for exchange with another scalp perhaps having hair of a different type.

Objects of the Invention

It is an object of the present invention to overcome or substantially ameliorate at least one of the above disadvantage and/or more generally to provide an improved hairdressing training headform.

Disclosure of the Invention

There is disclosed herein a hairdressing training aid, comprising:

a headform having features simulating a face and neck of a human;

a flexible scalp with hair, the scalp having a peripheral lip;

a vertex configured to simulate an upper portion of a human skull and having a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex; and

releasable locking means remote from the vertex periphery and biasing the vertex toward the headform such that the peripheral lip of the scalp is sandwiched between the vertex periphery and the headform.

Preferably, the releasable locking means comprises a threaded shaft and a threaded rod engaging therewith, one of which extends from the headform and the other of which extends from the vertex, relative rotation between the threaded shaft and threaded rod causing relative movement of the vertex with respect to the headform.

Preferably, the hairdressing training aid further comprises a recess into which a key can be inserted for attachment of the headform to a stand.

Preferably, the threaded rod extends from the recess.

Preferably, the recess is rotatable with respect to the headform.

Alternatively, the releasable locking means can comprise a catch extending from the vertex and a latch located within the headform with which the catch engages.

Preferably, the latch is flexible to enable it to deform upon engagement with the catch as the vertex is attached to the headform and is mounted within the headform to slide away from the catch for release of the vertex.

A release pin can extend from the latch for access at the headform exterior to enable the above mentioned sliding movement.

As a further alternative, the releasable locking means can comprise a gear rack extending from the vertex and a ratchet bearing against the headform and with which the gear rack engages.

The hairdressing training aid can further comprise a guide tube within the headform and through which the gear rack extends en route to the ratchet.

Preferably, the ratchet is external of the headform.

Brief Description of the Drawings

Preferred forms of the present invention will now be described by way of example with reference to the accompanying drawings, wherein:

Fig. 1 is a schematic parts-exploded perspective illustration of a hairdressing training headform;

Fig. 2 is a schematic partial cross-sectional elevation of a portion of the headform of Fig. 1;

Fig. 3 is a schematic cross-sectional elevation of the headform;

Fig. 4 is a schematic parts-exploded perspective illustration of another hairdressing training headform;

Fig. 5 is a schematic partial cross-sectional elevation of a portion of the headform of Fig. 4;

Fig. 6 is a schematic cross-sectional elevation of the headform of Fig. 4;

Fig. 7 is a schematic parts-exploded perspective illustration of another hairdressing training headform;

Fig. 8 is a schematic cross-sectional elevation of a portion of the headform of Fig. 7; and

Fig. 9 is a schematic cross-sectional elevation of the headform of Fig. 7.

Description of the Preferred Embodiments

In Figs. 1 to 3 of the accompanying drawings there is depicted schematically a hairdressing training headform 10 comprising a front face portion 11 and a rear neck portion 15. These are secured to one another and a vertex 12 taking the general form of the crown of a human skull completes the overall shape of a human head. These parts would typically be made of ABS plastics material.

A flexible PVC scalp 13 with hair 14 can be fitted over the vertex 12. To this end, the scalp 13 has a peripheral bead 24 which fits under the periphery of the vertex 12 to maintain the scalp stretched taut thereupon.

Extending downwardly from the top of the vertex 12 through a tube 21 formed integrally with the face portion 11 is a hollow shaft 20 having internal thread.

At the base of the headform 10, there is provided a recess 18 into which a key 16 can be inserted. The

recess 18 rotates with respect to the headform 10 and is held in a rotatable manner by means of a circular lip 23. The key 16 has splines 17 engaging with the internal surface of the recess 18 which might also have corresponding internal splines.

Extending upwardly from the recess 18 is a threaded rod 19. The threaded rod 19 is received within the threaded shaft 20 with conventional clockwise threads such that upon clockwise rotation of the key 16 and recess 18, the threaded shaft 20 is drawn down so that its periphery presses down upon the bead 24 to sandwich the bead between the vertex 12 and the respective face and neck portions 11 and 15 to secure the scalp in place. Counterclockwise rotation of the key 16 will release the vertex 12 from being headform to enable replacement of the scalp and hair. Secure location of the bead 24 under the periphery of the vertex 12 ensures that trainee hairdressers can pull at the hair 14 without fear of the PVC scalp 13 becoming detached from the headform.

