Jan. 24, 1961 M. H. TODFIELD 2,969,070

ELASTIC HAIR TUFT RETAINER COMBINATION

Filed July 7, 1958 2 Sheets-Sheet 1

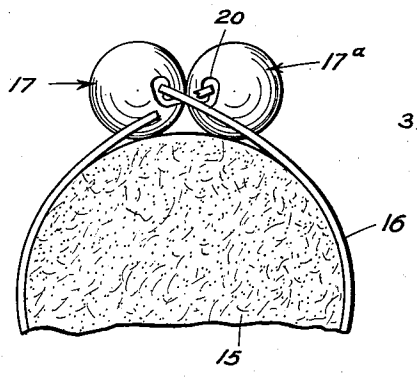


Fig. 1

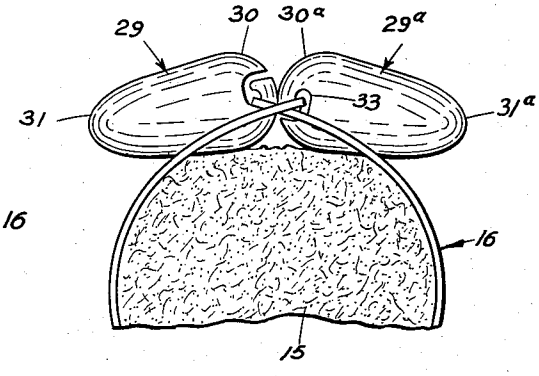


Fig. 7

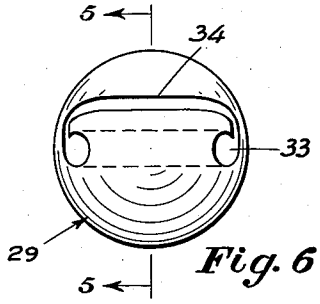


Fig. 6

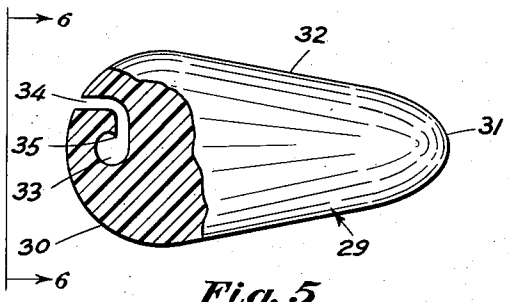


Fig. 5

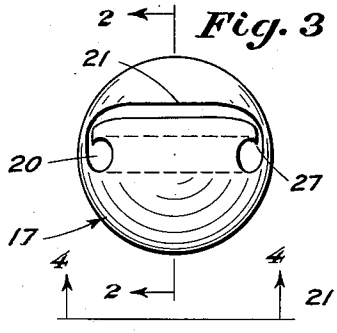


Fig. 3

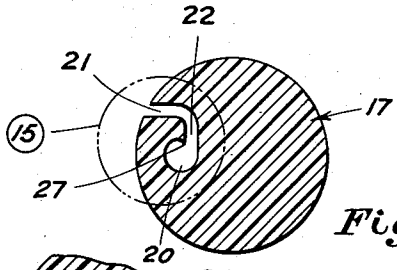


Fig. 2

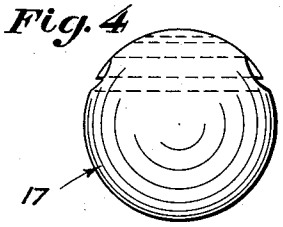


Fig. 4

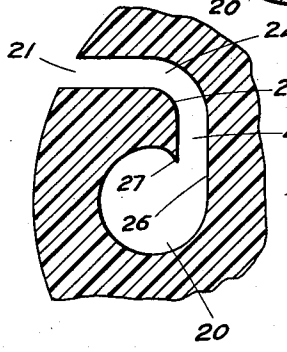


Fig. 15

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ELASTIC HAIR TUFT RETAINER COMBINATION

