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Arpino

[11] **3,827,144**

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[54] **SHAVER CUTTER HEAD**

[75] Inventor: **Ronald G. Arpino,** Branford, Conn.

[73] Assignee: **Sperry Rand Corporation,** Bridgeport, Conn.

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[52] **U.S. Cl.** **30/43.92**

[51] **Int. Cl.** **B26b 19/02,** B26b 19/04

[58] **Field of Search** 30/43.91, 43.92, 43.2

[56] **References Cited**

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Primary Examiner—Al Lawrence Smith
Assistant Examiner—M. Joyce
Attorney, Agent, or Firm—Charles R. Miranda; Donald P. Walker

[57] **ABSTRACT**

An improved shaver cutter head, including an outer cutter, an inner cutter mounted within the outer cutter, and means for moving the inner cutter within the outer cutter in a predetermined path of travel. Each of the cutters has a hair-shearing first wall portion, the first wall portion of the mounted inner cutter being urged into engagement with the first wall portion of the outer cutter for shearing hair as the inner cutter is moved in said predetermined path of travel within the outer cutter. The outer cutter also has opposed, non-hair-shearing, second and third wall portions, respectively depending from the first wall portion of the outer cutter. The second wall portion is provided with an aperture, and the third wall portion is oriented to extend in the direction of movement of the inner cutter within the outer cutter. A resilient member disposed adjacent to the outer cutter's second wall portion, extends through the aperture therein and urges the moving inner cutter into sliding engagement with the third wall portion of the outer cutter. As a result, the moving inner cutter is directly guided by the third wall portion in the aforesaid predetermined path of travel.

8 Claims, 8 Drawing Figures

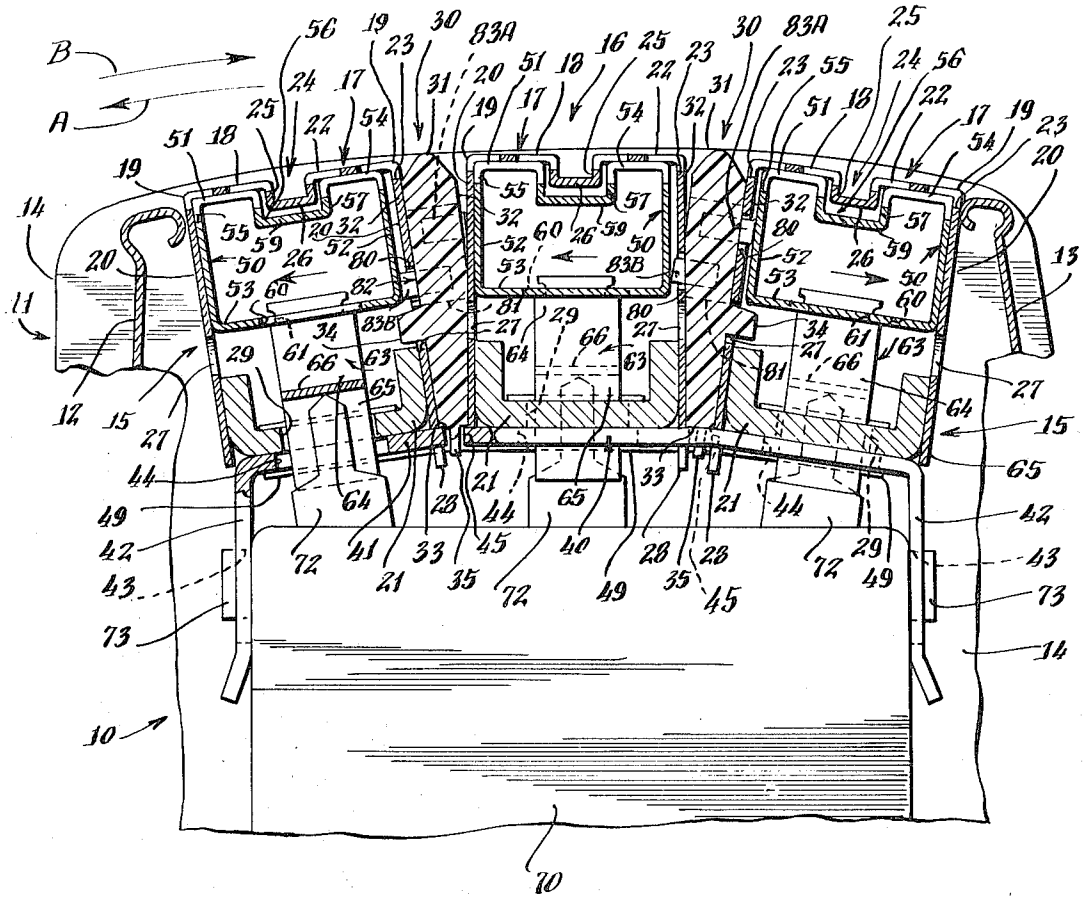

Fig. 1

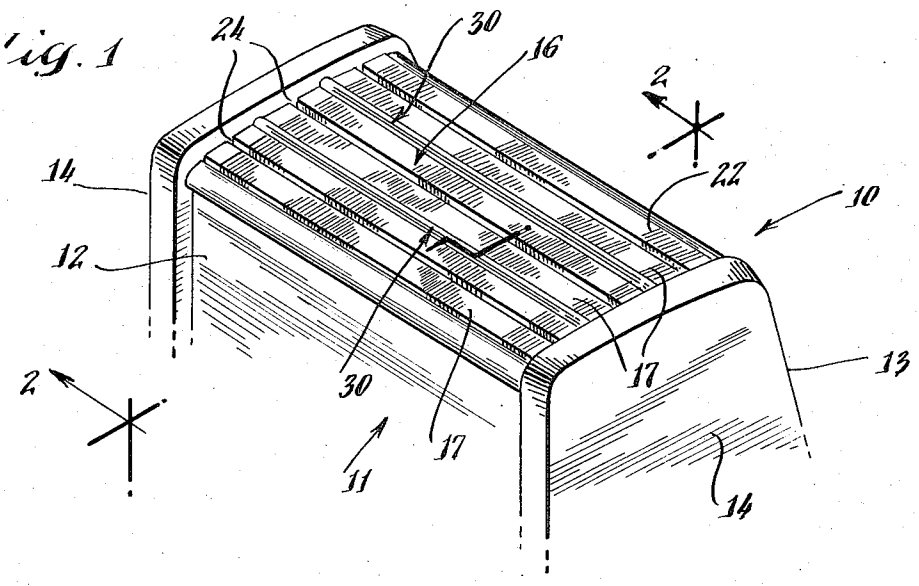
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Fig. 2

