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E. T. ROGERS ET AL

3,606,681

VACUUM ATTACHMENT FOR SCISSORS

Filed Feb. 5, 1970

FIG. 1

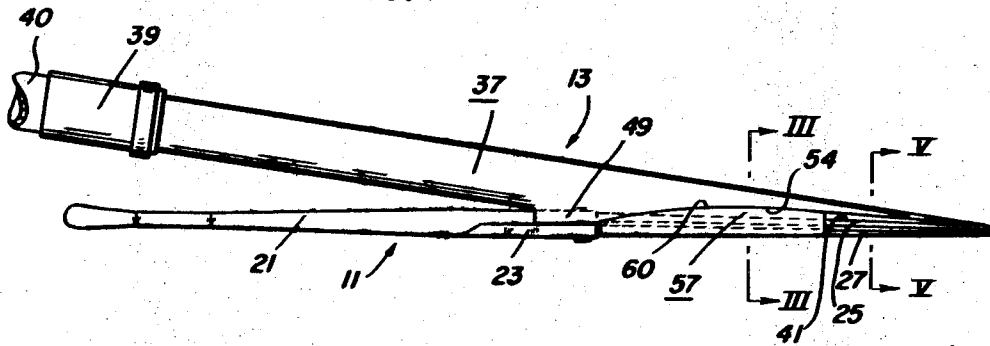


FIG. 2

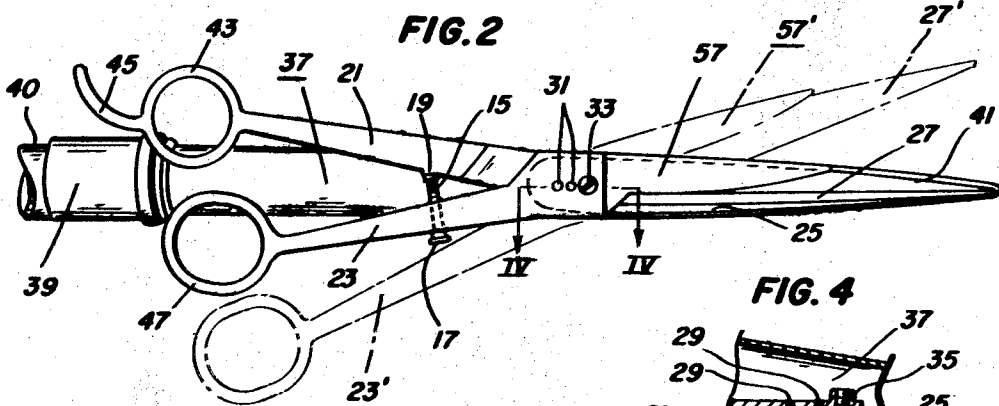


FIG. 3

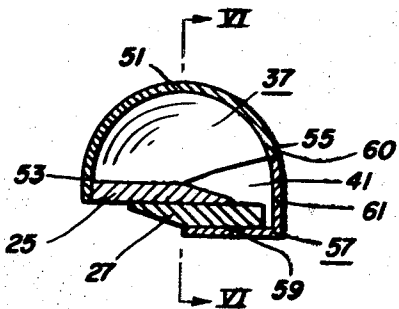


FIG. 4

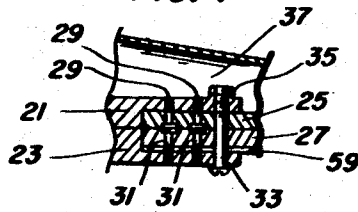


FIG. 5

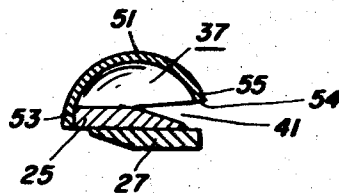
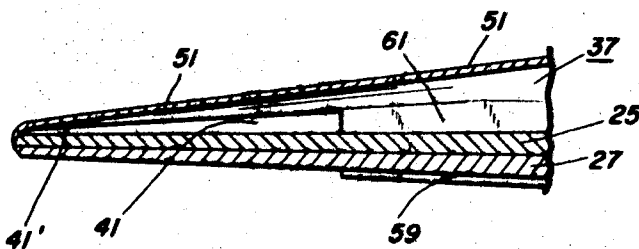


FIG. 6



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VACUUM ATTACHMENT FOR SCISSORS

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4 Claims

ABSTRACT OF THE DISCLOSURE

A device for adapting a pair of typical barber scissors to a typical vacuum fan having a suitable reservoir for collecting the accumulation of clippings of hair. The device includes an elongated tubular member having at the one end a mouthlike portion adjacent and secured to the one blade of the scissors with the other end terminating at a swivel connector and a flange member attached to the other blade which increases and decreases the size of the mouth as the scissors are opened and closed respectively.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention is in the field of cutlery and pertains to cutting tools having plural cooperating blades better known as shears.

