Oct. 11, 1949. C. C. RENNECAMP ET AL 2,484,313

BOB PIN OPENER

Filed April 17, 1947

FIG. 1

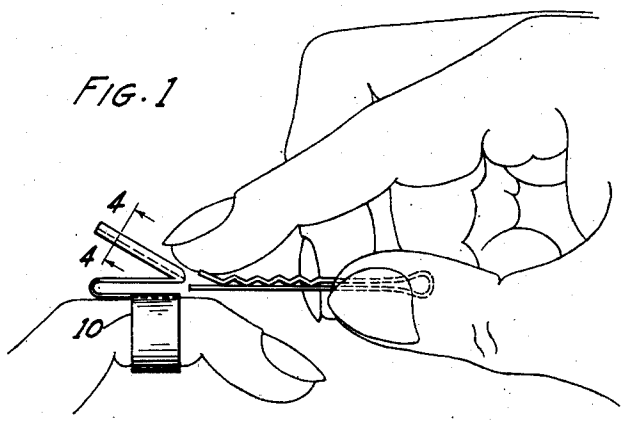


FIG. 2

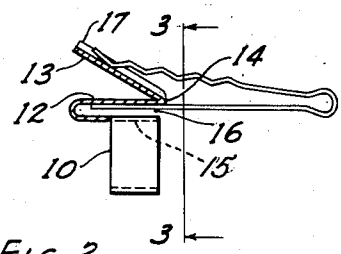


FIG. 3

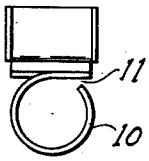


FIG. 4

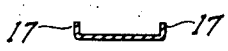


FIG. 5

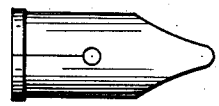


FIG. 6

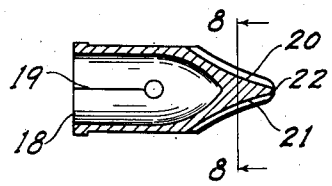


FIG. 7

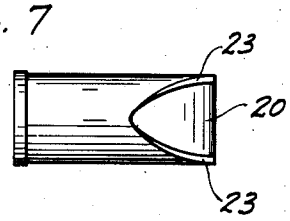
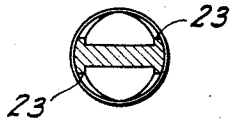


FIG. 8



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BOB PIN OPENER

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9 Claims. (Cl. 132—1)

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This invention relates generally to hair dressing devices and more particularly to a device for opening or spreading the open ends of elastic hair holding pins, commonly known as bob pins, preparatory to their application to a lock of hair.

In dressing the hair with the use of bob pins one hand is usually engaged in holding the hair in the desired position while applying the holding pin. This necessitates the opening of the bob pin with one hand, which has been found to be extremely difficult without the aid of some other means.

To overcome this difficulty, a very obvious and yet a very objectionable expedient is resorted to by almost all users of this type of elastic hair pin. This expedient being the teeth. Obviously this practice is highly undesirable, being unsanitary and quite likely harmful to tooth enamel.

The present invention has for its primary object the provision of a device having a pair of surfaces converging to a relatively thin edge, which edge is adapted to be entered between the legs of a bob pin and which device is arranged to be carried on a finger of one hand in such manner that the edge may be conveniently presented for the opening and spreading, by wedge action, of the legs of a bob pin grasped in the other hand.

A further object of the present invention is to provide a device of this character formed from a single sheet, having a wedge portion for spreading the open ends of a bob pin and a ring portion for mounting on a finger of the hand.

A further object of the present invention is to provide a device of this character having a wedge portion in which the diverging surfaces are provided with side flanges to prevent the bob pin from slipping off of the surfaces sidewise as the legs thereof are forced along these surfaces.

A further object of the present invention is to provide a device of this character having a wedge portion and having a closed end hollow cylindrical portion for mounting on the end of a finger, thimble-like.

Other objects and advantages will appear upon perusal of the following description, and reference to the accompanying drawings, referring to the drawings:

Fig. 1 illustrates the proper use of the present invention and includes a side elevation of one modification;

Fig. 2 is a side elevation of the same modification shown in Fig. 1, but with parts broken away, shown in connection with a bob pin;

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Fig. 3 is a front view of the device shown in Figs. 1 and 2, taken on line 3—3 of Fig. 2;

Fig. 4 is a cross section taken on line 4—4 of Fig. 1;

Fig. 5 is a side elevation of a second form of the present invention;

Fig. 6 is a longitudinal cross section of the device shown in Fig. 5;

Fig. 7 is a top view of the device shown in Figs. 5 and 6;

Fig. 8 is a transverse sectional view taken on line 8—8 of Fig. 6.

The form of the present invention shown in Figs. 1 to 4 is well adapted to fabrication by forming from a single sheet of metal, plastic or other suitable material. It is provided with a ring portion, indicated at 10, adapted to fit a finger. Ring portion 10 is open at 11 to permit adaptation to various sized fingers by reason of the flexibility of the material. Above the ring portion 10, are portions 12 and 13 converging toward the front and meeting in a slightly rounded edge 14 to form a wedge. Portions 12 and 13 are connected to the ring portion 10, by a portion 15, extending rearwardly therefrom. A space 16 between the top of the ring 10 and portion 12 is provided to permit entry of one leg of the bob pin.