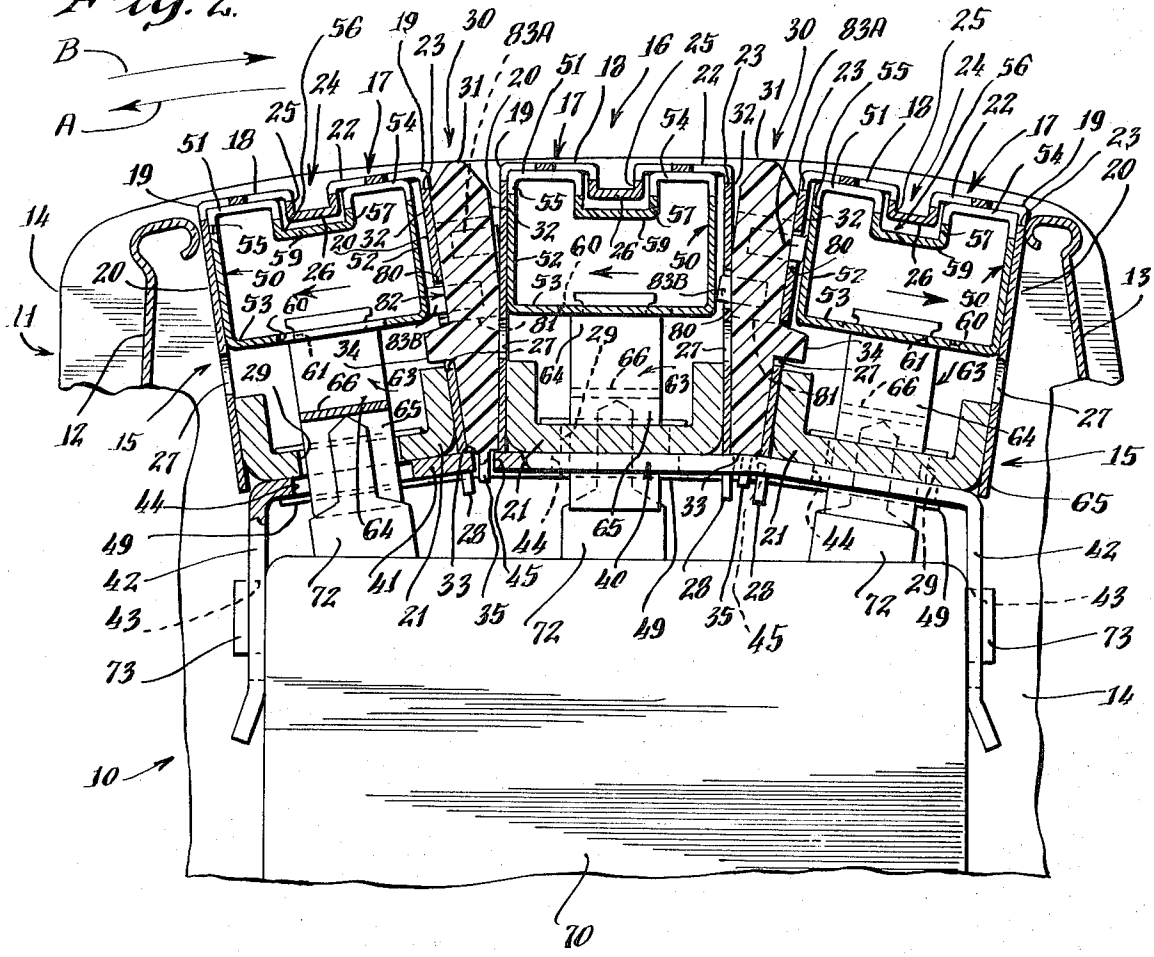
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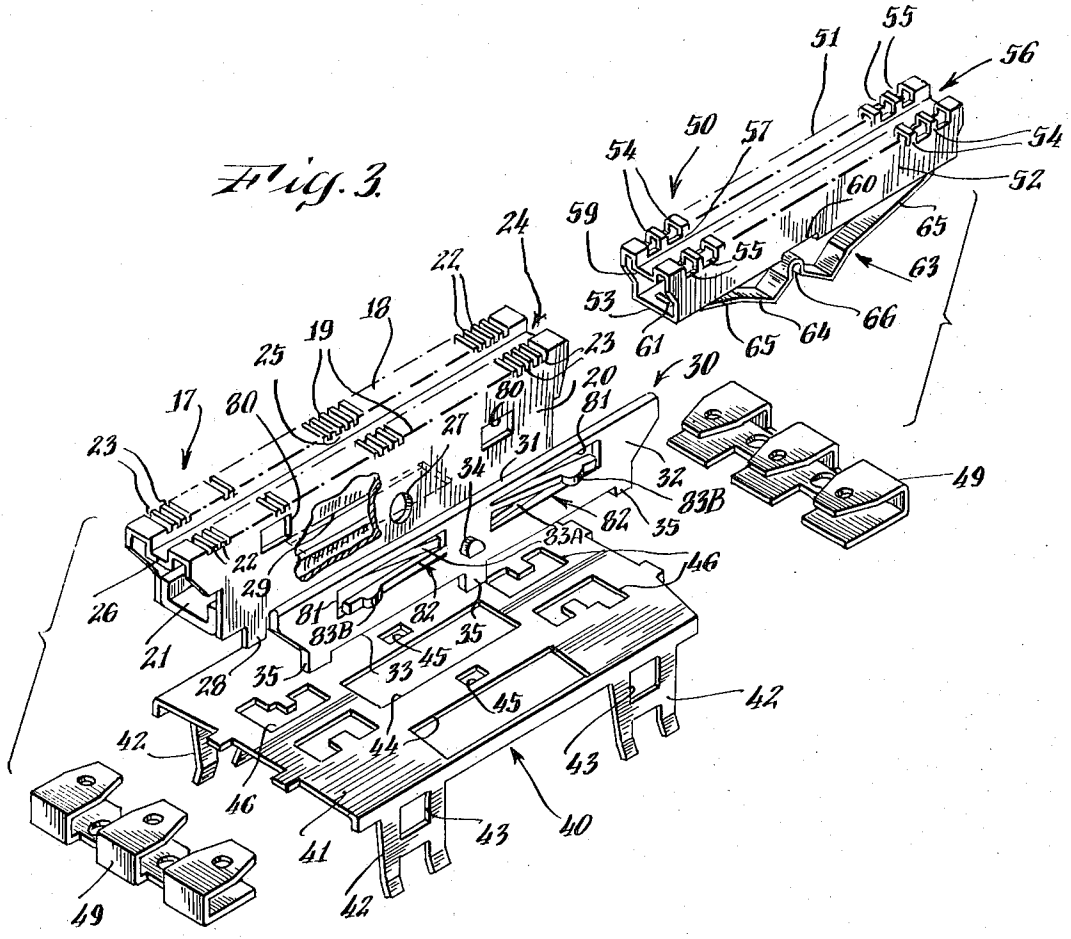
Fig. 3.



