United States Patent [19]

Strack

[11] **3,910,066**

[45] **Oct. 7, 1975**

[54] **RING HAVING RECESSED STONE SECURED BY PLASTIC MATERIAL THEREUNDER**

[76] Inventor: **John K. Strack,** 4427 E. 116th St., Carmel, Ind. 46032

[22] Filed: **Feb. 26, 1974**

[21] Appl. No.: **445,811**

[52] **U.S. Cl.** **63/15;** 63/26

[51] **Int. Cl.²** **A44C 17/02**

[58] **Field of Search** 63/26, 15

[56] **References Cited**

UNITED STATES PATENTS

222,580	12/1879	Fest	63/26 X
949,657	2/1910	Murrin	63/26
1,529,606	3/1925	O'Donnell	63/26 X
1,578,907	3/1926	Naumburg	63/26 X
1,754,964	4/1930	Pancoast	63/26 UX
2,756,572	7/1956	Yeager et al.	63/26

FOREIGN PATENTS OR APPLICATIONS

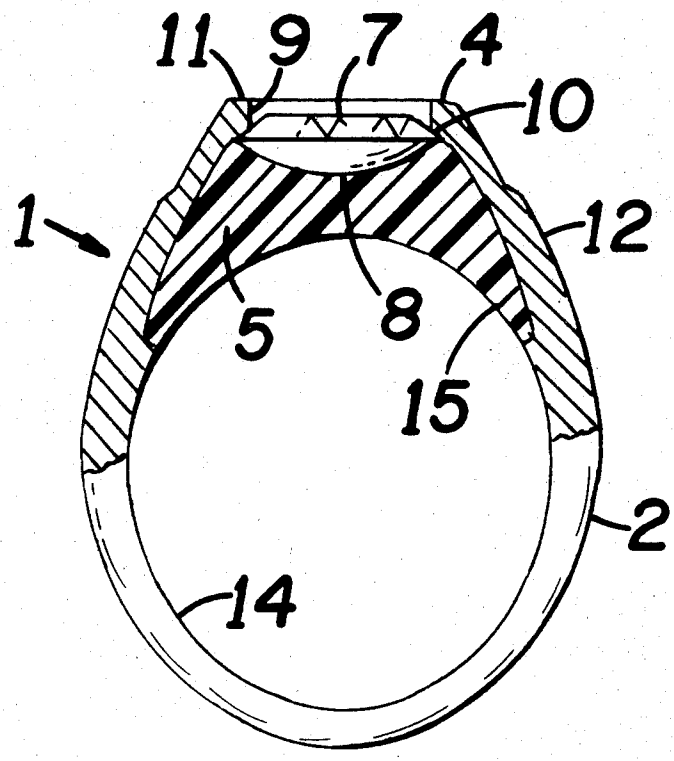
363,959	5/1906	France	63/26

Primary Examiner—F. Barry Shay

[57] **ABSTRACT**

The disclosed invention is an improved jewelry ring having the stone mounted and held in place with plastic or other suitable material.

