

UNITED STATES PATENT OFFICE

2,548,429

SHAVING BRUSH

James F. Fitzgerald, Detroit, Mich.

Application November 23, 1945, Serial No. 630,229

9 Claims. (Cl. 15-168)

1

This invention relates to shaving brushes, and has for its object the provision of a simple attachment whereby the bristle spread of a shaving brush may quickly and easily be varied to better adapt the brush to different conditions of use.

This and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawing, wherein:

Fig. 1 is a side elevational view of the improved brush with its bristles expanded in their normal manner.

Fig. 2 is a side view of the brush as seen transversely to the showing of Fig. 1.

Fig. 3 is an axial sectional view of the brush with its bristles under full compression, the section being taken on the line 3-3 of Fig. 2.

Fig. 4 is a view similar to Fig. 3 but showing the bristles under compression at one side only.

Fig. 5 is a cross sectional view taken on the line 5-5 of Fig. 1.

Fig. 6 is a cross sectional view taken on the line 6-6 of Fig. 3.

In these views, the reference character 1 designates the handle and 2 the bristles of a shaving brush. These are in most respects of ordinary construction, the handle having the usual terminal socket 3 wherein the bristles are inserted and retained. The handle, however, departs from prior practice in that its bristle-mounting end portion (comprising preferably about one half the handle length) is frusto-conical, diminishing progressively in diameter, as indicated at 4, toward the mouth of the socket 3. Rotatively fitted over the cylindrical outer portion of the handle is a tubular shell 5 integrally formed at one of its ends with a head seating against the larger end of the handle and centrally secured to the latter by a screw 6 or the like. Said shell is open at its other end which is located approximately midway of the bristle length. At opposite sides of the portion 4 of the handle, said shell is formed with openings 7, and extending from the open end of the shell are two openings 8 which are opposed in a transverse direction to the openings 7. A strip of spring sheet metal 9, normally of inverted U shape, straddles the headed end portion of the shell and its arms 9a are inwardly offset, as indicated at 10, at each side of the base of the frusto-conical handle portion 4, the offsets being disposed in the upper end portions of the openings 7, whereby the arms 9a extend across said openings and normally bear against the inner face of the open end portion of the shell, being outwardly sprung to urge them to

2

such position. Within the shell in proximity to its open end, the arms carry spring jaws 11 for compressing the bristles. These are strips of light sheet metal, secured at their mid points to the arms and extending normally in approximate arcs centered at the brush axis. To the outer face of each jaw 10 are secured three metal blocks 12, preferably rectangular, two of these being on the end portions of each jaw and the other on its mid portion between the jaw and its supporting arm. These blocks do not materially interfere with curvature of the jaws about the brush axis nor do they prevent substantial straightening of the jaws as per Fig. 6. Such straightening brings the blocks into end-to-end engagement to prevent any reverse flexure of the jaws responsive to their pressure against the bristles. The primary purpose of the openings 7 is to permit applying the pressure of a finger and thumb to the arms 9a to flex them inwardly, and it is preferred to affix, as by spot welding, presser plates 13 to the arms in registration with said openings. In the circumferential zone of the openings 7 but in an opposed relation transverse to that of said openings, the shell is formed with a pair of struck-out ribs 14, useful when it is desired to actuate only one of the jaws 11, as in Fig. 4. Either of said ribs may serve as an abutment for a finger or thumb, in applying pressure to either plate 13.

In use of the described brush, compression of the bristles is only desirable in applying lather to certain areas, as the lips, areas adjacent to the ears, and the back of the neck. Compression reduces and elongates the contact surface of the bristles, and gives it parallel sides. It thus becomes considerably easier to apply lather to the hirsute surfaces of the lips without daubing the mouth portion of the lips or introducing lather in the nostrils. Also the ears may be more readily left untouched in applying lather closely adjacent thereto when the bristles are compressed. It is evident that the lather may be more readily confined to any definite small area when the bristles are compressed. Very commonly barbers use their fingers to compress the bristles in applying lather and time is then lost in drying the fingers. My improved brush is particularly (but not exclusively) suited to barbers' use, permitting them to keep their fingers dry. The shell 5, moreover, tends to keep lather from working up on the handle, making it slippery and wetting the hand holding the brush. Whether pressure is applied to one or both sides of the bristles is

a matter of individual choice, some preferring a full and others a partial compression.