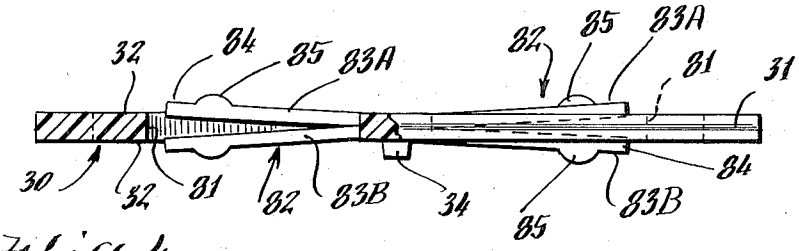
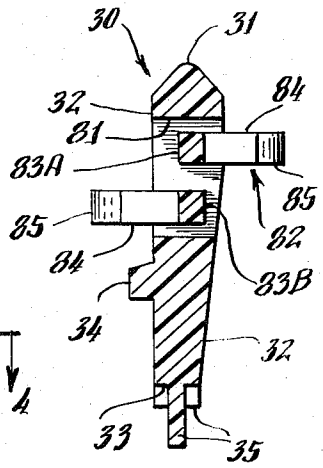


Fig. 4.

Fig. 6.



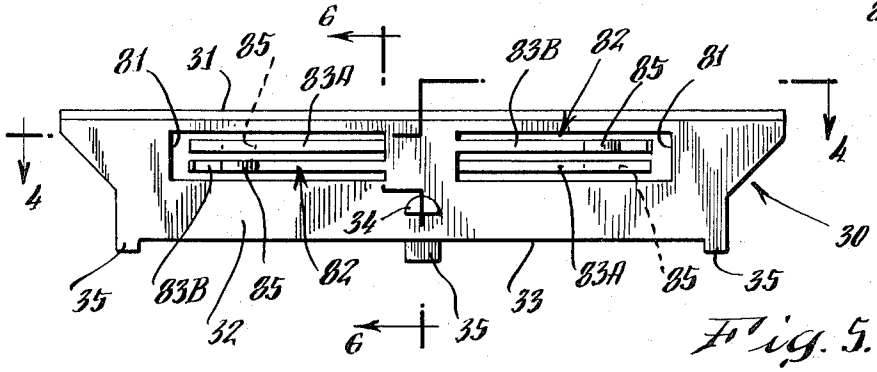


Fig. 5.

Fig. 7.