In the embodiment of Figs. 4 to 6 the means of securing the vertex 12 to a headform 100 is different. In this embodiment, a catch 20 extends downward from the top

portion of the vertex 12 and has a pawl 29 at its bottom extremity. Formed integrally with the face portion 11 of the headform is a channel 28 into which a sliding portion 27 of a latch 26 is received. At the upper extremity of the latch 26, there is another pawl 30 which snap-engages over the pawl 29. To this end, the material from which the latch 26 is made is elastically flexible so as to enable deflection of the pawl 30 over the pawl 29 as the vertex 12 is pressed down upon the headform. The pawls 29 and 30 are engaged quite tightly so that the periphery of the vertex 12 bears tightly down upon the lip 24 so that the trainee hairdressers can tug at the hair 14 without fear of the scalp 13 becoming detached during training.

A release pin 35 extends from the sliding portion 27 of the latch 26 and might be presented to the headform exterior via the ear. Manipulation of the release pin will effect lateral transfer of the latch 26 such that the pawl 30 will slide away from pawl 29 to enable release of the vertex 12.

A recess 18 is provided at the base of the headform 100. This can receive a key by which the headform can be

attached to a stand.

A further embodiment is depicted in Figs. 7 to 9. In this embodiment, the means of securing the vertex 12 to the headform 1000 is different again. A gear rack 20 - somewhat in the form of a cable tie strip - extends downwardly from a central portion of the vertex 12. The gear rack 20 has ratchet teeth 31 as depicted.

Internally at the base of the headform 11, there is provided a guide tube 32 through which the ratchet teeth 31 pass.

An anchor catch 33 is provided underneath the base of the headform 11 and has an internal pawl 34 which engages with the ratchet teeth 31. The anchor catch 33 is slipped over the tail end of the gear rack 20 as the gear rack is pulled down to draw down on the vertex 12. The pawl 34 locks in position over one of the ratchet teeth 31. This downward force on the gear rack 20 forces the periphery of the vertex 12 down upon the lip 24 of the scalp 13 to sandwich the lip between the vertex and facing portions of the headform. In order to release the vertex 12 to remove the scalp 13 and hair 14, the anchor

catch 33 can be squeezed to thereby lift the pawl 34 away from the ratchet teeth.

Again, a recess 18 is provided at the base of the headform 1000. This can receive a key by which the headform can be attached to a stand.

CLAIMS

1. A hairdressing training aid, comprising:

a headform having features simulating a face and a neck of a human;

a flexible scalp with hair, the scalp having a peripheral lip;

a vertex movable relative to said headform and configured to simulate an upper portion of a human skull, said vertex having a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex; and

a releasable locking mechanism adaptable to bias the vertex toward the headform such that when the locking mechanism is engaged the peripheral lip of the scalp is clamped between the vertex and the headform.

2. The hairdressing training aid of claim 1, further comprising a recess attached to the headform into which a key can be inserted for attachment of the headform to a stand.

3. The hairdressing training aid of claim 1, wherein the locking mechanism comprises a threaded shaft and a threaded rod engaging therewith, one of which extends from the headform and the other or which extends from the vertex.

4. The hairdressing training aid of claim 3, wherein relative rotation between the threaded shaft and threaded rod causes relative movement of the vertex with respect to the headform.

5. The hairdressing training aid of claim 4, further comprising a recess attached to the headform into which a key can be inserted for attachment of the headform to a stand.

6. The hairdressing training aid of claim 5, wherein the threaded rod extends from the recess.

7. The hairdressing training aid of claim 6, wherein the recess is rotatable with respect to the headform.

8. The hairdressing training aid of claim 1, wherein the locking mechanism comprises a catch extending from the vertex and a latch located within the headform with which the catch engages.

9. The hairdressing training aid of claim 8, wherein the latch is sufficiently flexible to enable it to engage the catch as the vertex is attached to the headform.

10. The hairdressing training aid of claim 8, wherein the latch is mounted within the headform to slide away from the catch for release of the vertex.

11. The hairdressing training aid of claim 10, further comprising a release pin extending from the latch for access from the headform exterior to enable said sliding movement.

12. The hairdressing training aid of claim 1, wherein the locking mechanism comprises a gear rack extending from the vertex and a ratchet engaged to the headform with which the gear rack engages.

13. The hairdressing training aid of claim 12, wherein the headform further comprises a guide tube into which the gear rack extends.