The rotative mounting of the attachment is important in preventing excessive wear of the bristles at their points of engagement by the jaws, such points being readily rotatively varied, when desired. Equipping the spring jaws with the described reinforcing blocks 12, assures a rectilinear form for the jaws when applying pressure while permitting them to substantially conform to the shell curvature and thus clear the bristles, when not in use.

What I claim is:

1. A brush comprising a handle, a set of bristles carried by the handle and flexibly projecting therefrom, a pair of arms projecting from the handle at opposite sides of the bristles and flexible to and from the bristles, and jaws carried by and oppositely laterally projecting from said arms and engageable with the bristles approximately midway of the flexible bristle length to compress substantially all of the bristles by flexure of said arms.
2. A brush comprising a handle, a set of bristles flexibly projecting from the handle, a shell carried by the handle and projecting therefrom in a surrounding relation to the secured end portions of the bristles, a pair of arms within said shell projecting beyond the handle in the direction of the bristles and flexible to and from the bristles, and a pair of jaws on said arms at opposite sides of the flexible portion of the bristles for compressing such portion through flexure of the arms, said shell having opposed openings giving access to the arms, and means for retaining said arms in their specified operative relation to the handle and shell.
3. A brush as set forth in claim 2, said arms being normally sprung outwardly against said shell.
4. In a brush as set forth in claim 2, enlargements carried by said arms in registration with said openings, for actuation of the arms.
5. A brush comprising a handle, a set of bristles flexibly projecting from the handle, a shell carried by the handle and projecting therefrom in a surrounding relation to the secured end portions of the bristles, and means carried by and within said shell to compressively engage opposite sides of the flexible portions of the bristles, said shell having opposed openings affording an expansion of the bristles in a direction transverse to the applied compression.
6. A brush comprising a handle, a set of bristles flexibly projecting from the handle, a spring arm projecting from the handle in substantially the same direction as the bristles and normally outwardly sprung to relieve the bristles of material pressure, and having a terminal enlargement in normal proximity to the bristles approximately

midway of the flexible bristle length, said bristle set presenting a curved surface to the enlargement and such enlargement being normally curved to opposite sides of the arm to conform substantially to said curved surface of the bristle set and being flexible to afford it a decrease of curvature when pressed against the bristles, said arm being inwardly flexible to subject the bristles to pressure of said enlargement and thereby alter the shape of the free end portion of the set of bristles.

7. A brush as set forth in claim 6, the bristle set normally having a circular cross section, and said curvature of the enlargement normally conforming to the circular peripheral curvature of the bristle set.

8. A brush comprising a handle, a set of bristles flexibly projecting from the handle, a spring arm projecting from the handle in substantially the same direction as the bristles and normally outwardly sprung to relieve the bristles of material pressure, and having a terminal enlargement in normal proximity to the bristles, approximately midway of the flexible bristle length, said arm being inwardly flexible to subject the bristles to pressure of said enlargement and thereby alter the shape of the free ends of the bristles, a shell fitted on the brush and rotatable about the longitudinal axis of the brush and carrying said arm, said shell having a portion disposed outwardly from said arm and limiting outward flexure of the arm.

9. A brush comprising a handle, a set of bristles flexibly projecting from the handle, a spring arm bodily rotatable about the longitudinal axis of the brush and projecting from the handle in substantially the same direction as the bristles and normally outwardly sprung to relieve the bristles of material pressure and having a terminal enlargement in normal proximity to the bristle length, said arm being inwardly flexible to subject the bristles to pressure of said enlargement and thereby alter the shape of the bristle set.

JAMES F. FITZGERALD.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
345,666	Bradford	July 20, 1886
890,348	Felix	June 9, 1908
1,320,092	Rieflin	Oct. 28, 1919
1,538,279	Faucon	May 19, 1925
2,240,547	Buddish	May 6, 1941

FOREIGN PATENTS

Number	Country	Date
320,054	Germany	Apr. 13, 1920