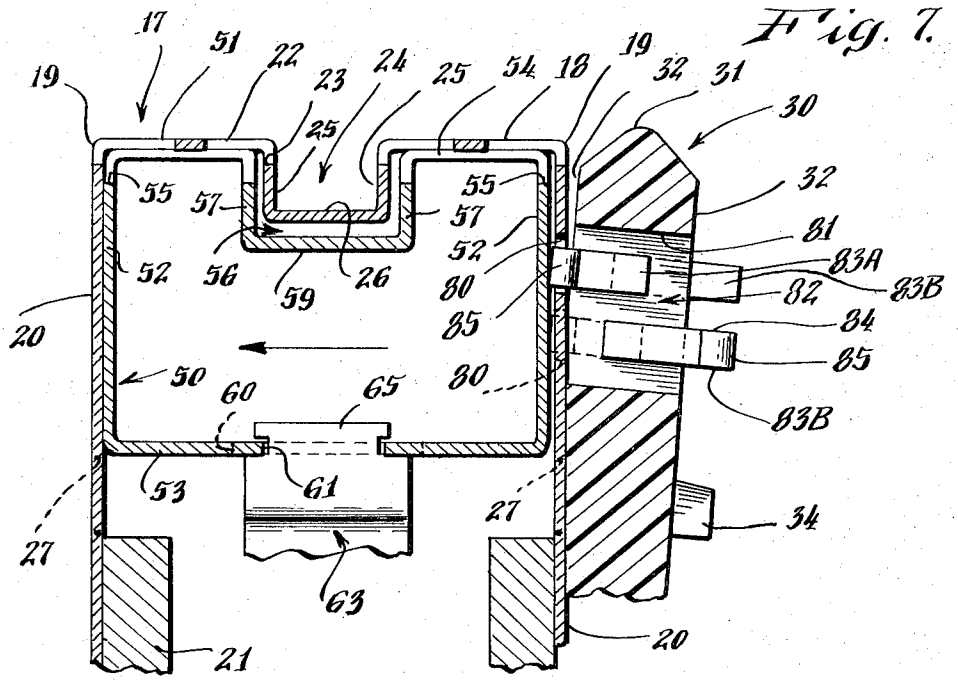

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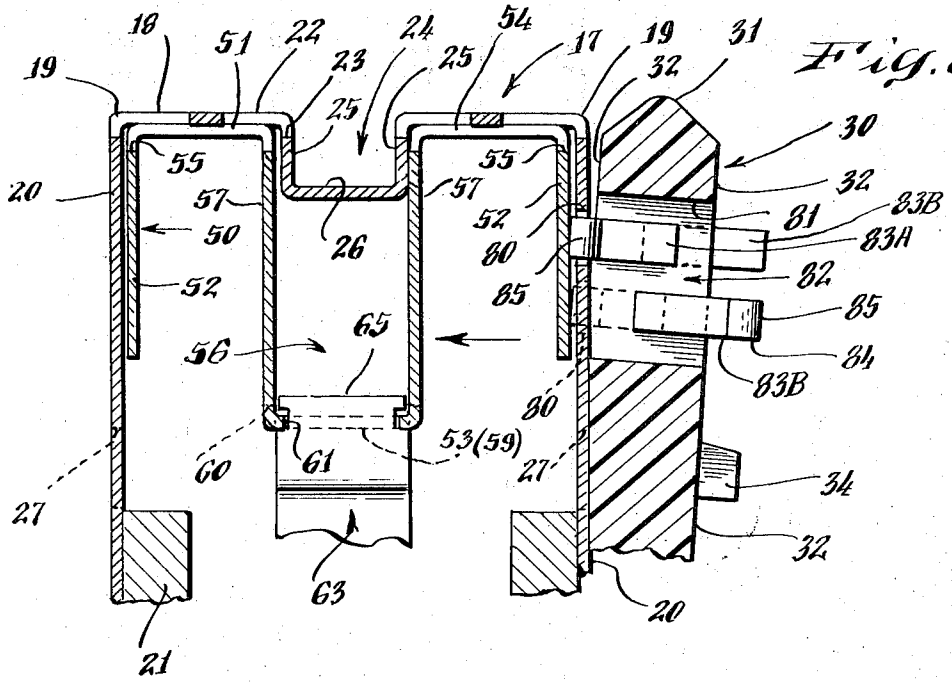
Fig. 8.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SHAVER CUTTER HEAD

BACKGROUND OF THE INVENTION

This invention is concerned with means for guiding a moving inner cutter in a predetermined path of travel within an outer cutter of an electric dry shaver cutter head. More particularly, the invention is concerned with providing resilient means adapted to urge the moving inner cutter into sliding engagement with an outer cutter wall portion which extends in the direction of said predetermined path of travel, whereby the wall portion directly guides the moving inner cutter in said predetermined path of travel.

Although the invention is generally adaptable to shaver cutter heads which include either rotating or reciprocating inner cutters, for exemplary purposes this disclosure describes the invention in connection with a cutter head of the type which includes a reciprocating inner cutter.

A typical cutter head of the exemplary type includes one or more hollow, elongated, outer cutters, which are rectangular in transverse cross-section, and a corresponding number of elongated inner cutters mounted for reciprocation within the outer cutters. Each of the cutters includes a hair-shearing upper wall portion, spaced, non-hair-shearing side wall portions, and a lower wall portion. For hair-shearing purposes, the upper wall portions of the cutters are slotted to provide a plurality of parallel hair-shearing teeth with hair shearing edges. The hair-shearing wall portion of a given inner cutter, and particularly the hair-shearing edges thereof, are urged, by means of a spring connected to the inner cutter, to cooperate with the hair-shearing wall portion of the outer cutter, for shearing hair as the inner cutter is reciprocated within the outer cutter. The inner cutter is normally reciprocated by means of the spring, which has a mid-portion driven by a motor mounted within the shaver, and opposite end portions connected to the lower wall portion of the inner cutter. The motor is provided with a plurality of motor arms, each of which urges a spring and thus one of the inner cutter hair-shearing wall portions into engagement with an outer cutter hair-shearing wall portion, and reciprocates the inner cutter several hundred times per minute.

To promote rapid assembly of inner and outer cutters, the cutters are relatively dimensioned to allow for fitting the inner cutters and connected springs loosely into randomly chosen outer cutters. On the other hand, a loose fitting relationship between a given inner and outter cutter allows for unwanted transverse movement of the reciprocating inner cutter toward the side wall portions of the outer cutter. Such transverse movement results in the inner cutter intermittently contacting the outer cutter side wall portions, causing noise to be emitted by the cutter head, and causing excessive wear of inner cutters, springs and other parts of the cutter head. To cure this problem the moving inner cutter should be guided to ensure travel thereof in a predetermined, substantially linear path of travel.

Accordingly, an object of this invention is to provide an improved cutter head for an electric dry shaver, including novel means for directly guiding a moving inner cutter in a predetermined path of travel within an outer cutter; and

Another object is to provide, in combination, a shaver cutter head of the type which includes an outer and inner cutter wherein the inner cutter is mounted within the outer cutter and adapted to be moved in a predetermined path of travel therewithin, and resilient means disposed adjacent to the outer cutter and adapted to urge the moving inner cutter into sliding engagement with a non-hair-shearing wall portion of the outer cutter which is oriented in the direction of said path of travel of the inner cutter.

