March 11, 1958 A. L. OATES 2,826,050

INTERNALLY MOUNTED AND CONCEALED RING STABILIZER

Filed June 6, 1952

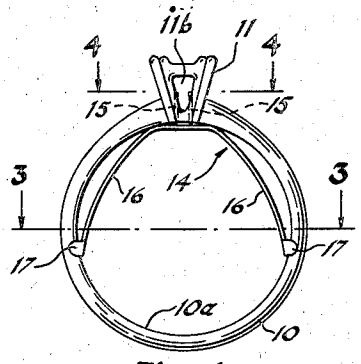


Fig. 1

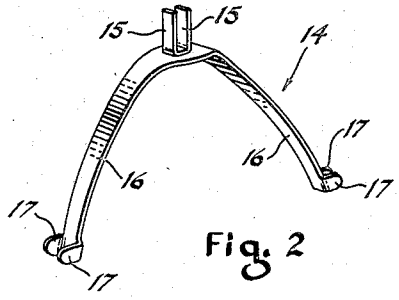


Fig. 2

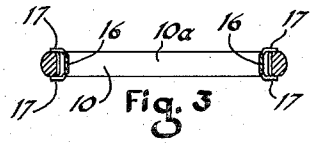


Fig. 3

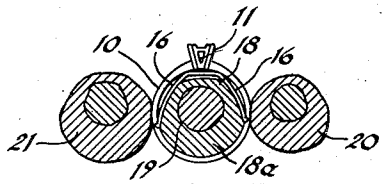


Fig. 5

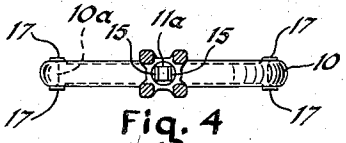


Fig. 4

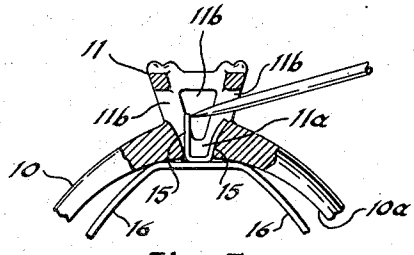


Fig. 7

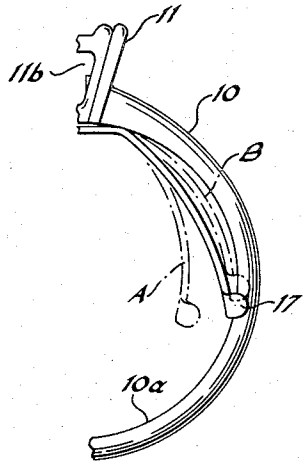


Fig. 6

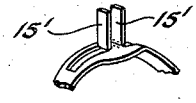


Fig. 8

INVENTOR.
Arden L. Oates

BY

Hyde, Meyer, Baldwin & Doran

ATTORNEYS

United States Patent Office 2,826,050 Patented Mar. 11, 1958

2,826,050

INTERNALLY MOUNTED AND CONCEALED RING STABILIZER

Arden L. Oates, Upper Sandusky, Ohio

Application June 6, 1952, Serial No. 292,057

2 Claims. (Cl. 63—15.6)

This invention relates to improvements in jewelry and more particularly to a ring stabilizer.

One of the objects of the present invention is to provide a ring stabilizer easily secured to a conventional ring for preventing twisting, turning and slipping of said ring on the ring finger.

Another object of the present invention is to provide a ring stabilizer that is relatively inconspicuous when the ring is properly positioned on the ring finger.

Another object of the present invention is to provide a ring stabilizer easily attached to a ring having a stone setting without modifying the construction of the ring in any manner.

Another object of the present invention is to provide a ring stabilizer having no tendency to scratch the ring band.

Another object of the present invention is to provide a ring stabilizer inexpensive to manufacture, having structural simplicity, and being readily assembled with a conventional ring.

Other features of this invention reside in the arrangement and design of the parts for carrying out their appropriate functions.