14. The hairdressing training aid of claim 13, wherein the ratchet is located external to the headform.

15. A hairdressing training aid, comprising:

a headform having features simulating a face and a neck of a human;

a flexible scalp with hair, the scalp having a peripheral lip;

a vertex movable relative to said headform and configured to simulate an upper portion of a human skull, said vertex having a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex;

a releasable locking mechanism adaptable to bias the vertex toward the headform such that when the locking mechanism is engaged the peripheral lip of the scalp is clamped between the vertex and the headform, the locking mechanism comprising a threaded shaft and a threaded rod engaging therewith, one of which extends from the headform and the other or which extends from the vertex.

16. The hairdressing training aid of claim 15, wherein relative rotation between the threaded shaft and threaded rod causes relative movement of the vertex with respect to the headform.

17. The hairdressing training aid of claim 16, further comprising a recess attached to the headform into which a key can be inserted for attachment of the headform to a stand.

18. The hairdressing training aid of claim 17, wherein the threaded rod extends from the recess.

19. The hairdressing training aid of claim 18, wherein the recess is rotatable with respect to the headform.

20. A hairdressing training aid, comprising:

a headform having features simulating a face and a neck of a human;

a flexible scalp with hair, the scalp having a peripheral lip;

a vertex movable relative to said headform and configured to simulate an upper portion of a human skull, said vertex having a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex;

a releasable locking mechanism adaptable to bias the vertex toward the headform such that when the locking mechanism is engaged the peripheral lip of the scalp is clamped between the vertex and the headform, the locking mechanism comprising a catch extending from the vertex and a latch located within the headform with which the catch engages.

21. The hairdressing training aid of claim 20, wherein the latch is sufficiently flexible to enable it to engage the catch as the vertex is attached to the headform.

22. The hairdressing training aid of claim 20, wherein the latch is mounted within the headform to slide away from the catch for release of the vertex.

23. The hairdressing training aid of claim 22, further comprising a release pin extending from the latch for access from the headform exterior to enable said sliding movement.

24. A hairdressing training aid, comprising:

a headform having features simulating a face and a neck of a human;

a flexible scalp with hair, the scalp having a peripheral lip;

a vertex movable relative to said headform and configured to simulate an upper portion of a human skull, said vertex having a periphery with which the peripheral lip of the scalp engages when the flexible scalp is placed over the vertex;

a releasable locking mechanism adaptable to bias the vertex toward the headform such that when the locking mechanism is engaged the peripheral lip of the scalp is clamped between the vertex and the headform, the locking mechanism comprising a gear rack extending from the vertex and a ratchet engaged to the headform with which the gear rack engages.

25. The hairdressing training aid of claim 24, wherein the headform further comprises a guide tube into which the gear rack extends.