SUMMARY OF THE INVENTION

The invention resides in providing a shaver cutter head including an outer and inner cutter and improved means for directly guiding the inner cutter in a predetermined path of travel within the outer cutter. Each of the cutters includes a first wall portion having means for shearing hair. The inner cutter is adapted to be mounted and moved within the outer cutter, such that the first wall portion of the moving inner cutter is disposed to cooperate with the first wall portion of the outer cutter for shearing hair. The outer cutter also has oppositely disposed, non-hair-shearing, second and third wall portions. The second wall portion has an aperture formed therein, and the third wall portion is oriented to extend in the direction of said predetermined path of travel of the moving inner cutter. In addition, the cutter head includes a member disposed adjacent to the outer cutter's second wall portion. The member includes resilient means extending through the aperture in the outer cutter's second wall portion for urging the moving inner cutter into sliding engagement with the outer cutter's third wall portion. Since the outer cutter's third wall portion is oriented in the direction of the aforesaid predetermined path of travel of the moving inner cutter, the second wall portion directly guides the moving inner cutter within the outer cutter.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of the upper portion of an electric dry shaver, including an improved cutter head in accordance with the invention;

FIG. **2** is an enlarged fragmentary cross-sectional view, in elevation, of the upper end portion of the shaver of FIG. **1**, taken substantially along the line **2—2** of FIG. **1**, showing an embodiment of the improved cutter head, including a plurality of outer cutters and spacer members respectively mounted on a cutter head frame, the cutters and spacer members being constructed in accordance with invention;

FIG. **3** is a partial exploded perspective view of the cutter head of FIG. **2**, which shows details of one of the outer cutters and spacer members according to the invention, details of one of the inner cutters with a connected spring, and the cutter head frame.

FIG. **4** is an enlarged top plan view, partially in section, of the spacer member shown in FIG. **3**, the section being taken substantially along the line **4—4** of FIG. **5**;

FIG. **5** is a side view of the spacer member shown in FIG. **4**;

FIG. **6** is a cross-sectional view, in elevation, of the spacer member shown in FIG. **5**, taken substantially along the line **6—6** of FIG. **5**;

FIG. **7** is a fragmentary cross-sectional view, in elevation, of the improved cutter head; and

FIG. 8 is a fragmentary cross-sectional view, in elevation, of another embodiment of the improved cutter head.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in the drawings, wherein like reference numerals designate like or corresponding parts throughout the several views, an upper portion of an electric dry shaver **10** (FIGS. **1** and **2**), of the type in which the invention may be included, generally includes an upper portion of a casing **11.** The casing **11** includes spaced front and rear walls, respectively numbered **12** and **13,** and spaced side walls **14.** The walls **12, 13** and **14** define a rectangularly-shaped receptacle **15** within which a cutter head **16** is located.

The cutter head **16** includes a plurality of hollow, elongated, stationary, skin-contacting, outer cutters **17,** which are rectangular in transverse cross-section. As shown in FIGS. **2** and **3,** each of the outer cutters **17** has a hair-shearing upper wall portion **18,** including oppositely disposed, parallel, marginal edges **19.** In addition, each of the outer cutters **17** includes oppositely disposed, non-hair-shearing, side walls portions **20,** respectively depending from the opposite marginal edges **19** of the upper wall portion **18.** Each of the outer cutters **17** also includes an elongated base spacer **21.**

The upper walls **18** (FIG. **3**) of the outer cutters **17** each include two rows of a plurality of spaced, parallel, transversely extending, hair-shearing teeth **22.** The teeth **22** are formed by two rows of hair reception slots **23,** spaced from one another by a substantially U-shaped channel **24** protruding inwardly of the outer cutter **17.** Each of the channels **24** includes a pair of oppositely disposed, depending, non-hair-shearing wall portions **25,** respectively located intermediate the side wall portions **20** of the outer cutter **17,** and a base wall portion **26.**

The opposed side wall portions **20** (FIG. **3**) of the outer cutters **17** respectively include an aperture **27,** one of which is shown in FIG. **3.** Each of the apertures **27** is located approximately midway of the side wall portion **20** in which it is formed, but closer to the base spacer **21** than to the upper wall portion **18** of the outer cutter **17.** In addition, at least one of the side wall portions **20** includes a downwardly protruding tab **28** located adjacent to one of the ends of the base spacer **21.**

The outer cutter base spacers **21** (FIGS. **2** and **3**) are respectively U-shaped in transverse cross-section and have a rectangularly-shaped aperture **29** formed therein. The apertures **29** are located approximately midway between the ends of the respective base spacers **21.** The base spacers **21** are positioned between the lower ends of the side wall portions **20** of the respective outer cutters **17,** and fixedly connected thereto by known means, for example, as by welding, to provide each of the outer cutters **17** with a rigid, apertured, lower wall portion.

The cutter head **16** (FIGS. **2** and **3**) also includes a plurality of elongated, stationary, skin contacting non-hair-shearing spacer members **30** (FIGS. **2** and **6**). Each of the spacer members **30** has a narrow, upright, generally rectangularly-shaped, transverse cross-section; and includes a curved upper edge **31,** opposed side surfaces **32** and a lower edge **33.** At least one of the side surfaces **32** includes an outwardly extending lug **34,** and the lower edge **33** includes a plurality of equidistantly spaced, downwardly extending, protrusions **35** (FIG. **3**).

