



US 20030154994A1

(19) **United States**
(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0154994 A1**
Ra (43) **Pub. Date: Aug. 21, 2003**

(54) **HAIRPIECE FOR HAIR** (52) **U.S. Cl. 132/53**

(76) **Inventor: Steve Ra, Santa Fe Springs, CA (US)**

Correspondence Address:
PARK & SUTTON LLP
3255 WILSHIRE BLVD
SUITE 1110
LOS ANGELES, CA 90010 (US)

(21) **Appl. No.: 10/077,733**

(22) **Filed: Feb. 19, 2002**

Publication Classification

(51) **Int. Cl.⁷ A41G 3/00**

(57) **ABSTRACT**

A hairpiece with retaining clip includes a retaining clip having a top edge, a lower portion, a bottom edge, a width 'w1' and a height 'h1'. The lower portion is between the top edge and the bottom edge. The width 'w1' of the retaining clip is greater than the height 'h1'. A first hair extension is attached to the retaining clip. The first hair extension has a first upper rim with a width 'wr1' and a first set of hair strands each with a first upper end. The first upper rim is attached to the retaining clip at about the top edge.

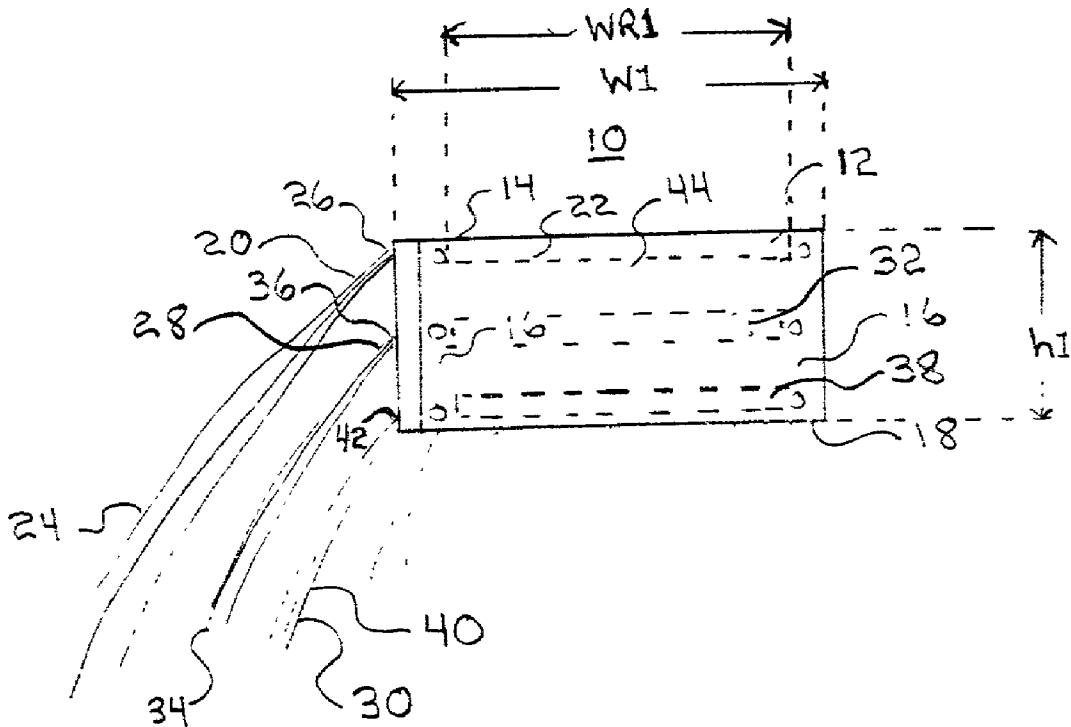


FIG. 1

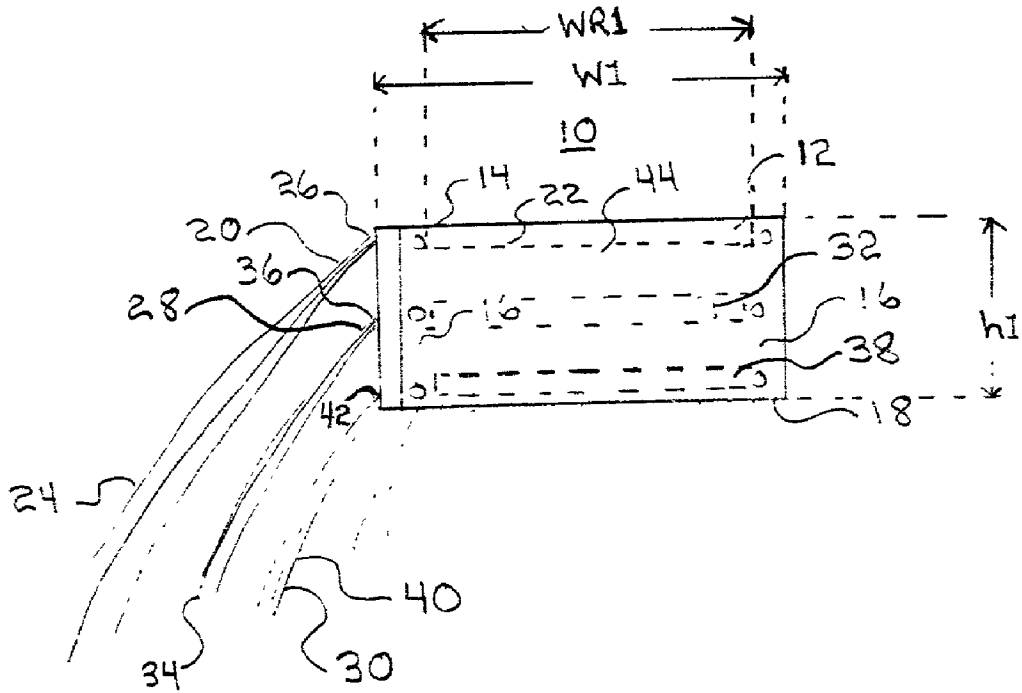


FIG. 2

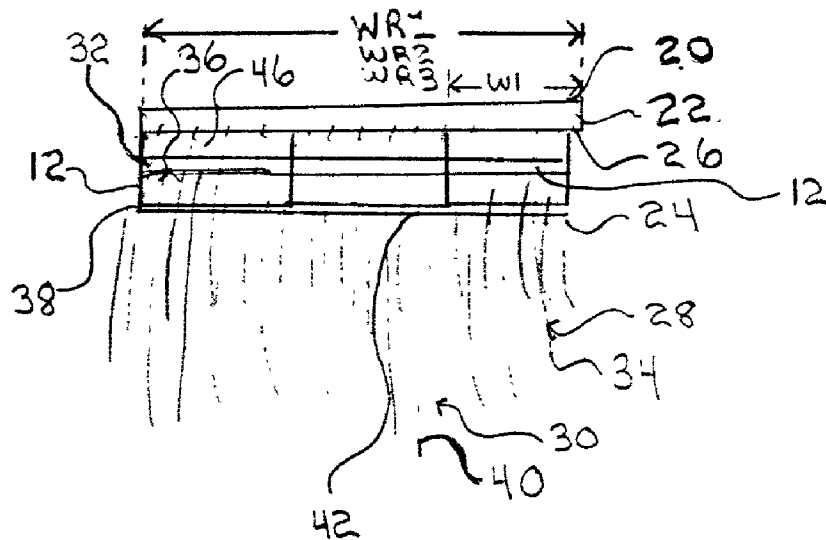


FIG. 3

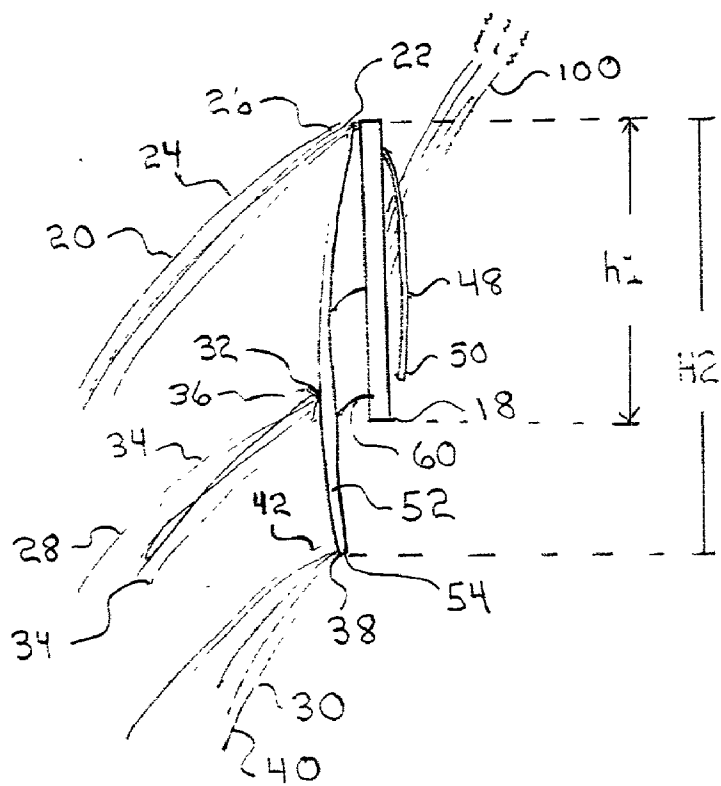


FIG. 4

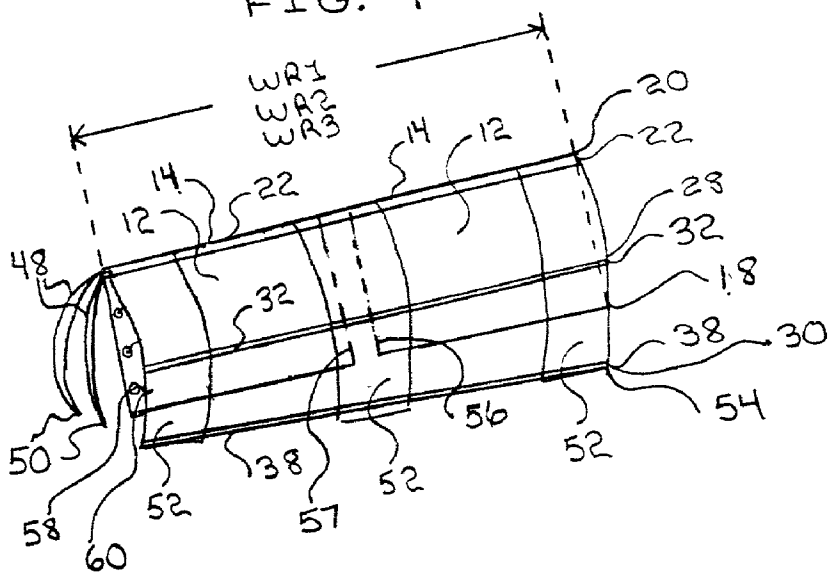
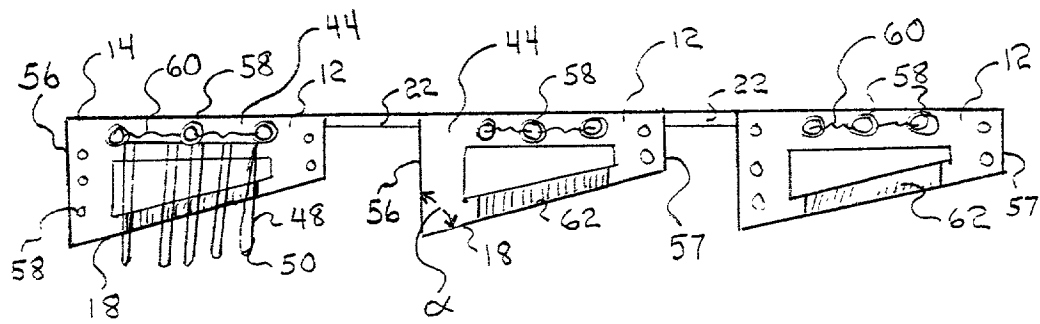


FIG. 5



HAIRPIECE FOR HAIR

BACKGROUND

[0001] The present invention relates to ways of attaching a hair extension to an individual's hair. More particularly the present invention relates to ways of easily attaching a hair extension.

[0002] Hair extensions are well known in the prior art. One way of attaching the hair extensions is to glue them onto the head hair of the person. The glue tends to deteriorate in water, so shampooing the hair in the shower is typically avoided. Instead of shampoo and water, chemicals are used to clean the hair when the glued hair extensions are in place. The cleaning chemicals can be harsh on the hair and may cause damage to the person's natural hair. It is much healthier for the hair to remove the hair extensions during showering, so that shampoo and conditioners can be applied to the hair rather than chemical cleaning treatments.