26. The hairdressing training aid of claim 25, wherein the ratchet is located external to the headform.

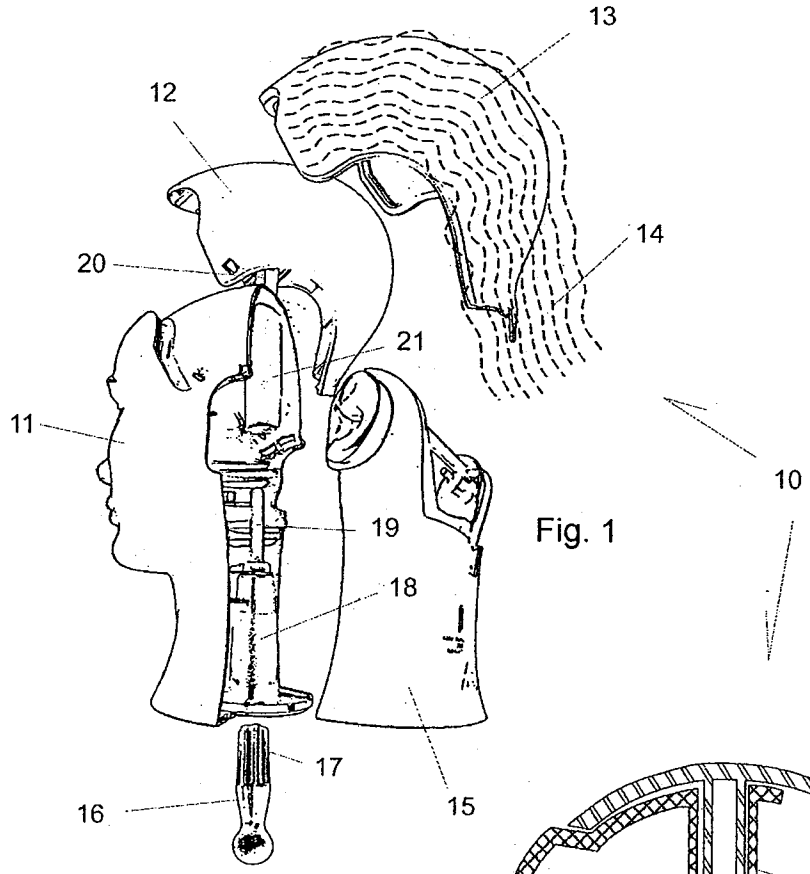


Fig. 1

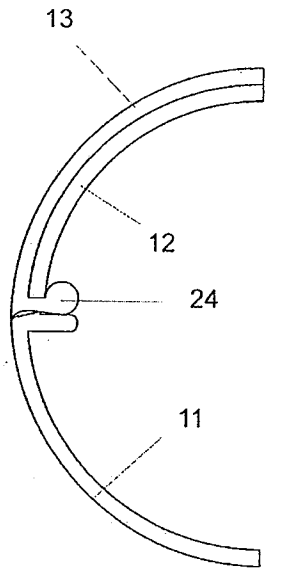


Fig. 2

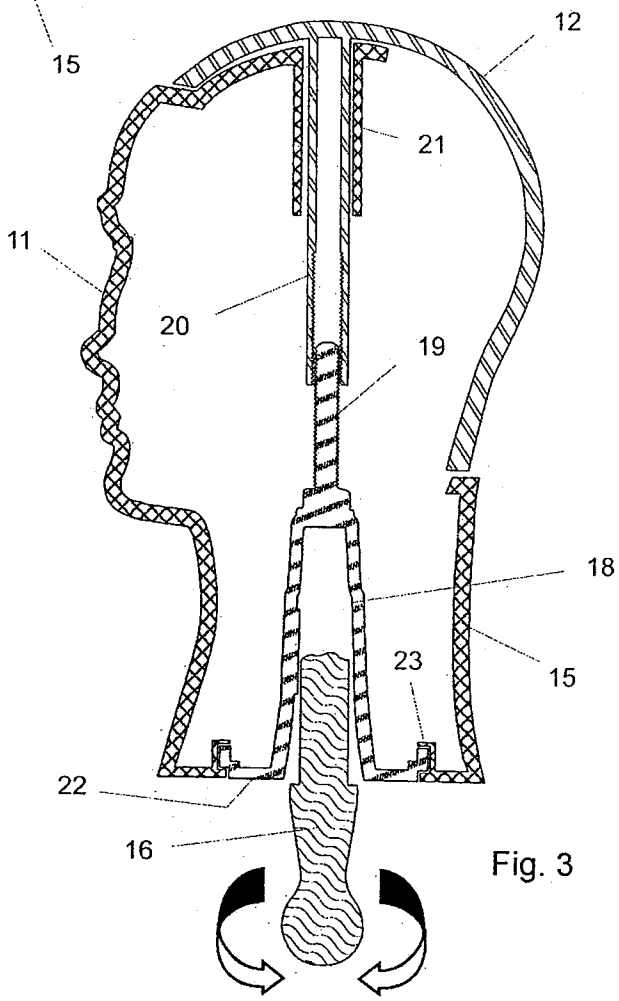


Fig. 3

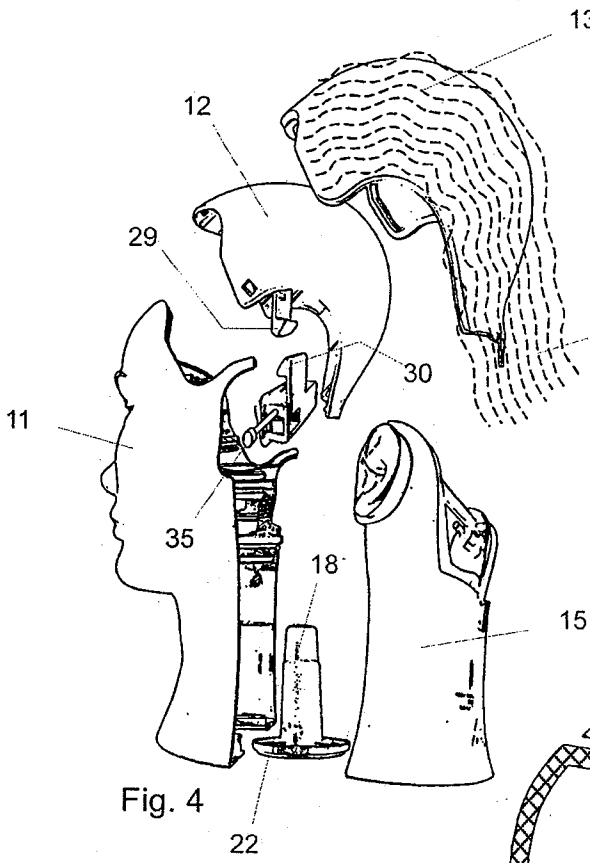


Fig. 4

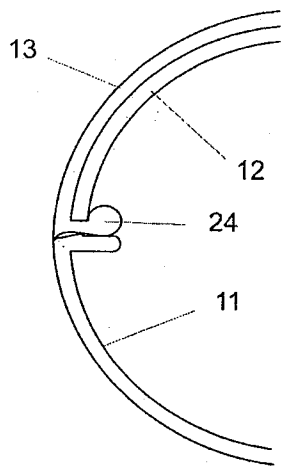


Fig. 5

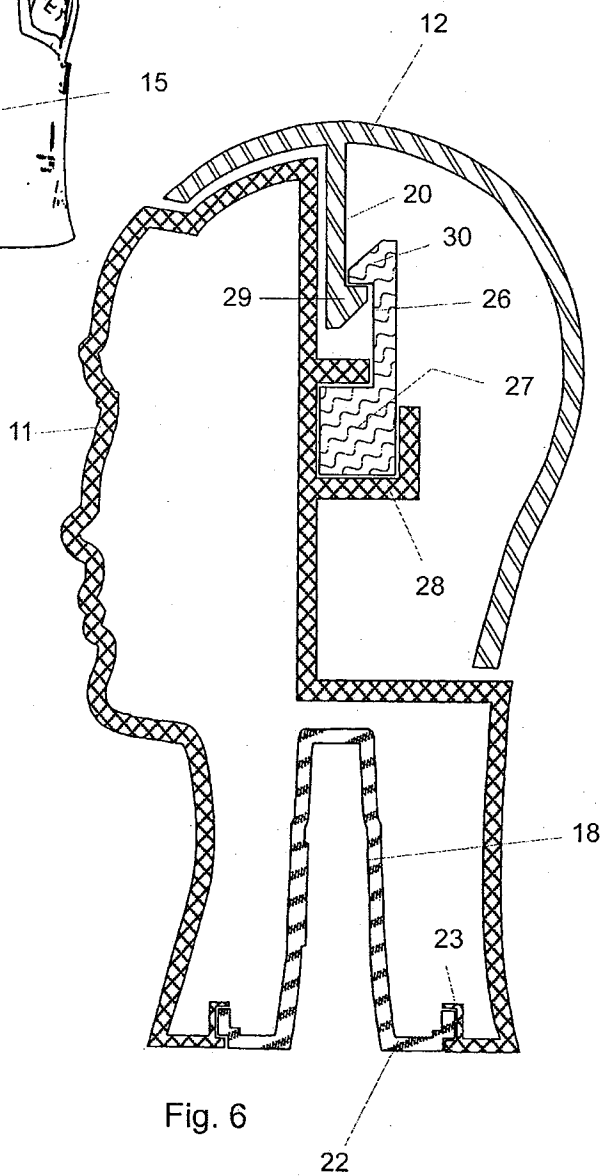


Fig. 6

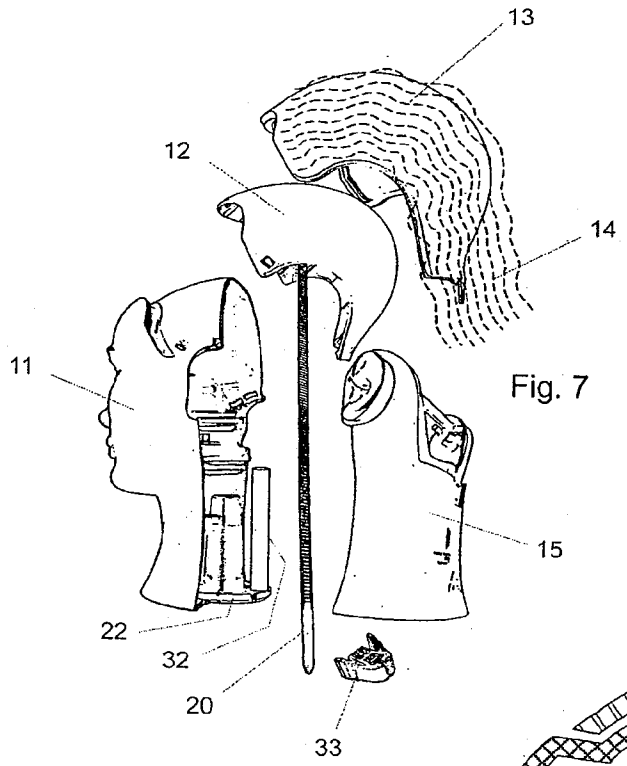


Fig. 7

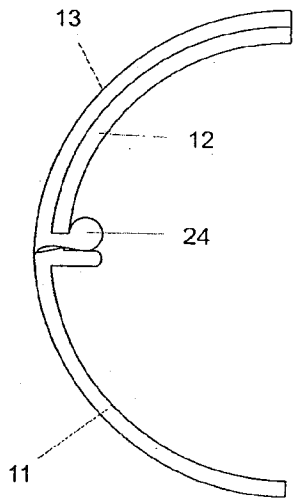


Fig. 8