As shown in FIGS. **2** and **3,** the outer cutters **17** are arranged parallel to one another and respectively spaced from the next adjacent of their number by means of one of the spacer members **30.** As shown in FIG. **2,** the outer cutter side wall portions **20** abut with the spacer member side surfaces **32** next adjacent thereto, and the spacer member lugs **34** extend into the outer cutter apertures **27** located next adjacent thereto. As thus arranged, the outer cutters **17** and spacer members **30** are mounted on a cutter head mounting frame **40** (FIG. **3**).

As shown in FIG. **3,** the cutter head mounting frame **40** includes an elongated, rectangularly-shaped, base plate **41** having a plurality of legs **42,** each provided with an aperture **43.** The base plate **41** also includes a plurality of spaced, parallel, rectangularly-shaped apertures **44** and **45** formed therein, the apertures **44** being larger than the apertures **45.** A plurality of generally U-shaped apertures **46** are also formed in the base plate **41.** The U-shaped apertures **46** are disposed in the form of a rectangular array (not numbered) in the base plate **41** and dimensioned to receive the outer cutter protrusions **28** for aligning each of the outer cutter apertures **29** in registry with one of the frame apertures **44.** In addition, each of the spacer member protrusions **35** is dimensioned to be inserted into one of the base plate apertures **44** or **45.** Upon thus assembling the outer cutters **17,** spacer members **30** and frame **40,** the outer cutters **17** are connected to the frame **40** by means well-known in the art, for example, as by means of clips **49** adapted to tightly hold the ends of each of the outer cutter base spacers **21** in contact with the frame **40** (FIGS. **2** and **3**).

As shown in FIGS. **2, 3** and **7,** the shaver cutter head **16** also includes a plurality of hollow, elongated movable, inner cutters **50,** which are rectangular in transverse cross-section. Each of the inner cutters **50** has a hair-shearing upper wall portion **51,** oppositely disposed, depending, side wall portions **52,** and a lower wall portion **53.** The upper wall portions **51** of the inner cutters **50** (FIGS. **2** and **3**) each include two rows of a plurality of spaced, parallel, transversely extending, hair-shearing teeth **54.** The teeth **54** are formed by two rows of hair reception slots **55,** spaced from one another by a substantially U-shaped, inwardly protruding, channel **56.** Each of the channels **56** includes a pair of oppositely disposed, depending, non-hair-shearing wall portions **57,** respectively located intermediate the side wall portions **52** of the inner cutter **50,** and a lower wall portion **59.**

Another form of inner cutter **50** is shown in FIG. **8.** The inner cutter **50** of FIG. **8** differs from the inner cutter **50** of FIG. **7** in that it has an inverted W-shaped transverse cross-section; the inner cutter channel **56** (FIG. **8**), and thus each of the opposed, depending, channel wall portions **57** (FIG. **8**), extends further inwardly of the inner cutter **50** than the corresponding wall portions **57** of the inner cutter **50** of FIG. **7;** and the channel's lower wall portion **59** (FIG. **8**) is the inner cutter's lower wall portion **53.** Thus the inner cutter **50** of FIG. **8** has a lower (channel) wall portion **53** (**59**).

The lower wall portions **53** of the inner cutters **50** (FIGS. **3, 7** and **8**) respectively include a rectangularly-

shaped aperture **60** formed therein. The apertures **60** are located approximately midway between the ends of the respective lower wall portions **53**. In addition, each of the lower wall portions **53** includes spaced apertures **61**, located on either side of aperture **60**, each near one of the opposite ends of the lower wall portion **53**. The apertures **61** of the respective inner cutters **50** are adapted to have seated therein the end portions an elongated spring **63**.

As shown in FIGS. **2** and **3**, each of the springs **63**, is rectangularly-shaped in transverse cross-section, and has a body portion **64** and spaced end portions **65**. Each of the body portions **64** is provided with a partial loop **66**, formed therein approximately midway between the spring end portions **65**. The spring end portions **65** are dimensioned to be seated within the inner cutter apertures **61** and adapted by means well-known in the art to be removably connected to the inner cutter lower wall portions **53**. The connected springs **63** are thus adapted to be carried by the inner cutters **50** beneath the lower wall portions **53** thereof.

As shown in FIG. **2** an inner cutter **50** and connected spring **63** is removably inserted, by means well-known in the art, into each of the outer cutters **17**. In addition, the cutter head **16** is mounted within the cutter head receptacle **15** and detachably connected in place. For example, as shown in FIG. **2**, the shaver **10** includes a shaver motor housing **70** within which a shaver motor (not shown) is disposed. The motor includes a plurality of motor arms **72**, adapted by known means (not shown) to be reciprocated by the motor (not shown). The motor arms **72** respectively extend upwardly from the housing **70**, and the housing **70** includes a plurality of lugs **73** extending laterally therefrom. The lugs **73** are dimensioned to detachably engage the apertures **43** in the legs **42** of the cutter head frame **40**, thereby mounting the cutter head **16** within the shaver casing **11**.

Each of the motor arms **72** (FIG. **2**) extends through the next adjacent cutter head frame aperture **44** and into one of the outer cutter base plate apertures **29**, to engage the next adjacent inner cutter spring loop **66**. As the motor arms **72** engage the springs **63**, each of the springs **63** is urged from a relaxed state to a compressed state and towards the associated inner cutter lower wall portion **53**. When the shaver motor (not shown) is operated, reciprocating motion of the motor arms **72** is transmitted to the inner cutters **50** via their connected springs **63**. Concurrently, the springs **63** urge the upper hair-shearing wall portions **51** of the inner cutters **50** into sliding engagement with the upper hair-shearing wall portions **18** of the outer cutters **17** for shearing hair.