[0003] Alternative attachment devices are needed for hair extensions, rather than glue. The alternative attachment device should be resistant to water and shampoo, so the attachment device can be left in the wearer's hair during showering. Additionally, the attachment devices should be easily removable from the hair prior to showering. The person needs to have flexible choices that allow a brief shower with the hair extensions in place or quick removal of the hair extensions for showering and shampooing. Swimming and other water related activities are attainable when the attachment devices do not require glue, which is so prone to deteriorating in water and does not easily detach.

[0004] Since, chemical treatments tend to be very harsh on the hair, repeated treatment of the hair with the cleaning chemicals over long periods of time can potentially cause the hair to lose softness, texture and body. The purpose of hair extensions is to enhance the wearer's appearance and self-confidence. Deteriorating the natural hair during cleaning is counter-productive to the goal of improved individual appearance.

[0005] The glue holds the hair extension piece in position for about a month. After about a month the glue loses some of its adhesive qualities and the hair extensions are prone to falling off. The hair extensions must then be re-glued onto the person's hair. Significant time can be required to continuously re-glue the hair extensions back onto the wearer's hair. The glue may weaken and the hair extensions fall off at inappropriate times. Such unplanned detachments of the hair extensions can be very embarrassing for the wearer.

[0006] There can also be significant concerns regarding glue potentially damaging the person's hair. Glue contains ingredients that are not beneficial for the hair and may be detrimental to the growth and health of the hair. Repeated applications of the hair extensions onto the hair with glue can allow the ingredients within the glue to leach into the hair and damage the hair. Residue from the ingredients within the glue may even be absorbed into the scalp of the person, which is not desirable.

[0007] As previously mentioned, chemical cleaners are used on the wearer's hair since water cannot be used on the glued hair extensions. There is an even greater health concern associated with the chemical cleaners than just the potentially harmful effects on the hair during cleaning. Small

amounts of the chemical cleaners could be absorbed into the scalp by the pores of the skin, just as the ingredients in the glue may be absorbed by the scalp. If the chemical cleaners do become absorbed through the skin they could eventually migrate to the cells of the brain.

[0008] Many times in the past, products have been promoted that eventually were found to have harmful side effects. Since all the harmful effect may not be known at this time, the usage of chemical cleaners for the cleaning of hair could produce presently undisclosed side effects. Using an attachment device for hair extensions that does not require glue and the associated chemical cleaners may prevent undesirable health consequences. Additionally, products that minimize potentially harmful side effects often provide greater peace of mind for the user.

[0009] Furthermore, the manufacturing of chemicals is detrimental to the environment and affects the health of many people beyond the end user of the chemical cleaner. Eventually the chemical cleaner is flushed down the shower drain, where it travels to a water treatment plant. The drain water is treated and cleaned at the water treatment plant. Unfortunately, it is impossible to remove all the chemicals that we dump into our water system. Some of the chemicals eventually find their way into the ocean or ground water reservoirs, where the chemicals endanger the natural environment. All efforts should be employed to reduce the consumer demand for harsh chemicals that may be hazardous to the environment.

[0010] Easy attachment and detachment prompt the person to wear the hair extensions when they choose and remove the hair extensions when they wish. The traditional method of gluing the hair extension to the hair requires so much effort that the person tends to leave the hair extensions in the hair for long periods of time. The person may desire to remove the hair extensions while sleeping or during strenuous physical exercise. The time required to remove and reapply the hair extensions when glued to the hair does not justify the removal of the hair extensions for short periods of duration.

[0011] Flexibility in attaching and detaching hair extensions can contribute to a more diverse lifestyle. The personal freedom to choose when to wear hair extensions increases the self-confidence of the user. Hairstyle and length of hair, just like clothing and jewelry, accentuates the personal preferences of the user. Hair extensions that extend hair length, should be just as quickly changeable as are the person's clothes and other accessories.

[0012] Therefore, there is a need for a hair extension device that attaches to the hair without the use of glue. The device should be easily removable from the person's hair, when showering and shampooing the hair. Additionally, the device should be easily re-attachable to the person's hair after shampooing. Easy removal and attachment of the hair extensions is most beneficial for sleeping and vigorous physical activities. Furthermore, avoiding the use of glue and chemical cleaners can be beneficial to the hair, the person's health, and the environment.

SUMMARY

[0013] An objective of a hair extension piece with a retaining clip is the quick removal of the hair extension piece

from the person's hair. The advantage is that the hair can be cleaned by showering and shampooing. Glued hair extensions that require chemical cleaning can be replaced with the traditional shampoo and water cleaning.