Extending the full length of portion 12 and on both sides thereof are formed flanges 17, provided to prevent the slipping off sidewise of the bob pin when the open ends are forced along the surfaces of the wedge.

The form of the present invention shown in Figs. 5 to 8 is arranged to be carried on the end joint of the finger, thimble-like. It is generally cylindrical in shape and well adapted to casting in plastics. However, it may be made of any suitable material and by any suitable process. The cylinder is provided with a cavity or bore 18 opening at the rear and adapted to fit a finger. To provide for adaptation to various sized fingers the wall of the cylinder is slit longitudinally as indicated at 19. The number of slits 19 required will depend upon the flexibility of the material and thickness of the wall.

The forward solid portion of the cylinder is sliced off on opposite sides at similar angles to the axis to provide the converging surfaces 20 and 21, which meet in a slightly rounded edge 22. Surfaces 20 and 21 are also provided with flanges 23, to prevent the slipping off laterally of the bob pin as it is forced along the surfaces. While the included angle between the wedge surfaces is not critical, we have found that an in-

cluded angle of approximately 30 degrees provides for easy operation without excessive longitudinal travel. The surfaces may also be arcuate as 21 and 22 in Fig. 6. This provides for easy starting while giving sufficient total spread of the bob pin without excessive longitudinal travel.

Operation

In the use of either described form, the device is mounted on the little finger of one hand. Inasmuch as the little finger is not used in the forming or holding of the lock of hair to be pinned, it is available to carry and position the device for use without interfering with manipulation or holding of the hair with that hand.

With the bob pin grasped between the thumb and second finger of the other hand, with the upturned and kinked leg of the pin on top, and with the first finger resting on this leg and extending slightly beyond the end thereof, as shown in Fig. 1, the bob pin can be opened easily without visual guidance. The first finger, extending slightly beyond the leg of the pin easily locates the edge of the wedge and steers the open end of the pin into proper engagement therewith.

We have found that with the use of our invention and the method of use described, bob pins can be quickly and conveniently opened when the hands are out of the line of vision.

While we have described preferred embodiments of our invention it is obviously subject to many variations and it is to be understood that exclusive use of all modifications within the scope of the appended claims is contemplated.

We claim:

1. A device of the kind described comprising an elongated body having a rear and front end, a longitudinal bore opening at the rear end thereof and adapted to receive a finger of the hand for thimble-like mounting and a wedge at the front end thereof comprising a flat transverse forward edge, and opposite wedge surfaces diverging longitudinally from said edge toward the rear end, said surfaces being continuously flat transversely between their sides throughout their lengths.

2. A device of the kind described comprising an elongated body having a rear and front end, a longitudinal bore at the rear end thereof adapted to receive a finger of the hand for thimble-like mounting, a flat transverse edge at the front end thereof, and transversely flat surfaces substantially parallel with said edge and diverging longitudinally therefrom toward the rear end, both of said diverging surfaces having guide flanges extending along both sides thereof.

3. A bob pin opening device comprising an elongated body having a longitudinal bore therein open at one end and adapted to receive a finger thimble like, and a wedge portion formed at the other end thereof having a transverse forward edge, and opposite wedge surfaces diverging therefrom on opposite sides of said body toward said open end at an increasing rate, said surfaces being continuously flat transversely between their sides throughout their lengths.

4. A bob pin opening device comprising a hollow cylinder having one open end and being adapted to receive a finger thimble like, a slit in the wall of said cylinder extending longitudinally from said open end to permit expansion, said cylinder

having opposite and longitudinally curved surfaces converging toward its other end and meeting in a relatively thin transverse edge, and flanges extending longitudinally on both sides of both of said surfaces.

5. A bob pin opening device comprising a finger mounting portion having a bore therein adapted to receive a finger, and a wedge portion in fixed relationship to said mounting portion, said wedge portion having opposite wedge surfaces converging longitudinally of said bore at a decreasing rate and meeting in an edge transverse to said bore, said wedge surfaces being continuously flat transversely between their sides throughout their lengths.

6. A bob pin opening device comprising a finger mounting portion, and a wedge portion in fixed relationship to said mounting portion, said wedge portion comprising a pair of opposite surfaces converging arcuately at a decreasing rate to a relatively thin transverse edge, said wedge surfaces being continuously flat transversely between their sides throughout their lengths.

7. A bob pin opening device comprising an elongated body having a longitudinal bore therein opening at one end and adapted to receive a finger thimble-like, and a wedge portion formed at the other end thereof having a transverse forward edge, and having opposite wedge surfaces diverging therefrom toward said open end at an increasing rate, said opposed wedge surfaces having a transverse configuration extending continuously throughout their lengths such as as to provide a wedge which is thinner at the center than at its sides.

8. A bob pin opening device comprising a finger mounting portion having a bore therein adapted to receive a finger of the hand, and a wedge portion in fixed relationship to said mounting portion, said wedge portion having opposite wedge surfaces converging longitudinally of said bore and arcuately at a decreasing rate and meeting in an edge transverse to said bore, said wedge surfaces having a transverse configuration extending continuously throughout their lengths such as to provide a wedge which is thinner at the center than at its sides.

9. A bob pin opening device comprising a finger mounting portion, and a wedge portion in fixed relationship to said mounting portion, said wedge portion comprising a pair of opposite surfaces converging at a decreasing rate to a relatively thin edge, said wedge surfaces having a transverse configuration throughout their lengths such as to provide a wedge which is thinner at its center than at its sides.

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