When the shaver **10** (FIGS. **1** and **2**) is in use, the uppermost surfaces of the cutter head **16**, and thus the upper wall portions **18** of the outer cutters **17** and the curved upper edges **31** of the spacer members **30**, are placed in contact with the user's skin (not shown) and moved thereacross for shearing hairs (not shown). Normally the shaver **10** is moved in a hair-shearing path wherein both the outer cutter upper wall portions **18** and spacer member upper edges **31** extend transversely of the path of movement, for example, in path directions shown by the arrows A or B (FIG. **2**). As the cutter head **16** is moved across the user's skin, hairs which enter the outer cutter slots **23** are shorn by the inner cutter teeth **54** in cooperation with the outer cutter teeth **22**. Concurrently, the spacer member upper edges **31** exert sufficient pressure on the user's skin to stretch the skin in the area thereof immediately in advance of the path of movement of the outer cutter marginal edges **19**, thereby preventing the user's skin from entering the outer cutter slots **23**. In addition, the spacer member upper edges **30** contact the hairs extending from the user's skin in advance of the path of movement of the outer cutter marginal edges **19**, and lift the hairs, by means well-known in the art, from the surface of the skin, to facilitate their entry into the outer cutter slots **23**.

The inner and outer cutters, **50** and **17**, as hereinbefore described, are respectively dimensioned to have a loose fitting relationship with one another to allow consumer's to periodically replace the inner cutters **50**. As a consequence, although the inner cutters **50** are urged into sliding engagement with the upper wall portions **18** of the outer cutters **17**, the inner cutters **50** are able to move toward the outer cutter wall portions **20** and **25**. The inner cutters **50** thus move both transverse to the direction of travel of the inner cutters **50** within the outer cutters **17**, and transverse to the direction the springs **63** urge the inner cutters **50** into sliding contact with the upper wall portions **18** of the outer cutters **17**. Such transverse movement causes the reciprocating inner cutters **50** to intermittently contact the outer cutter side wall portions **20**, or the channel wall portions **25**, depending on the relative dimensions of the inner and outer cutters **50** and **17**. As a result, the cutter head **16** tends to emit noise, and the outer cutters **17**, inner cutters **50**, springs **63** and other parts of the cutter head **16**, tend to become excessively worn. Accordingly, this invention is directed to providing means for preventing the aforesaid transverse movement of the reciprocating inner cutters **50** within outer cutters **17**.

To that end, as shown in FIG. **3**, **7** and **8**, one of the side wall portions **20** of each of the outer cutters **17** is provided with at least one, and preferably two, rectangularly-shaped, apertures **80**. The apertures **80** (FIG. **2**) are spaced apart from one another and located on opposite sides of, and above, the side wall apertures **27**. As shown in FIG. **2**, the apertures **80** are located adjacent one of the side wall portions **52** of the inner cutter **50**, when the inner cutter hair-shearing wall portion **51** is disposed in sliding engagement with the outer cutter hair-shearing wall portion **18**.

In addition, according to the invention each of the spacer members **30** (FIG. **3**) is provided with at least one, and preferably two apertures **81**, from which resilient means **82** extend. As shown in FIGS. **4–6**, the apertures **81** are spaced from one another and have a substantially rectangularly-shaped configuration. The resilient means **82** includes at least one, and preferably four, elongated, resilient arms **83**, respectively designated **83A** or **83B** for discussion purposes to distinguish between the side surfaces **32** of the spacer member **30** from which the arms **83** outwardly extend. Preferably, one of the arms **83** of each pair of arms **83A** and **83B** extends from each of the apertures **81**. Each arm **83A** or **83B** (FIG. **3**) includes a free end **84** having a protrusion **85** thereon. The protrusions **85** on arms **83A** and **83B** are disposed in the same spatial relationship relative to one another and to the outer cutter lug **34**, as the outer cutter apertures **80** are disposed relative to one another and to the outer cutter aperture **27**. As a result, when the outer cutters **17** and spacer members **30** are

recpectively connected to the cutter head frame **40,** with the spacer member lugs **34** extending into the next adjacent outer cutter apertures **27,** the protrusions **85** on arms **83A** and **83B** are disposed in registry with, and extend into, the next adjacent outer cutter apertures **80.**

As shown in FIGS. **2, 7** and **8** each of the outer cutter wall portions **20** and **25,** longitudinally extends in the direction of the desired path of travel of the reciprocating inner cutter **50** associated therewith. In addition, the protrusions **85** extend from the resilient arms **83A** and **83B** and respectively contact spaced areas of the moving inner cutter side wall portions **52.** The arms **82A** and **83B,** via their respective protrusions **85,** urge the moving inner cutters **50** toward the outer cutter wall portions **20** and **25.** The inner cutters **50** are thus respectively urged in a direction which is transverse to the direction of movement of the inner cutters **50** within the outer cutters **17,** and transverse to the direction in which the springs **63** urge the inner cutters **50** to ensure sliding engagement between the cutter wall portions **51** and **18.** The arms **83A** and **83B** associated with each of the outer cutters **17** thereby resiliently urge one of the moving inner cutters **17** into sliding engagement with either an outer cutter side wall portion **20,** as shown in FIG. **7,** or an outer cutter channel wall portion **25,** as shown in FIG. **8.** Since both of the aforesaid wall portions, **20** and **25,** extend in the desired direction of movement of the inner cutter **50** associated therewith, both wall portions, **20** and **25,** are adapted to directly guide the associated moving inner cutter **50** in its predetermined path of travel. In accordance with the invention the resilient means **82** thus cooperates with the inner cutter **50** and either of two non-hair shearing, depending, outer cutter wall portions, **20** or **25,** i.e., either a channel wall portion **25** or the side wall portion **20** opposite the outer cutter aperture **80,** to substantially prevent side to side transverse movement of a given moving inner cutter **50** within the outer cutter **17** associated therewith.