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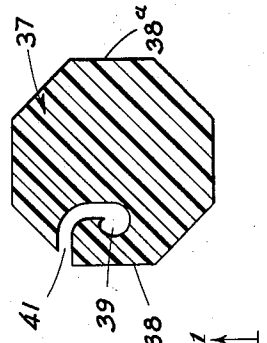


Fig. 9

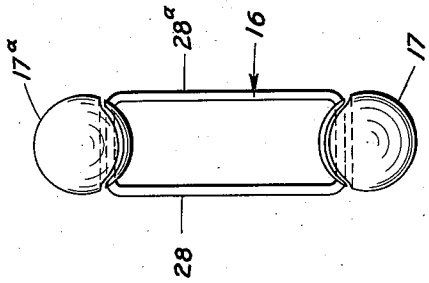


Fig 8

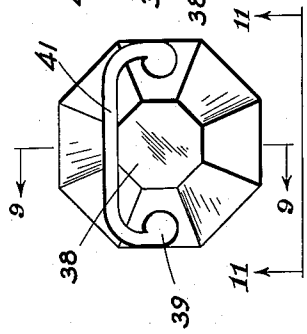


Fig. 10

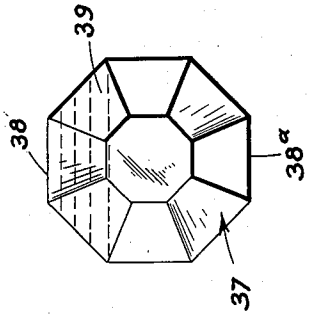


Fig. 11

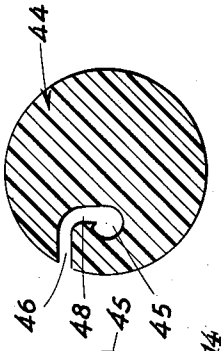


Fig. 12

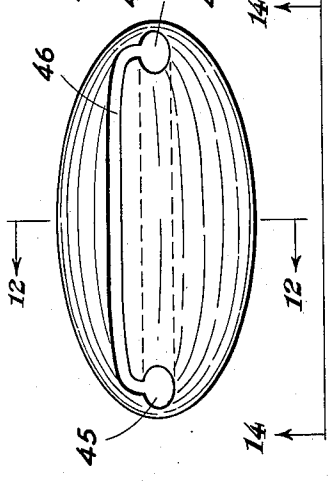


Fig. 13

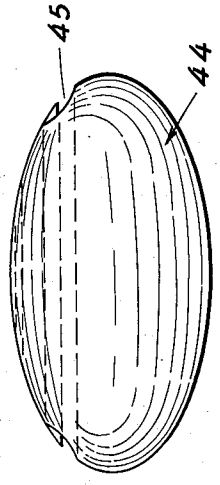


Fig. 14

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United States Patent Office 2,969,070 Patented Jan. 24, 1961

2,969,070

ELASTIC HAIR TUFT RETAINER COMBINATION

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Filed July 7, 1958, Ser. No. 746,992

6 Claims. (Cl. 132—46)

This invention relates to hair retainers or grips, and is particularly directed to a flexible clamping device, which is utilized to grip a tuft of hair, which is known as a "pony tail," or any other type of hair tuft, which projects beyond the scalp of the wearer.

The device is utilized, among other purposes, as a means for gripping a relatively large tuft of hair, projecting outward from the scalp of the wearer, which is popularly known as a "pony tail," although it may be utilized with any other type of hair tuft, such as a braid, or similar hair formation.

Where the end of a "pony tail," or other tuft, of hair, is inserted through an elastic band, which is usually in the form of an elongated continuous loop, the elastic band, when it is longer than the perimeter of the tuft of hair is usually progressively formed into a double, or multiple loop, until the required circumferential size to properly grip the tuft of hair is obtained.