(2) Description of the prior art

The broad concept of having a vacuum source attached to barber scissors or the like was apparently used by the La Mere Pat. No. 2,292,453, however, this patent is directed toward a vacuum clipper and while FIGS. 11, 12, 13 show a pair of ordinary hand scissors with a suction device associated therewith, there is no disclosure in the specification that teaches the practice of the invention.

SUMMARY OF THE INVENTION

The device of the present invention is directed towards providing a barber or the like a means to improve the professionalism of his art, i.e., cutting of hair. It is anticipated that this device will be used in conjunction with a typical vacuum attachment for an electric hair clipper, e.g., like that shown in Jording et al. Pat. No. 3,384,919. In practicing the art of barbering, particularly when cutting the hair on a male head, most barbers prefer starting with clippers, developing the general contour that they desire the head of hair to have, then accomplish the finishing touches with a pair of scissors. While it is common practice to drape a shroud over the shoulders of the customer and secure it tightly around his neck, it is well known that objectionable hair clippings still get down the neck and/or on the clothing of the customer. Several years ago a practical vacuum attachment for an electric clipper was developed which partially obviates this problem i.e., when using the clippers, and as a result, many barbers have adopted its use. Some barbers who use vacuum clippers attempt to obviate the problems completely by trimming with the vacuum clippers alone because to use the ordinary scissors to properly finish the trimming would possibly defeat the purpose of the vacuum clippers, i.e., get hair down the neck of the customer. The end result is an inferior haircut, however.

This invention is directed towards overcoming this problem by utilizing a vacuum source, e.g., a typical home vacuum cleaner or the like to pick up the hair clippings from the scissor blades and carry them through suitable tubing to the reservoir such as a fibrous bag which collects the accumulation of cut hair. Scissors adapted with the present invention may be effectively used for cutting long strands or bushy hair with the scissor blades widespread

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or are equally effective when snipping one hair with the ends of the scissor blades.

The device of present invention includes two cooperative members, each of which is attached to one of the two cooperative blades of a typical pair of barber scissors. A typical pair of barber scissors comprises a stationary blade and a thumb actuated movable blade. The stationary blade is fitted with an elongated tubular member having the one end adapted to a flexible conduit which is in communication with the vacuum source. The other end of the tubular member has an elongated mouth opening coextended in length with the stationary blade. The longitudinal axis of the tubular member is slightly inclined away from the longitudinal axis of the scissors in a direction toward the palm of the user's hand, so that the tubular member fits between the user's palm and the scissor handles when the scissors are held in a conventional manner. The movable blade is fitted with an elongated flange which partially closes off the mouth as the scissors are closed. This closing action is gradual and proportionally increases the effect of the vacuum adjacent the points of the blades as the scissor blades are brought together. This feature greatly increases the vacuum effect when it is needed most, for snipping short hair as the barber does when finishing off the haircut, or for snipping eyebrows.

Thus, with the use of the present invention, a barber may enhance the professionalism of his art which makes for a more satisfied customer and a higher income assuming the old adage "A satisfied customer is the best form of advertisement" is valid.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevation of the device installed on a pair of barber scissors in a closed position, i.e., one blade overlapping the other.

FIG. 2 shows a top plan view of the device and the movable blade is phantomized in a displaced open position.

FIG. 3 is a sectional view taken as on the line III—III of FIG. 1.

FIG. 4 is a sectional view taken as on the line IV—IV of FIG. 2.

FIG. 5 is a sectional view taken as on the line V—V of FIG. 1.

FIG. 6 is a sectional view taken as on the line VI—VI of FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A typical pair of barber scissors 11 with which the vacuum attachment 13 of the present invention is adapted to be incorporated is best shown in FIGS. 1 and 2. The scissors 11 include the usual adjustable stop screw 15, annular lock nut 17, the stop boss 19, the two handles 21, 23 and the two removable blades 25, 27 which are secured to the respective handles by two pair of screws 29, 31 with the handles being pivotally secured one with the other by the screw 33 threaded into the elastic stop nut 35. It should be understood that the vacuum attachment 13 may be secured to any typical scissors 11 in a suitable manner, i.e., tapped holes and screws, crimping or the like and/or fusing such as by silver soldering or the like. In accomplishing the following disclosure, a suitable attachment, as by using the screws 31 to secure one member and crimping for securing the other member is to be construed as an illustration only.