[0014] Another objective of the hair extension piece with a retaining clip is easy attachment to the person's hair. Easy removal and attachment of the hair extensions is most beneficial for sleeping and vigorous physical activities. The hair extensions can be inserted and removed with much greater freedom, since the process is quick and easy. Glued hair extensions are time consuming to apply, thus they tend to be left in the hair for many days.

[0015] Another objective is reducing the overall usage of glue and chemical cleaners. A great advantage is the improved appearance of the person's natural hair, the benefit to the person's health, and the protection of the environment. The minimizing of the manufacture and consumption of chemical cleaners is an advantage for everyone.

[0016] Another objective is avoiding the use of glue, which does not allow the hairpiece to be easily reattached. The advantage is quick reattachment if the hairpiece inadvertently detaches from the hair. Glue is not normally available and requires some drying time.

[0017] A hairpiece with retaining clip includes a retaining clip having a top edge, a lower portion, a bottom edge, a width 'w1' and a height 'h1'. The lower portion is between the top edge and the bottom edge. The width 'w1' is greater than the height 'h1' of the retaining clip.

[0018] A first hair extension is attached to the retaining clip. The first hair extension has a first upper rim with a width 'wr1' and a first set of hair strands each with a first upper end. The first upper rim is attached to the retaining clip at about the top edge. The first upper ends are attached to the first upper rim by weaving the first upper ends into the fabric of the upper rim. The retaining clip removably attaches the hairpiece to the hair on a user's head. The hair extension is substantially flat and blends nicely with straight hair.

[0019] The retaining clip can substantially cover the first upper rim of the first hair extension such that 'wr1' of the first upper rim is less than the width 'w1' of the retaining clip.

[0020] Alternately, the width 'wr1' of the first upper rim is substantially greater than the width 'w1' of the retaining clip. A plurality of retaining clips can be used when the first upper rim is substantially wider than one retaining clip. The first upper rim is attached to each of the plurality of retaining clip at about the top edge. Each hairclip is directly adjacent to another hairclip and the top edges of the plurality of retaining clips substantially cover the first upper rim of the first hair extension.

[0021] A second hair extension and a third hair extension are added to the hairpiece to increase the fullness of the appearance of the hairstrands. The first, second and third hair extension overlap so the hairpiece is thicker. A fabric extender is added that allows the third hair extension to be attached to the extender below the bottom edge of the retaining clip.

[0022] Although the present invention is briefly summarized, a fuller understanding of the invention can be obtained from the following drawings, detailed description and appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] These and other features, aspects and advantages of the present invention will become better understood with reference to the accompanying drawings, wherein:

[0024] **FIG. 1** is a front interior view of a single retaining clip with three hair extensions.

[0025] **FIG. 2** is a back exterior view of two retaining clips with three hair extensions.

[0026] **FIG. 3** is a side view of a single retaining clip with an extender and three hair extensions.

[0027] **FIG. 4** is a back exterior perspective view of two retaining clips with three extenders.

[0028] **FIG. 5** is a front interior view of three retaining clips attached to a wide upper rim for a first hair extension.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0029] Referring to **FIGS. 1 and 2**, an embodiment of the hairpiece with retaining clip **10** includes a retaining clip **12** having a top edge **14**, a lower portion **16**, a bottom edge **18**, a width 'w1' and a height 'h1'. The lower portion **16** is between the top edge **14** and the bottom edge **18**. The width 'w1' of the retaining clip **12** is greater than the height 'h1'.

[0030] A first hair extension **20** is attached to the retaining clip **12**. The first hair extension **20** has a first upper rim **22** with a width 'wr1' and a first set of hair strands **24** each with a first upper end **26**. The first upper rim **22** is attached to the retaining clip **12** at about the top edge **14**. The first upper ends **26** are attached to the first upper rim **22** by weaving the first upper ends **26** into the fabric of the first upper rim **22**.

[0031] Referring particularly to **FIG. 2**, along with **FIG. 1**, a second hair extension **28** and a third hair extension **30** are added for greater bulk and thickness. Similar to the first hair extension **20**, the second hair extension **28** has a second upper rim **32** with a width 'wr2' and a second set of hair strands **34** each with a second upper end **36**. The second upper ends **36** are attached to the second upper rim **32**.