A primary feature of applicant's construction is that it provides a convenient means for gripping the ends of an elastic band, and for holding the elastic band in place relative to the hair tuft, in which the assembled combination hair gripping device may be utilized with equal facility, whether the elastic band is wrapped once around the hair tuft or more than once.

It also provides means for ready removal of the elastic band from the tuft of hair, without destroying, or otherwise damaging the elastic band, the gripping holders which are removably attached to the ends of the elastic band, being readily available for continued and repeated use over a sustained period.

After wrapping the elastic band around the tuft of hair, portions of the elastic band located near the ends thereof are overlapped, and mutually interlocked in such a manner that the combination cannot be removed accidently and must be removed by positive action on the part of the wearer.

The device is relatively simple to apply to, or remove from the tuft of hair, and can readily be applied to or removed from the tuft of hair.

Another feature of the holder construction is that the slot through the holder, through which the elastic band is initially inserted, is located in such a position relative to the holder, that when the combination is applied to the tuft of hair, the elastic band is drawn away from the slot, thus accentuating the gripping characteristics of the holder against the end of the elastic band, and retaining the initial tension of the elastic band as applied to a tuft of hair.

Another feature of the device is that the opening through each of the holders, in which one end of the elastic band is held, while in use, is separated from the slot in such a manner as to prevent accidental removal of the elastic band.

Another feature of the construction is that the actual form and outer contour of the holder can be varied to suit the taste of the wearer. The gripping means for retaining the end of the elastic band remaining substantially the same, regardless of the cross-section or other contour of the holder.

In addition to the wide range in form, size and outer contour of the holder, the material of which it is made can be varied, as well as the exterior and surface decoration thereof, in order to further accentuate the decorative features of the device, the slots enabling the conventional type of elastic band to be replaced by colored elastic bands, made of fabric or other material interwoven with strands of an elastic material such as rubber and the like.

A major feature of the combination is that it is simple, compact, can be produced of a wide range of materials at relatively low cost, and utilized over sustained periods, even though the elastic bands, which are relatively inexpensive and readily available, are replaced at infrequent intervals.

The accompanying drawings, illustrative of one embodiment of the invention, and several modifications thereof, together with the description of their construction and the method of mounting, gripping, insertion and utilization thereof, will serve to clarify further objects and advantages of my invention.

In the drawings:

Figure 1 is an enlarged front elevational view of the combination flexible hair retainer, showing the elastic band and the holders attached to both ends of the elastic band in the gripping position.

Figure 2 is an enlarged section through one of the substantially spherical elastic band holders shown in Figure 1, showing the slot through which a portion of the elastic band is inserted into the opening through the holder, in the position shown in Figure 1, the section being taken on the line 2—2, Figure 3.

Figure 3 is an enlarged left-hand side elevational view of the spherical holder shown in Figures 1 and 2.

Figure 4 is an enlarged bottom plan view of the elastic band holder shown in Figures 2 and 3 the view being taken on the line 4—4, Figure 3.

Figure 5 is an enlarged partial section and partial front elevational view of a modification of the elastic band holder shown in Figures 1 and 2, the section portion being taken on the line 5—5, Figure 6.

Figure 6 is an enlarged left-hand side elevational view, similar to Figure 3, of the modified holder shown in Figure 5, the view being taken on the line 6—6, Figure 5.

Figure 7 is an enlarged front elevational view, similar to Figure 1, of the flexible retainer, wrapped around a tuft of hair, such as a "pony tail," the elastic band being substantially the same as that shown in Figure 1.

Figure 8 is an enlarged plan view of the assembled combination elastic band and holders shown in Figures 1, 2 and 3, with the elastic band shown in the free position, with the holders attached to the ends of the elastic band.

Figure 9 is an enlarged cross-section, similar to Figure 3, through a modification of the holder shown in Figure 2, in which the cross-section of the holder is of regular octagonal contour, the section being taken on the line 9—9, Figure 10.