The vacuum attachment 13 includes an elongated tubular member 37, formed from stainless steel or the like, having at the one end a swivel connector 39 for adapting the device through flexible conduit 40 to a suitable vacuum source (not shown), such as standard home

vacuum cleaner or the like and having at the other end an elongated mouth 41 coextensive in length with the blades 25, 27. When operating a pair of barber scissors, the preferred procedure is to place the index finger through the ring 43 of the handle 21, engage the first joint of the ring finger with the arcuate extension of the handle 21 and to place the thumb through the ring 47 of the handle 23.

The scissors 11 are actuated by movement of the thumb, accordingly, the handle 21 and blade 25 remain substantially stationary and the handle 23 and the blade 27 accomplish the required movement. The tubular member 37 is attached to the stationary handle 21 adjacent the pivot screw 33 by an overlapping crimped portion 49, or the like, on the one side (FIG. 1) and an identical portion (not shown) on the other. The longitudinal axis thereof is inclined slightly upward from the plane of the scissors 11 in a direction towards the user's palm, in such a manner that the rearward portion of tubular member 37 is closely spaced relative to said handles 21, 23 and may be comfortably and unobstructively positioned between the user's palm and fingers as the scissors 11 are operated.

Referring to FIGS. 3, 5, 6, it can readily be seen that a greater portion of the circumference of the tubular member 37 coextending with the blade 25 (i.e., the forward part of tubular member 37) is cut away and that an upper wall 51 and two side walls 53, 55 taper to a point converging adjacent the point of the blades 25, 27 of the scissors 11. The lower edge of the wall 53 integrally overlaps and engages the entire length of the back side of the blade 25, forming a substantial airtight joint. The lower edge 54 of the wall 55 has an arcuate shape, as best viewed in FIG. 1, extending along the cutting edge of the blade 25. In other words, the blade 25 closes off the greater portion of that part of the tubular member 37 which was cut away, thus forming the elongated mouth 41 which in operation is constantly drawing in a current of air as this is the only opening in communication with the vacuum source (not shown).

The vacuum attachment 13 also includes an elongated flange member 57, formed from stainless steel or the like, best viewed in FIGS. 1, 2. The length of the flange member 57 is considerably less than that of the blades 25, 27 and its cross section substantially forms a right angle, as best viewed in FIG. 3 where a horizontal portion 59 is shown contiguously engaging the blade 27. The uppermost edge 60 of a substantial vertical portion 61 of the flange member 57, being curved to conform to the lower edge of the sidewall 55 of the tubular member 37, contiguously engages the lower edge of the sidewall 55 of the tubular member 37 substantially forming an airtight seal when the scissors 11 are in a closed position. The proximal end of the flange member 57, having suitable apertures for receiving the screws 31, 31, 33 and chamfered to conform to the shape of the corresponding end of the blade 27, is sandwiched between the handle 23 and the blade 27 and is removably secured to the handle 23 simultaneously with the blade 27 by the screws 31, 31, as best viewed in FIG. 4. The distal end of the horizontal portion 59 of the member 57 is tapered off with a slow sweeping curve terminating substantially at the vertex of the member 57.

The scissors 11 and the vacuum attachment 13 are shown in solid lines in FIG. 2 in the closed position by the handle and blade being designated 23, 27 and in the open position by the phantomized handle and blade being designated 23'. FIG. 2 also depicts the operating relationship between the two members 37, 57 of the vacuum attachment 13 wherein the member 57 is stationary with respect to the blade 27 and the member 37 is stationary with respect to the blade 25. The vertical portion 61 (FIG. 3) of the number 57 extends adjacent the back side of the blade 27 and the outer surface is substantially flush with the outer surface of the tubular member 37 when the scissors 11 are in the closed position.