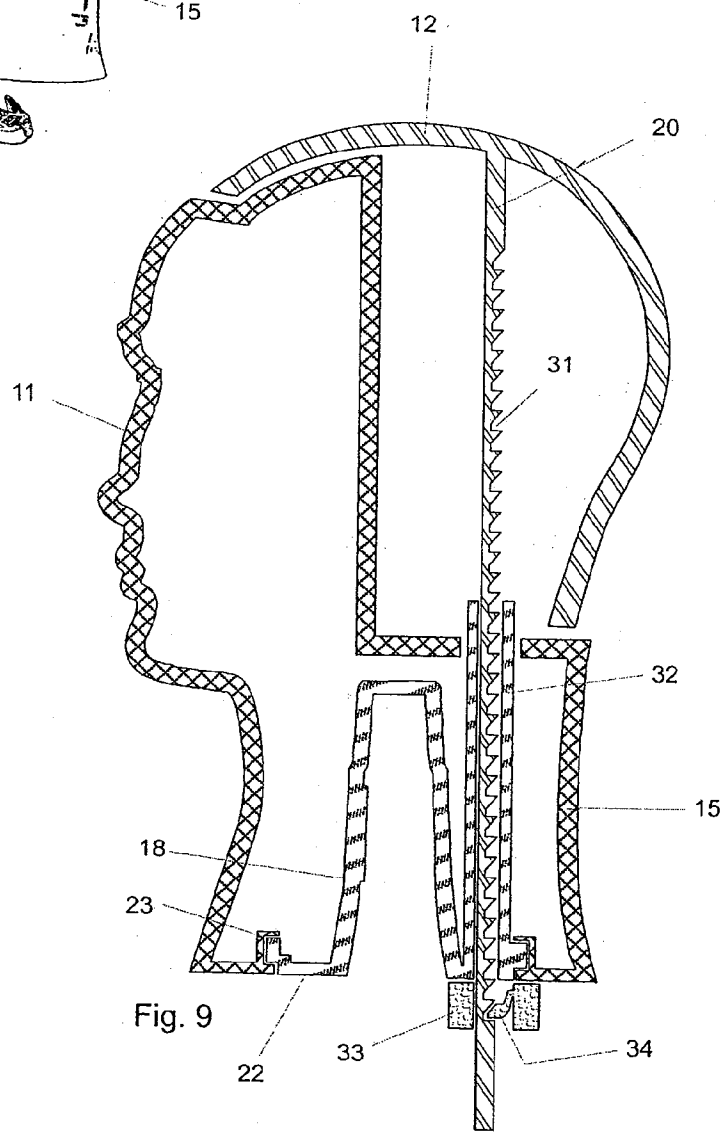


Fig. 9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/060934

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A63H 3/44 (2011.01)
USPC - 446/394
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) - A63H 3/44; G09B 19/10, 19/12 (2011.01)
USPC - 132/212; 434/94, 377, 394; 446/391, 394

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent, Scirus, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2007/0238388 A1 (MOREHEAD) 11 October 2007 (11.10.2007) entire document	1-26
Y	US 6,527,618 B1 (FAUNDA et al) 04 March 2003 (04.03.2003) entire document	1-26
Y	US 4,136,483 A (SHACKELFORD et al) 30 January 1979 (30.01.1979) entire document	2, 5-7, 12-14, 17-19, 24-26

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* Special categories of cited documents:
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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 February 2011	17 FEB 2011
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

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