Other objects and advantages of this invention will be apparent from the accompanying drawings and description and the essential features will be set forth in the appended claims.

In the drawings,

Fig. 1 is a side elevational view of a conventional ring having a setting thereon with said ring having the ring stabilizer secured thereto;

Fig. 2 is a perspective view of one form of ring stabilizer;

Fig. 3 is a horizontal sectional view taken along the line 3—3 of Fig. 1 through the ring stabilizer legs and the ring band along approximately the horizontal diameter of the ring bore;

Fig. 4 is a horizontal sectional view taken along the line 4—4 through the ring setting;

Fig. 5 is a vertical sectional view through the ring finger of the hand of a user, and the fingers adjacent thereto, showing the ring and ring stabilizer in side elevational view;

Fig. 6 is an enlarged view of the right half of Fig. 1 showing the right leg of the stabilizer in several positions by the solid line and dot-dash line positions therein;

Fig. 7 is an enlarged view in vertical transverse cross section of the ring setting shown in Fig. 1 with the upwardly extending arms of the ring stabilizer being bent outwardly to conform with the hole in the ring setting; while

Fig. 8 is a perspective view of the upper portion of the ring stabilizer shown in Fig. 2 but with another form of upwardly extending arms.

Those familiar with this art will recognize that this invention in a ring stabilizer may be applied in many ways, but I have chosen to illustrate the same in connection with a ring having a setting for a precious stone, wherein said ring is of the conventional type.

This ring stabilizer prevents the ring from twisting, turning and slipping while on the ring finger, but at the same time, the ring stabilizer is inconspicuous and does not form an unsightly appurtenance to the ring since it is not readily seen from either above or below the hand when the fingers are in their normal position.

The conventional ring is shown in Fig. 1 by the reference numeral **10** and has a bore **10***a* within the surrounding ring band. A setting **11** is formed on the upper end of the band for mounting a diamond or other type precious stone on the ring. The setting **11** has a hole **11***a* extending radially from the base of the setting into the bore **10***a* and enlarging in the outwardly extending direction. Other holes **11***b* extend inwardly from the side of the setting and connect with the radially extending hole **11***a*. These holes are provided so that the stone can be properly mounted in the setting and so that any foreign substance, such as dirt, will not tend to collect under the stone to reduce its luster.

The subject of the present invention, the ring stabilizer, is shown generally at **14**. It includes means intermediate the ends of the stabilizer in Fig. 2 for non-rotatably mounting the stabilizer in the ring bore **10***a*, as shown in Fig. 1. This means takes the form of a U-shaped member brazed to the rest of the stabilizer and having upwardly and outwardly extending or projecting spaced arms **15, 15** insertable into the hole **11***a* to prevent relative rotation between the ring stabilizer **14** and the ring **10** in the plane of the ring.

Means is provided on the stabilizer for resiliently engaging the ring finger for preventing slipping and twisting of the ring **10** thereon. In the present disclosure, this takes the form of generally diverging resilient legs **16, 16** joined together at their upper ends below the arms **15, 15**. The legs **16, 16** can either be formed of a solid piece of material bent to conform generally to the ring bore **10***a*, as in the present disclosure, or of two separate members suitably secured together. Each leg approximately forms a chord across the bore **10***a* when in its unstressed condition, as shown in Fig. 1. The legs **16, 16**, extending away from the arms **15, 15** in opposite directions, lie wholly within the bore **10***a* since they are preferably narrower in width at all portions along their length than corresponding portions of the ring band surrounding said bore. Each leg, lying within the bore, forms an outwardly convex curve having a greater radius at each portion along its length than corresponding portions of the bore **10***a*, as clearly shown in Fig. 1. Of course, this invention contemplates that legs **16** may conform with and/or bear against the bore **10***a* at some portions along its length while having other portions differing in radius therefrom and adapted to press again the ring finger.