When the scissors 11 having the vacuum attachment 13 incorporated therewith are in a closed position, the proximal end of the elongated mouth 41 is closed by the vertical portion 61 of the flange member 57 contiguously engaging the corresponding portion of the member 37, however, the distal end of elongated mouth 41 remains unobstructed. In the open position, the vertical portion 61 of the member 57, being displaced as shown in FIG. 2 by the numeral 57', effectively increases the size of the opening of the mouth 41. As the scissors 11 are closed, the size of the mouth gradually decreases, thus increasing the vacuum effect as the scissors blades 25, 27 are brought together.

In operation, the swivel connection 39 of the vacuum attachment 13 is connected to a flexible conduit which is in communication with a vacuum source. The barber grips the scissors 11 in the conventional manner as previously described, and the swivel 39 permits the scissors and the attachment 13 to be rotated without tangling the flexible conduit. When the barber is actuating the scissors 11 with his thumb, he may look between the blades in the same manner that he does with a conventional pair of scissors 11. In other words, this device does not interfere with the skill of the barber and using it does not require any training or changes in the technique of the barber. The barber merely clips the hair in the same manner as he did with a conventional pair of scissors 11; however, the hair clippings will not fall to the shoulders or down the neck of the customer.

A current of air is constantly rushing into the mouth 41 which picks up the hairs and carries them through the interconnected conduit and deposits them in the receptacle (not shown). As the blades 25, 27 are brought together from an open position, the vertical portion 61 of the flange member 57 gradually closes off a portion of the mouth 41 and increases the effectiveness of the vacuum adjacent the points of the blades 25, 27. This feature greatly increases the vacuum effect when it is needed most, e.g., a barber uses scissors mostly for snipping short hairs and would not open the scissors wide for this purpose. Also, it will be noted that the scissors 11 having the vacuum attachment 13 thereon are particularly effective when cutting real short hairs (as opposed to average length short hairs) with the portion of the scissors adjacent the tips thereof since the tubular member 37 is tapered at a relatively flat angle to a point so that there is no interference with the barber's work, and the elongated mouth 41 is narrow and correspondingly tapered at a relatively small angle so that the vacuum is very effective in picking up the short hairs in this area. Also, the taper of the mouth 41 generally corresponds to the length of the short hairs being cut. Thus, real short hairs can be cut near the very tip of the scissors, in the area 41' of mouth 41 (see FIG. 6) where the mouth is very narrow as compared with the remainder thereof. When the barber wishes to open the scissors wide for cutting longer or more bushy hair, the possibility of hair falling down the neck or onto the shoulders of the customer is extremely remote because the variable vacuum effect is sufficient for this purpose likewise. A barber accustomed to using vacuum clippers need no longer be hesitant about using scissors when the vacuum attachment 13 is incorporated therewith. Thus, the vacuum attachment 13 for scissors 11 of the present invention enhances the professionalism of the art of barbering.

Although the invention has been described and illustrated with respect to a preferred embodiment thereof, it is to be understood that it is not to be so limited since changes and modifications may be made therein which are within the full intended scope of this invention.

We claim:

1. A vacuum attachment for a pair of scissors including a first handle having a first blade attached thereto, a second handle having a second blade attached thereto, and pivot means coupling said handles for movement of

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said blades between open and closed positions; said vacuum attachment comprising a tubular member attached to said first handle adjacent the forward end of said first handle, the forward portion of said tubular member extending along the length of said first blade and being tapered to a point at the tip end of said first blade, said tubular member having a side wall terminating in a lower edge disposed in spaced relationship to said first blade and converging forwardly and downwardly to the tip of said first blade to provide a mouth having a tapered mouth portion adjacent the tip of said first blade, and flexible conduit means coupled to said tubular member for communicating said tubular member with a vacuum source to draw air and cut hairs into said attachment through said mouth of said attachment.

2. The vacuum attachment of claim 1 in which said tubular member is disposed at a slight angle relative to said first handle with the rearward portion of said tubular member being closely spaced relative to said first handle for positioning between the user's palm and fingers during the use of said scissors.

3. The vacuum attachment of claim 1 in which is included an elongated flange attached to said second blade

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and extending along a rearward portion of the length of said blade, said flange having an upper edge contiguous with a rearward portion of said lower edge of said side wall of said tubular member and said flange blocking a substantial portion of said mouth rearwardly of said tapered portion of said mouth when said scissors are in a closed disposition.

4. The vacuum attachment of claim 3 in which the contiguous portions of said lower edge of said side wall and said upper edge of said flange are disposed in an upwardly extending arc with the highest portion of said arc being intermediate the forward and rearward ends of said flange.

References Cited

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J. C. PETERS, Assistant Examiner