As shown in FIG. **2,** only one of the side wall portions **20** of each of the outer cutters **17** is provided with apertures **80.** On the other hand, both of the spacer members **30** are provided with resilient arms **83A** and **83B.** As a result, the arms **83B** of both spacer members **30,** and the arms **83A** of the right hand spacer member **30,** extend into apertures **80** in the adjacent cutter wall portions **20,** whereas the arms **83A** of the left hand spacer member **30** cannot extend into the centrally disposed outer cutter's left side wall portion **20.** Nor is it desirable that they do so, since both side wall portions **52** of the centrally disposed inner cutter **50** would then be resiliently supported, and reciprocating movement of the centrally disposed inner cutter **50** would not be stabilized in accordance with the invention. Further, as shown in FIGS. **4–6,** the spacer member apertures **81,** from which arms **83A** and **83B** extend, are dimensioned such that the arms **83A** and **83B,** including the protrusions **85** thereof, can be respectively urged toward and completely within the aperture **81** associated therewith. Accordingly, as shown in FIG. **2,** the resilient arms **82A** of the left hand spacer member **30** are disposed within the apertures **81** thereof, and do not prevent abutment of that spacer member's right side wall surface **32** with the centrally disposed outer cutter's left side wall portion **20.**

In accordance with the objects of the invention there has been described an improved cutter head including an outer cutter and an inner cutter adapted to be reciprocated within the outer cutter by means of a spring, wherein resilient means are provided for urging the inner cutter into sliding engagement with a wall portion of the outer cutter which extends in the direction of movement of the inner cutter within the outer cutter, to prevent side to side movement of the inner cutter within the outer cutter.

Inasmuch as certain changes may be made in the above described invention without departing from the spirit and scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted in an illustrative rather than limiting sense. And, it is intended that the following claims be interpreted to cover all the generic and specific features of the invention herein described.

What is claimed is:

1. A shaver cutter head comprising:

a. an outer cutter and an inner cutter, each of the cutters including a hair-shearing first wall portion, the inner cutter adapted to be mounted within the outer cutter and moved therewithin in a predetermined path of travel, the first wall portion of the mounted inner cutter being disposed to cooperate with the first wall portion of the outer cutter for shearing hair as the inner cutter is moved within the outer cutter;

b. the outer cutter including non-hair-shearing second and third wall portions, the second wall portion having an aperture formed therein and the third wall portion extending in the direction of said predetermined path of travel of the inner cutter; and

c. a member disposed adjacent to the second wall portion of the outer cutter, the member including resilient means extending through said aperture in the second wall portion of the outer cutter and being adapted to urge the moving inner cutter into sliding engagement with the third wall portion of the outer cutter, whereby said third wall portion directly guides the moving inner cutter in said predetermined path of travel.

2. The cutter head according to claim **1** including spring means connected to the inner cutter and adapted to resiliently urge the inner cutter in a first direction transverse to the direction of said predetermined path of travel of the moving inner cutter, and said resilient means being adapted to resiliently urge the moving inner cutter in a second direction which is transverse to both said first direction and the direction of said predetermined path of travel.

3. The cutter head according to claim **1** wherein said aperture in the second wall portion of the outer cutter includes two apertures spaced apart from one another, and said resilient means includes a pair of spaced resilient arms, one of said arms partially extending through one of said two apertures and the other arm extending partially through the other of said two apertures, said arms slidably contacting spaced areas of the moving inner cutter and being adapted to urge the moving inner cutter in a direction transverse to the direction of said predetermined path of travel thereof.

4. The cutter head according to claim **1,** wherein said inner and outer cutter respectively include an upper

wall portion and said outer cutter includes a pair of oppositely disposed side wall portions, said first wall portions of the inner and outer cutters respectively being the upper wall portions thereof, said second wall portion of the outer cutter being one of the side wall portions thereof, and said third wall portion of the outer cutter being the other side wall portion thereof.

5. The cutter head according to claim **1,** wherein said outer cutter includes a pair of oppositely disposed side wall portions, said second wall portion of the outer cutter being one of said side wall portions thereof, the first wall portion of the outer cutter including a channel formed inwardly of the outer cutter, said channel having a depending non-hair-shearing wall portion disposed between the side wall portions of the outer cutter, and said third wall portion of the outer cutter being the depending wall portion of said channel.

6. The cutter head according to claim **1** including a frame upon which a pair of outer cutters are mounted so as to position the first wall portions thereof in hair-shearing relationship with a shaver user's skin and to position the apertured second wall portions thereof opposite one another, said member being an outer cutter spacer member mounted on the frame between said apertured second wall portions, said resilient means including spaced resilient arms, one of said arms extending into the aperture in one of said second wall portions, and the other arm extending into the aperture in the other second wall portion.

7. The cutter head according to claim **1** wherein said cutter head includes two of said outer cutters each including a side wall portion, the cutters being spaced apart from one another by said member such that the side wall portions thereof are disposed opposite one another, at least one of said side wall portions being an outer cutter second wall portion, said member including opposed side walls one of which abuts with one of said opposite outer cutter side wall portions and the other of which abuts with the other of said opposite side wall portions, said member having spaced apertures formed therein, said resilient means including spaced resilient arms, one of said arms extending outwardly from within each of said member apertures, said member's arms and apertures being respectively relatively dimensioned to allow the arms extending therefrom to be urged inwardly thereof to dispose said arms within said member, and at least one of said arms extending through the aperture in said at least one side wall.

8. The cutter head according to claim **1,** wherein said outer cutter is one of a plurality thereof, said inner cutter is one of a plurality thereof, each of said inner and outer cutters including one of said first wall portions, each of said outer cutters including one of each of said second and third wall portions, one of said apertures being formed in each of said second wall portions, each of said inner cutters being adapted to be mounted within each of the outer cutters and moved therewithin in a predetermined path of travel relative thereto, one of said members being disposed adjacent to the second wall portion of each of said outer cutters, and each of said members including resilient means extending therefrom and through at least one of said second wall portion apertures.

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