Slidable anchor means is provided at the distal ends of each leg slidable in the ring bore **10***a*. In the present disclosure, this takes the form of members **17, 17**, each being U-shaped in cross section with one located at the distal end of each leg **16**. These members **17, 17** slidably engage the bore **10***a* and the ring band side walls so that each leg **16** is anchored at opposite ends within the bore **10***a*. In other words, the structure at **17, 17** embraces the ring band on the inside.

With this construction, the ring stabilizer **14** readily prevents the ring from slipping, twisting or turning on the ring finger. Fig. 1 shows the ring stabilizer **14** in its unstressed condition while Fig. 5 shows the ring stabilizer and ring on the ring finger with the stabilizer firmly gripping the finger to prevent slipping, twisting or turning. When the ring is put on the ring finger, the resilient legs **16, 16** bow outwardly to permit the passage

of the ring finger through the ring bore 10*a*. However, since the legs 16, 16 have a normal tendency to return to their unstressed position, as shown in Fig. 1, they firmly press against the thin covering 18 over the bone 19 which lies close to the surface at the upper or outside portion of the ring finger. The ring stabilizer legs 16, 16 do not press against the soft thicker muscle and flesh 18*a* at the lower or inner part of the finger but instead press against the bone to prevent twisting, turning or slipping while urging the musicle at the lower part of the finger into firm engagement with the entire lower surface of the ring bore 10*a*.

It should be noted that the anchor members 17, 17 at the distal ends of the legs 16, 16 are located below the horizontal diameter through the ring bore 10*a* in both Figs. 1 and 5, which is shown in Fig. 1 by the section line 3—3. This structure has two advantages. First, arms 15, 15 need not be bent over to lock them within the hole 11*a* of the setting since the members 17, 17 and the legs 16, 16 firmly urge the arms 15, 15 up into the hole 11*a*. However, even though the ring stabilizer 14 is firmly secured in the ring bore 10*a*, the ring stabilizer can be easily removed by bending each leg 16 into the dot-dash position A in Fig. 6 to disassociate the member 17 from the ring band. Second, the legs 16, whether in their unstressed condition shown in Fig. 1 and in the solid line position shown in Fig. 6, or in their stressed position engaging the ring finger in Fig. 5 and in the dot-dash line position B in Fig. 6, always keep the members 17 below the horizontal diameter of bore 10*a*. Members 17, 17, when the ring 10 and the ring stabilizer 14 are on the ring finger, are located below the normal line of contact (but closely adjacent thereto) between the ring finger and the adjacent fingers thereto 20 and 21, as shown in Fig. 5, so that the members 17, 17 are always hidden from view from both above and below the hand when the fingers assume their normal side-by-side postion.

Fig. 8 discloses another form of construction wherein both the arms and the legs are formed from one sheet of metal bent to conform generally to the ring bore 10*a*. A pair of spaced arms 15', 15' in Fig. 8, similar to arms 15, 15 in Fig. 2, are die-cut from the metal strip forming the legs and are then bent upwardly and outwardly to form the projecting arms.

The spaced arms 15, 15 and 15', 15' in both embodiments shown in Figs. 2 and 8 may be used in several different ways. First, they may merely project upwardly through the hold 11*a* in the ring mounting but need not removably engage the sides of the holes since the members 17, 17 in their unstressed condition in Fig. 1 are below the horizontal and the resilient legs 16, 16 always urge the spaced arms upwardly into the hole 11*a*. This structure is ideally suited when the mounting 11 for the precious stone is very small and the hole 11*a* is correspondingly small such as in a mounting for small stones. Second, the spaced arms can also be resilient and have portions extending or diverging in the outwardly direction so that they can readily snap into the hole 11*a* having sides diverging in the outwardly direction. Third, the spaced arms can be formed of bendable material so as to be bent outwardly, as shown in Fig. 7, to conform to the outwardly diverging sides on the hole 11*a* on the ring mounting after the spaced arms have been inserted therein. A pin, as shown in Fig. 7, can be pushed through the holes 11*b* in the mounting for individually bending the spaced arms outwardly. If desired, the pin in Fig. 7 may have a hooked end for pulling each arm individually against its associated inclined side wall of hole 11*a* instead.