[0032] The third upper rim **38** of the third hair extension **30** is attached to the retaining clip **12** at about the bottom edge **18**. The third upper rim **38** with a width 'wr3' and a third set of a plurality of hair strands **40** each with a third upper end **42**. The third upper ends **42** are attached to the third upper rim **38**. Two retaining clips **12** are shown in **FIG. 2**.

[0033] The retaining clip **12** removably attaches the hairpiece **10** to the hair on a user's head. The hair extensions **20**, **28**, **30** are substantially flat and blend nicely with straight hair. The second hair extension **28** is attached to the retaining clip **12** at about the lower portion **16** and the third hair extension **30** is attached to the retaining clip **12** at about the bottom edge **18**, with the retaining clip **12** substantially covering the second upper rim **32** and third upper rim **38**.

[0034] The second upper rim **32** of the second hair extension **28** is attached to the retaining clip **12** at about the lower portion **16**, just slightly below where the first hair extension **20** is attached. The third hair extension **30** is attached to the retaining clip **12** at about the bottom edge **18**, just slightly below where the second hair extension **28** is attached. The

first, second and third hair extensions **20**, **28**, **30** substantially overlap, so the hairpiece provides the impression of relatively long, thick and full hair. **FIG. 1** is shown without prongs **48**, which are illustrated in detail in **FIG. 5**.

[0035] Referring to **FIG. 1**, the retaining clip **12** can substantially cover the first upper rim **22** of the first hair extension **20** such that 'w1' of the first upper rim **22** is less than the width 'w1' of the retaining clip **12**. A single retaining clip **12** is attached along the upper rims **22**, **32**, **38** of the first, second and third hair extensions. The retaining clip **12** substantially covers the first, second, and third upper rims **22**, **32**, **38** of the hair extensions. The interior surface **44** is on the opposite side of the hair extensions **20**, **28**, **30**. The first hair extension **20** is attached to the exterior surface **46** of the retaining clip **12** at about the top edge **14**.

[0036] Alternately as shown in **FIG. 2**, the width 'w1' of the first upper rim **22** is substantially greater than the width 'w2' of the retaining clip **12**. A plurality of retaining clips **12** can be used when the first upper rim **22** is substantially wider than one retaining clip **12**. Two retaining clips **12** are shown. The first upper rim **22** is attached to each of the plurality of retaining clips **12** at about the top edge **14**. Each retaining clip **12** is directly adjacent to the other retaining clip **12** and the top edges **14** of the two retaining clips **12** substantially cover the first upper rim **22** of the first hair extension **20**.

[0037] Referring particularly to **FIGS. 3 and 4**, an extender **52** is attached to the retaining clip **12**. The extender **52** provides a sewable fabric that accepts the attachment of the hair extensions **20**, **28**, **30**. The first hair extension **20** has the first upper rim **22** and a first set of a plurality of hair strands **24** each with a first upper end **26**. The first upper ends **26** are attached to the first upper rim **22**. The first upper rim **22** is attached to the extender **52**, with the extender **52** attached to the retaining clip **12**. Each retaining clip **12** has prongs **48** with a free end **50**. In **FIG. 4** the prongs **48** are shown opened, ready to accept the user's hair **100**. (For clarity, the hair strands **24**, **34**, **40** are not shown in **FIG. 4**.)

[0038] The second hair extension **28** and the third hair extension **30** are attached to the extender **52** to increase the fullness of the appearance of the hair strands **24**, **34**, **40**. The first, second and third hair extension **20**, **28**, **30** overlap so the hairpiece is thicker. The addition of the fabric extender **52** allows the third hair extension **30** to be attached to the extender **52** below the bottom edge **18** of the retaining clip **12**. The extender **52** has a height 'H2' and a lower edge **54**. 'H2' of the extender **52** is greater than 'h1' of the retaining clip **12** such that the extender **52** travels from about the top edge **14** of the retaining clip **12** to beyond the bottom edge **18**.

[0039] The second hair extension **28** has the second upper rim **32** with a width 'w2' and a second set of a plurality of hair strands **34** each with a second upper end **36**. The second upper ends **36** are attached to the second upper rim **32**, with the second upper rim **32** attached to the extender **52**. The third upper rim **38** of the third hair extension **30** is also attached to the extender **52** at about the lower edge **54** of the extender **52**. The third hair extension **30** has a third upper rim **38** with a width 'w3'.