Figure 10 is an enlarged left-hand side elevational view, similar to Figure 3, of the modified holder of regular polygonal cross-section, shown in Figure 9.

Figure 11 is an enlarged bottom plan view, similar to that shown in Figure 4, of the modified holder of regular polygonal cross-section, shown in Figures 9 and 10, the view being taken on the line 11—11, Figure 10.

Figure 12 is an enlarged cross-section, similar to Figure 2, through another modification of the holder as shown in Figures 13 and 14, which is of oval cross-section.

Figure 13 is an enlarged left-hand side elevational view,

similar to Figure 3, of the modified oval holder shown in Figures 12 and 14.

Figure 14 is an enlarged bottom plan view, similar to Figure 4, of the modified elastic band holder shown in Figures 12 and 13, the view being taken on the line 14—14, Figure 13.

Figure 15 is an expanded section through a portion of the spherical holder shown in Figures 2 and 3, showing the opening through the holder, the section being taken in the area designated as 15, in Figure 2.

In the drawings, the same reference numerals designate the same parts throughout the various views, except where otherwise indicated.

One embodiment of the construction shown in Figures 1, 2 and 3, which is fitted to a tuft of hair or "pony tail" 15, of substantially circular cross-section, comprises a continuous elastic band 16, having substantially U-shaped ends, the elastic band being made of rubber, or a similar highly elastic material, the arcuate ends of which are attached to substantially spherical holders 17, 17*a*, such as those shown in Figures 2 and 3. In the free position, the ends of the elastic band are fitted to the openings through the two holders 17, 17*a* attached thereto, the elastic band with the holders 17, 17*a* attached to the ends thereof, being wrapped around the tuft of hair or "pony tail," after which the end of elastic band to which one holder 17 is attached, is stretched over the outer circumference of the opposite holder, so that the relative positions of the two holders 17, 17*a* shown in Figure 1, are reversed from those shown in Figure 8, the sides of the end portions of the elastic band located adjacent the spherical holders, overlapping one another.

In wrapping the elastic band around the tuft of hair 15, the elastic band is stretched to some extent, thereby gripping the hair.

The holder 17 which is made of a plastic material of substantially spherical contour, is shown in Figures 2 and 3.

The spherical holder 17 has an opening 20 of substantially circular cross-section therethrough, the axis of the opening 20 being substantially parallel to one axis of the spherical holder 17.

A parallel-faced entrance slot 21, is cut through the outer surface of the spherical holder 17, the surfaces of the holder adjacent the entrance slot being substantially parallel to the axis of the opening 20 extending through the holder, and located a short distance therefrom.

A parallel-faced connecting passage 22, the clear thickness of which is substantially equal to the distance between the faces of the entrance slot 21, is located adjacent the rear edge of the opening 20, the passage 22 being substantially perpendicular to the entrance slot 21, the passage 22 being connected to the rear portion of the entrance slot by an intermediate passage 24 of arcuate cross-sectional contour, which is formed by a corner radius 25. In the construction shown in Figure 2, the inner surface 26 of the connecting passage 22 is in substantial alignment with and blends into the outer circumference of the circular opening 20 through the holder.

The intersection between the curve of the outer circumference of the circular opening 20 through the holder, and the adjacent outer edge of the vertical connecting passage 22, forms a relatively sharp edge or tip 27, at the junction between these two surfaces.

After the elastic band 16 is wrapped around the tuft of hair 15 and the end of the elastic band which is attached to one holder, is stretched over the opposite holder 17*a*, the elastic band and the holders 17, 17*a* assume the position substantially as shown in Figure 1, relative to the "pony tail," or other tuft of hair.

Figures 5 and 6, show a modification of the elastic band holder shown in Figures 2 and 3, which is utilized in substantially the same manner as that shown in Figure 1, as shown in the assembled position shown in Figure 7.