1 Claim, 7 Drawing Figures



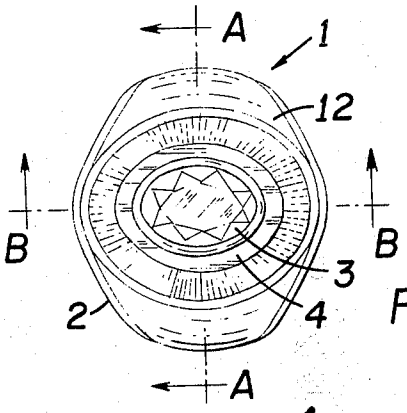


FIG. 1

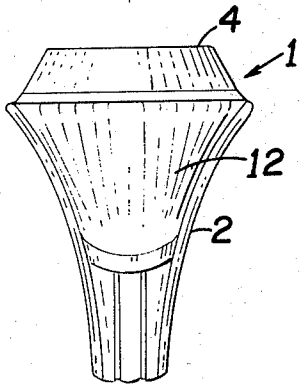


FIG. 2

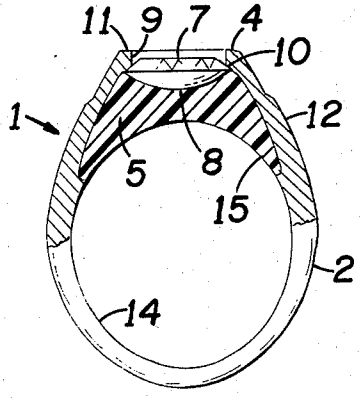


FIG. 3

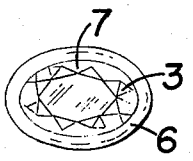


FIG. 4

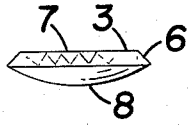


FIG. 5

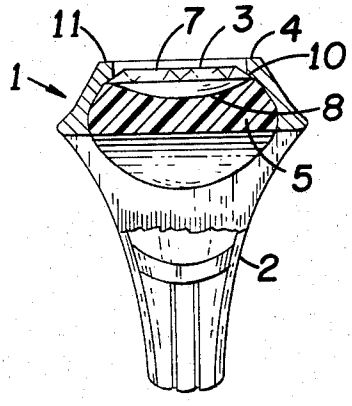


FIG. 6

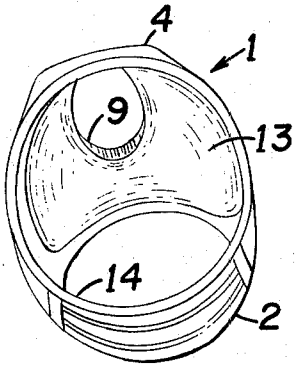


FIG. 7

RING HAVING RECESSED STONE SECURED BY PLASTIC MATERIAL THEREUNDER

The invention disclosed herein is an improved jewelry ring wherein the stone is mounted and held in place by a plastic or other suitable material. The device comprises a suitably shaped and contoured ring band having an opening therein to accommodate the mounting and setting of a conventional jewelry stone or stones which is held and secured in place by plastic or other appropriate material.

The new and unique jewelry ring disclosed herein, as envisioned by the inventor, has the stone of the ring set and mounted from the under side of an appropriate opening in the ring nearest the wearer's finger, with the stone held and secured in place by a plastic resin, or other suitable material, poured and moulded to adhere to the stone and the inner finger hole surface of the ring, so that such securing material is between the stone and the user's finger, all as will be more specifically shown by and obvious from the drawings and disclousure set forth hereinafter.

The presently used means of mounting a stone in a jewelry ring generally consists of either mounting and setting the stone inside a hole or indention in the top of the ring with the sides of the ring around the stone peened in against the stone to secure and hold it in place or mounting and setting the stone between prongs attached to the ring band with the prongs pressed or peened against the stone to secure and hold it in place. These means have the disadvantage of having the stone exposed above the general ring surface so that the stone can generally come into first contact with another object, which in turn may cause undesirable scaring, chipping or breakage of the stone.

It is, therefore, one object of this invention to provide a means to mount a stone in a jewelry ring so that the stone is protected by having it mounted and set so the top of the stone is nearer the wearer's finger than is the surrounding ring band component material.

Still another object of this invention is to provide an improved means for mounting and securing a stone in a jewelry ring without it having to be held in place by peening or mechanically forcing metal or material against the stone after it is mounted, which is an inefficient, laborous and hazardous means of mounting and setting of a stone in a ring.

Thus, another object of this invention is to provide a more economical means of mass producing jewelry rings having a stone setting.

A further object of this invention is to provide for mounting a stone in a jewelry ring and securing the same in place with a substance that is juxtapositioned against the underneath side of the stone to prevent dirt, moisture or other foreign matter from entering beneath the stone and reducing its brilliance or esthetic value.