[0040] Referring to **FIG. 4**, a plurality of extenders **52** are used to connect two or more retaining clips **12** together. The extender **52** located between the two retaining clips **12** is

attached to the left side **56** of one retaining clip **12** and also attached to the right side **57** of the adjacent retaining clip **12**. The extenders **52** located on the outside edges of the hairpiece are each attached to just a different single retaining clip **12**.

[0041] Apertures **58** are located near the sides of the retaining clips **12**. Threads **60** wind through the apertures **58** to attach each extender **52** to the retaining clips **12**. Threads **60** are preferable to glue, so occasional wetting of the hair **100** with water does not effect the attachment of the hair extensions **20**, **28**, **30** to the retaining clip **12**. Glue could be deteriorated by contact with water or perspiration. Conversely, the threads **60** tend to dry without affecting the stability of the attachment.

[0042] Two retaining clips **12** are situated directly adjacent to each other, with the two top edges **14** connected to the upper rim of the first hair extension **20**. Together, the two retaining clips **12** substantially cover the first upper rim **22** of the first hair extension **20**, the second upper rim **32** of the second hair extension **28**, and the third upper rim **38** of the third hair extension **30**.

[0043] Referring to **FIG. 5**, which shows an interior surface **44** view of the retaining clip **12**. Three retaining clips **12** are attached along the upper rim of the first hair extension **20**. The retaining clips **12** are substantially a rectangular shape, with the exception that the bottom edge **18** angles slightly toward the top edge **14**. Each retaining clip **12** has a left side **56** and a right side **57**. The left side **56** and the bottom edge **18** form an angle ' α ' that is less than about 80 degrees, so the bottom edge **18** of the retaining clip **12** angles slightly toward the top edge **14**.

[0044] Each retaining clip **12** has three apertures **58** along the top edge **14**. Threads **60** insert through the three apertures **58** to attach each retaining clip **12** to the first hair extension **20**. The three apertures **58** have smooth grommets, which minimize inadvertent severing of the threads **60**. An extender **52** is not used in this version.

[0045] A plurality of prongs **48** are attached to the interior surface **44** of the retaining clip **12** at about the top edge **14**. (For clarity, the prongs **48** are shown on only the far left retaining clip **12**) Each prong **48** has a free end **50**. The plurality of prongs **48** rest on a rubber pad **62**. The rubber pad **62** wraps around the retaining clip **12** at about the bottom edge **18**.

[0046] When the hairpiece is used, the hair **100** will slide between the free end **50** of each prong and the rubber pad **62**. The rubber pad **62** creates a smooth surface for the hair to rest upon, which minimizes tearing and splitting of the hairs. The first hair extension **20** (not shown) attaches on the opposite side to the exterior surface **46** of each retaining clip **12** at about the top edge **14**.

[0047] The hairpiece with retaining clip **10** provides an effective way to attach hair extensions **20**, **28**, **30** to a user's hair **100**. The retaining clip **12** allows the hairpiece **10** to be quickly removed for showering, sports or other strenuous activities. The hairpiece **10** is easily reattached when desired. Furthermore, the hairpiece **10** is resistant to deterioration from water or perspiration.

[0048] Although the present invention has been described in considerable detail with regard to the preferred versions

thereof, other versions are possible. Therefore, the appended claims should not be limited to the descriptions of the preferred versions contained herein.

What is claimed is:

1. A hairpiece for hair comprising:

- a) a retaining clip having a top edge, a lower portion, a bottom edge, a width 'w1' and a height 'h1', wherein the lower portion is between the top edge and the bottom edge, and wherein the retaining clip having the width 'w1' greater than the height 'h1'; and
- b) a first hair extension having a first upper rim with a width 'wr1' and a first set of hair strands each with a first upper end, wherein the first upper rim is attached to the retaining clip at about the top edge, and wherein the first upper ends are attached to the first upper rim;

whereby the retaining clip removably attaches the hairpiece to the hair.

2. The hairpiece of claim 1, wherein the retaining clip substantially covers the first upper rim of the first hair extension.

3. The hairpiece of claim 2, wherein the retaining clip having a left side and a right side, wherein the left side and the bottom edge form an angle ' α ', wherein ' α ' is less than about 80 degrees, such that the bottom edge of the retaining clip angles slightly toward the top edge.

4. The hairpiece of claim 1, wherein the width 'wr1' of the first upper rim is substantially greater than the width 'w1' of the retaining clip.

5. The hairpiece of claim 4, having a plurality of retaining clips, wherein the first upper rim is attached to each of the plurality of retaining clips at about the top edge.