The forward portion 30 of the holder 29, 29*a* is of circular segmental form, similar to that shown in Figures 2 and 3. The body of the holder is elongated, as shown in Figure 5, the rear end 31, which is of arcuate cross-sectional contour being of considerably smaller diameter than the spherical segmental forward portion 30 thereof.

The sloping sides 32, which connect the forward spherical segmental end of the holder with the smaller arcuate rear end, thereof, may either be straight, as shown in Figure 5, blending into the forward and rear curves, or of arcuate contour, depending upon the apperance of the holder desired.

The spherical segmental forward end of the holder has a substantially circular opening 33 therethrough.

The narrow parallel-faced entrance slot 34 cut through the forward portion of the holder is substantially the same as that shown in Figure 2, the entrance slot being located in substantially the same position relative to the circular opening 33 through the holder.

The edge or tip 35 formed at the junction between one edge of the intermediate passage and the circumferential wall of the opening 33 through the holder, is substantially the same as that shown in Figures 2 and 15.

In the assembled position, shown in Figure 7, the spherical segmental ends 30, 30*a* of the two holders are in engagement with one another as shown in Figure 7.

In wrapping the elastic band around the tuft of hair 15, one holder 29*a* attached to one end of the elastic band 16 is held substantially stationary, so that after the elastic band is wrapped around the tuft of hair, the sides of the elastic band overlap one another, and retain the holders 29, 29*a* in the relative positions shown in Figure 7, the elastic band gripping the tuft of hair around which it is wrapped.

Figures 9, 10 and 11 show another modification of the holder 17 shown in Figures 2 and 3.

In this construction, the holder 37 is of octagonal, or other regular polygonal cross-sectional contour, the distance between opposite faces 38, 38*a* of the octagonal, or other regular polygonal solid being substantially the same as the diameter of the spherical holder 17, shown in Figures 2 and 3.

The circular opening 39 through the body of the regular polygonal holder is substantially the same as that shown in Figure 2, the axis of the circular opening 39 being substantially parallel to one face of the holder.

The narrow parallel-faced entrance slot 41 cut through the forward portion of the holder shown in Figure 9, is substantially the same as that shown in Figure 2, the entrance slot being perpendicular to the forward face of the holder and located substantially the same distance from the opening 39 through the holder.

After the holders 37 are attached to an elastic band 16, the elastic band 16 is wrapped around the tuft of hair 15, in substantially the same manner as those shown in Figure 1.

In another modification of the holder construction, shown in Figures 12, 13 and 14, the holder 44 is similar to that shown in Figures 2 and 3, except for the fact that it is considerably longer, the cross-section of the holder in one plane thereof, being of oval, or elliptical contour, as shown in Figures 13 and 14, the cross-section in the plane perpendicular to the plane of Figure 13, being substantially circular, and of a diameter substantially the same as that of the holder shown in Figures 2 and 3.

The circular opening 45 through the holder is substantially the same as that shown in Figures 2 and 3, and is located in substantially the same position, relative to the circumferential forward edge of the holder, as that shown in Figure 2.

The narrow parallel-faced entrance slot 46, through which one end of the elastic band is inserted, is substantially the same as that shown in Figure 3, except that it is considerably longer, due to the greater length of the holder 44 in one plane thereof.

The connecting passage 48, substantially perpendicular

to the entrance slot, which connects the rear portion of the entrance slot with the circular opening 45 through the holder, is substantially the same as that shown in Figure 2.

The relatively sharp edge, or tip formed at the junction between the circumference of the circular opening through the holder and the outer surface of the substantially vertical connecting passage 48, is substantially the same as that shown in Figure 3.

Instead of the opening 45 through the holder 44, the entrance slot 46 and the passages leading to it, being located axially along the holder, substantially parallel to the longitudinal axes thereof, the opening through the holder, the entrance slot through which the elastic band is inserted into the opening, and the passages through the holder connecting the entrance slot to the opening 45, may be located substantially perpendicularly to the longitudinal axis of the holder 44.