With the second and third construction mentioned above, the members 17, 17 need not be below the horizontal diameter of ring bore 10*a* since the spaced arms 15, 15 are firmly secured in the ring mounting hole 11*a*. However, it is more desirable to have them below the horizontal since then they will be obscured from view by the line of contact between the ring finger and the adjacent fingers thereto, as shown in Fig. 5.

It should now be apparent that the ring stabilizer 14, the subject of the present invention, prevents the ring 10 from twisting, turning or slipping on the ring finger. It is an inconspicuous appurtenance to the ring 10 not readily seen from above or below the hand when the fingers are in their normal position.

Various changes in details and arrangement of parts can be made by one skilled in the art without departing from the spirit of this invention or the scope of the appended claims.

What I claim is:

1. In combination, a ring and ring stabilizer, said ring having a bore therethrough adapted to telescope over a ring finger for mounting thereon, said ring having an outwardly extending hole in the surface of the bore so as to be located above the middle of the top surface of the ring finger, said hole enlarging in the outwardly extending direction; said ring stabilizer fitting in the bore of said ring and including outwardly projecting means located intermediate the ends of said stabilizer and inserted into said hole from said bore to prevent rotation of said stabilizer around said bore, a pair of generally diverging resilient legs connected together at one end and to one end of said projecting means, said legs extending away from said means in opposite directions approximately forming chords across said bore in unstressed condition, said legs resiliently engageable with the upper surface of the ring finger for preventing slipping and twisting thereon, and guide means at the distal end of each leg in said ring bore straddling the ring and urging said projecting means into said hole, both said guide means slidably engaging the ring bore and in unstressed condition located slightly below a horizontal diameter of said bore when said hole is centered above said ring finger so that the resiliency of said legs urges said projecting means upwardly into said bore with said guide means being located in position to be hidden by the normal line of contact between the ring finger and adjacent fingers thereto.

2. In combination, a ring and ring stabilizer, said ring having a bore therethrough adapted to telescope over a ring finger for mounting thereon, said ring having a setting with an outwardly extending through hole in the surface of the bore directly below said gem setting so as to be located above the middle of the top surface of the ring finger, said hole enlarging in the outwardly extending direction; said ring stabilizer fitting in the bore of said ring and including outwardly projecting spaced apart arms located intermediate the ends of said stabilizer and inserted into said hole from said bore to prevent rotation of said stabilizer around said bore, said arms being constructed so as to be bendable away from each other in said hole to detachably lock together said ring and ring stabilizer, a pair of generally diverging resilient legs formed by a continuous band connected at its mid-point to one end of said projecting arms, said legs extending away from said arms in opposite directions approximately forming chords across said bore in unstressed condition, said projection arms having a width less than said leg forming band at the connection therewith, each leg being of narrower width at each portion along its length than corresponding portions of said bore so as to be hidden in said ring bore, said legs resiliently engageable with the upper surface of the ring finger for preventing slipping and twisting thereon, and outwardly opening U-shaped guide means at the distal end of each leg in said ring bore straddling the ring and urging said projecting means arms into said hole, both said U-shaped guide means slidably engaging in the ring bore and in unstressed condition located slightly below a horizontal diameter of said bore when said setting hole is centered above said ring finger so that the resiliency of said legs urges said projecting arms upwardly into said bore with said guide means being

located in position to be hidden by the normal line of contact between the ring finger and adjacent fingers thereto.

References Cited in the file of this patent

UNITED STATES PATENTS

567,469	Griscom	Sept. 8, 1896
1,115,764	Applas	Nov. 3, 1914
1,278,047	Smith	Sept. 3, 1918
2,142,167	Zalkind	Jan. 3, 1939
2,184,942	McDonald	Dec. 26, 1939

FOREIGN PATENTS

553,631	France	Feb. 14, 1923
637,263	France	Apr. 26, 1928