6. The hairpiece of claim 5, wherein each hairclip is directly adjacent to another hairclip, wherein the top edges of the plurality of retaining clips substantially cover the first upper rim of the first hair extension.

7. A hairpiece for hair comprising:

- a) a retaining clip having a top edge, a lower portion, a bottom edge, a width 'w1' and a height 'h1', wherein the lower portion is between the top edge and the bottom edge, and wherein the retaining clip having the width 'w1' greater than the height 'h1';
- b) a first hair extension having a first upper rim with a width 'wr1' and a first set of a plurality of hair strands each with a first upper end, wherein the first upper rim is attached to the retaining clip at about the top edge, wherein the first upper ends are attached to the first upper rim; and
- c) a second hair extension having a second upper rim with a width 'wr2' and a second set of a plurality of hair strands each with a second upper end, wherein the second upper rim is attached to the retaining clip at about the lower portion, and wherein the second upper ends are attached to the second upper rim;

whereby the retaining clip removably attaches the hairpiece to the hair.

8. The hairpiece of claim 7, wherein the first hair extension and the second hair extension substantially overlap.

9. The hairpiece of claim 8, wherein the retaining clip substantially covers the first upper rim and the second upper rim.

10. The hairpiece of claim 9 further having a third hair extension, wherein the third hair extension is attached to the retaining clip at about the lower edge, and wherein the retaining clip substantially covers the third upper rim.

11. The hairpiece of claim 7, wherein the width 'wr1' of the first upper rim is substantially greater than the width 'w1' of the retaining clip, and wherein the width 'wr2' of the second upper rim is substantially greater than the width 'w1' of the retaining clip.

12. The hairpiece of claim 11, having a plurality of retaining clips, wherein the first upper rim is attached to each of the plurality of retaining clips at about the top edge, and wherein the second upper rim is attached to each of the plurality of retaining clips at about the lower portion.

13. The hairpiece of claim 12, wherein the each hairclip is directly adjacent to another hairclip, wherein the top edges of the plurality of retaining clips substantially cover the first upper rim of the first hair extension and the lower portions of the plurality of retaining clips substantially cover the second upper rim of the second hair extension.

14. A hairpiece for hair comprising:

- a) a retaining clip having a top edge, a lower portion, a bottom edge, a width 'w1' and a height 'h1', wherein the lower portion is between the top edge and the bottom edge;
- b) an extender attached to the retaining clip;
- c) a first hair extension having a first upper rim with a width 'wr1' and a first set of a plurality of hair strands each with a first upper end, wherein the first upper rim is attached to the extender, and wherein the first upper ends are attached to the first upper rim; and
- d) a second hair extension having a second upper rim with a width 'wr2' and a second set of a plurality of hair strands each with a second upper end, wherein the second upper rim is attached to the extender, and wherein the second upper ends are attached to the second upper rim;

whereby the retaining clip removably attaches the hairpiece to the hair.

15. The hairpiece of claim 14 further comprising a third hair extension having a third upper rim and a third set of a plurality of hair strands each with a third upper end, wherein the third upper rim is attached to the extender, wherein the third upper ends are attached to the third upper rim; and wherein the extender having a height 'H2' and a lower edge, wherein 'H2' is greater than 'h1' of the retaining clip such that the extender travels from about the top edge of the retaining clip to beyond the bottom edge, and wherein the third hair extension is attached to the extender at about the lower edge.

16. The hairpiece of claim 15, wherein the retaining clip substantially covers the first upper rim and second upper rim.

17. The hairpiece of claim 14, having a plurality of retaining clips wherein the width 'wr1' of the first upper rim is substantially greater than the width 'w1' of each retaining clip, wherein the width 'wr2' of the second upper rim is substantially greater than the width 'w1' of each retaining clip, wherein the first upper rim is attached to the extender at about the top edge of each of the plurality of retaining clips.

18. The hairpiece of claim 17, wherein each retaining clip having a left side and a right side, wherein the left side and the bottom edge form an angle ' α ', wherein ' α ' is less than about 80 degrees, such that the bottom edge of the retaining clip angles toward the top edge.

19. The hairpiece of claim 18, having a plurality of extenders, wherein at least one extender is attached to the

left side of a retaining clip and also attached to the right side of an adjacent retaining clip.

20. The hairpiece of claim 19, wherein each retaining clip having a plurality of flexible prongs with a free end, wherein the free end can accept the hair.

* * * * *