While shown in Figures 1, 7 and 8 as including an elastic band 16 with two holders 17, 17*a* attached to the ends thereof, a single holder 17 such as that shown in Figures 2 and 3, or one of the modified holders shown in Figures 5 and 6 or 9 and 10, may be attached to one end of the elastic band 16, the elastic band being wrapped around a "pony tail" or other type of tuft of hair, the free end of the elastic band being fitted over the single holder 17, so that the sides of the elastic band straddle the holder 17, thereby gripping the sides of the elastic band 16 and the holder attached thereto in a manner substantially the same as that shown in Figure 1, except that the second holder 17*a* is eliminated.

In the same manner, one of the holders 17, such as that shown in Figures 2 and 3 may be attached to one end of the elastic band 16, and one of the modified holders 29, 37, such as those shown in Figures 5 and 6 or 9 and 10 attached to the opposite end of the elastic band 16, the elastic band being wrapped around a "pony tail," or other tuft of hair in substantially the same manner as those shown in Figures 1 and 7, the sides of the end of the elastic band attached to one holder 17 being fitted over and straddling the opposite holder 29 in substantially the same manner, so that the elastic band grips the tuft of hair, the sides of the elastic band gripping the holder 29 attached to one end of the elastic band in substantially the same manner as that shown in Figures 1 or 7.

The holder may be colored to any suitable shade by chemically coloring the plastic material of which it is made, of by applying an external surface color.

It will be apparent to those skilled in the art that the present invention is not limited to the specific details described above and shown in the drawings.

What is claimed is:

1. A hair tuft retainer combination fitted with an elastic gripping band, comprising an elastic band substantially in the form of an elongated continuous loop, a holder having an opening therethrough to receive a portion of the elastic band, removably attached to a portion of the elastic band located at each end thereof, the elastic band with the first holder attached thereto being adapted to be wrapped around a tuft of hair, the portion of the elastic band located adjacent the first of said holders being adapted to straddle the second holder, thereby to grip the second holder, the elastic band being adapted to grip the tuft of hair around which it is wrapped, a portion of the outer surface of the first holder abutting the outer surface of the second holder, each of said holders having connecting passages therethrough said passages including a parallel-faced slot extending through the outer surface of the holder, said passages being in direct communication with the opening through the holder, each of the holders being substantially solid, the slot through the outer surface of the holder being substantially parallel to the axis of the opening through the holder, one surface of one of the passages through the holder, connecting the slot to the opening through the holder, intersecting the surface of the holder surrounding the opening therethrough, to form a relatively sharp edge, the intersecting edge being adapted to restrict removal of the portion of the elastic band fitted to the opening, from the opening through the holder.

2. A retainer for removably gripping an elastic band substantially in the form of a continuous loop, including a holder having means therethrough adapted to receive a portion of the elastic band, a portion of the outer surface of the holder having a slot therethrough, the holder having a continuous passage therethrough to provide direct communication between the slot and the elastic band receiving means through the holder, the slot and the passage through the holder being adapted to allow a portion of an elastic band to be inserted therethrough into the elastic band receiving means, the surface of the holder around the elastic band receiving means therethrough being adapted to removably retain a portion of the elastic band within the holder, the holders being substantially solid and of a plastic material, each holder being of substantially spherical form.

3. A hair tuft retainer combination fitted with an elastic gripping band, comprising an elastic band substantially in the form of an elongated loop, a pair of holders removably attached to portions of the elastic band located at the ends thereof, each of said holders being in the form of a solid of revolution of substantially oval cross-section, each of said holders having an opening therethrough, the axis of the opening being substantially parallel to the longitudinal axis of the holder, said holder having a slot through the outer surface thereof, substantially parallel to the axis of said opening, and a connecting passageway through the holder connecting said slot to the opening through the holder, the surface of the holder surrounding said opening being adapted to receive and removably retain a portion of the elastic band, the elastic band with the first holder attached thereto being adapted to be wrapped around a tuft of hair, a portion of the elastic band located adjacent the first of said holders being adapted to straddle the second holder, thereby to grip the second holder, the elastic band being adapted to grip the tuft of hair around which it is wrapped, a portion of the outer surface of the first holder abutting the outer surface of the second holder.

4. A hair tuft gripping combination fitted with an elastic band, comprising an elongated elastic band substantially in the form of a loop, a pair of holders removably attached to said elastic band, each of said holders having an opening therethrough to receive and retain a portion of the elastic band, one of said holders being removably attached to a portion of the elastic band at each end thereof, each of said holders having a slot through the outer surface thereof, near the opening therethrough, with connecting passages connecting the inner end of the slot within the holder to the opening through the holder, the elastic band with the first of said holders attached thereto being adapted to be wrapped around a tuft of hair, a portion of the end of the elastic band located close to the first of said holders being adapted to straddle the second holder, thereby to grip the second holder, the elastic band being adapted to grip the tuft of hair around which it is wrapped; each holder being of substantially spherical form, the slot through the surface of each holder being substantially parallel-faced and located substantially parallel to the axis of the opening through the holder, one surface of one of the passages through the holder, connecting the slot to the opening through the holder, intersecting the surface of the holder surrounding the opening therethrough, to form a relatively sharp edge, the intersecting edge being adapted to restrict removal of the portion of the elastic band fitted to the opening, from the opening through the holder.

5. A hair tuft gripping combination fitted with an elastic band, comprising an elastic band substantially in the form of an elongated loop, a pair of holders remov-

ably attached to said elastic band, each of said holders having an opening therethrough to receive and retain a portion of the elastic band, one of said holders being removably attached to a portion of the elastic band at each end thereof, each of said holders having a slot through the outer surface thereof, near the opening therethrough, with connecting passages connecting the inner end of the slot within the holder to the opening through the holder, the elastic band with the first of said holders attached thereto being adapted to be wrapped around a tuft of hair, a portion of the end of the elastic band located close to the first of said holders being adapted to straddle the second holder, thereby to grip the second holder, the elastic band being adapted to grip the tuft of hair around which it is wrapped, each of the holders being of a plastic material, the cross-section through each of said holders being of regular polygonal form, the axis of the opening through the holder being substantially parallel to one face of the holder.

6. A hair tuft gripping combination fitted with an elastic band, comprising an elongated elastic band substantially in the form of a loop, a pair of holders removably attached to said elastic band, each of said holders having an opening therethrough to receive and retain a portion of the elastic band, one of said holders being removably attached to a portion of the elastic band at each end thereof, each of said holders having a slot through the outer surface thereof, near the opening therethrough, with connecting passages connecting the inner end of the slot within the holder to the opening through the holder, the elastic band with the first of said holders attached thereto being adapted to be wrapped around a tuft of hair a portion of the end of the elastic band located close to the first of said holders being adapted to straddle the second holder, thereby to grip the second holder, the elastic band being adapted to grip the tuft of hair around which it is wrapped, each of the holders being substantially in the form of a solid of revolution, the axial length of said holder being greater than the diameter thereof, in a plane perpendicular to the longitudinal axis of the holder, the portion of the holder through which the opening is cut being of substantially spherical segmental form, the axis of the opening through the holder being substantially perpendicular to the longitudinal axis of the holder, the opening being located near the outer surface of the spherical segmental portion of the holder, the end of the holder located diametrically opposite the spherical segmental portion thereof being substantially a solid of revolution of arcuate cross-section, of a diameter smaller than the diameter of the spherical segmental portion of the holder, the circumferential outer surface of the holder being tapered from the spherical segmental portion to the smaller diameter of arcuate cross-sectional contour.

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