It is still a further object of this invention to provide a means for mounting a stone in a jewelry ring to preserve and/or enhance the brilliance and reflectivity of the stone.

An additional object of this invention is to mount and secure a jewelry stone in a ring with a substance which can be poured and which adheres to both the stone and to the ring surface.

Another object is to provide a means of setting and mounting a jewelry stone that permits savings of precious metal in the ring band.

Another object of this invention is to provide a means for mounting a stone in a jewelry ring whereby the same is held in place by a component of the ring which has not been mechanically deformed to press the stone, and thus, provide a more secure and premanent means for the mounting of said stone.

These and other objectives and advantages of this invention will be readily apparent to those skilled in the art from the disclosure, drawings, specifications and claims presented herein.

DRAWINGS

FIG. 1 shown an overall plan view of the top of the jewelry ring with stone setting.

FIG. 2 is an overall side view of the FIG. 1 ring.

FIG. 3 is a cross-sectional view A—A of the FIG. 1 ring showing the stone mounting in the said ring.

FIG. 4 is an overall top plan view of a conventional stone used in jewelry ring mounting.

FIG. 5 is an overall side view of FIG. 4 stone.

FIG. 6 is a cross-sectional view B—B of the FIG. 1 ring showing the stone mounting.

FIG. 7 is an oblique underside view of the FIG. 1 ring without stone mounting showing the ring top opening with underneath cavity.

Referring to the FIG. 1. overall view, the subject jewelry ring shown as 1, consists of a band means 2 which is more clearly shown in FIGS. 2, 3, 6 and 7, a conventional jewelry stone 3, a means 4 for setting and mounting said stone, and a means 5, for securing said stone in place, as is more clearly shown in FIGS. 3 and 6.

The conventional jewelry stone 3, as more clearly shown in FIGS. 4 and 5 generally has a bevelled edge 6, a top surface 7 and a bottom surface 8, which may or may not be coated with any suitable conventional material to enhance the stone's brillance and/or to prevent the viewing of any dirt or foreign matter through the stone which may be underneath the stone.

As envisioned by the inventor, stone 3 is set by the placing of a portion of its top surface 7, generally the bevelled portion 6, up and against a portion the underside 10 of the said means 4 for setting and mounting through the underside opening 9 in the ring 1. Such mounting provides that the top of the stone 7 is generally below the surface 11 of the ring 1, as more clearly shown in FIGS. 3 and 6, which generally protects the stone from scratching, chipping or cracking. It is obvious that the stone could be, if desireable, set with its top surface any other desirable dimension with respect to the adjoining components of ring 1.

It is further obvious that ring 1 may have any suitable outside design or configuration 12, as may be desirable by the designer or user.

The stone 3 after being placed and set in ring 1 as described above is held mounted in place by said securing means 5, which may be any suitable plastic resin or other material. This securing means 5 is poured into an opening or cavity 13 in ring 1, as shown in FIG. 7, such that the same juxtapositioned against and adheres to both the underside 8 of the stone 3 and the ring 1 surface of cavity 13. Any excess material of securing means 5 which exists after it is poured into place may be either bored and/or ground and/or polished to generally match and make a smooth surface with the diameter of the ring 1 opening 14, as shown in FIG. 3.

Ring 1 may be fabricated, moulded or cast by any suitable conventional means. It is obvious that the ring

opening or cavity **13** may be of any suitable shape, configuration or dimension as may best suit the mounting of the particular stone **3** configuration being set and mounted. The cavity shown has a transverse dimension larger than its opening at the bottom end so that the shape of means **5** (see FIGS. **3** and **6**) is too large to pass through the bottom end of the cavity.

It is further obvious that the upper surface **11** of ring **1** means **4** used to accommodate the setting and mounting of stone **3** may be of any suitable configuration and may be ground, polished or shaped as desired by the ring designer.

It is further obvious that the stone **3** may be set with all or a portion of setting and mounting means **4** surface **10** juxtapositioned against any desired portion of the top or other surface of stone **3.** In addition, it is also obvious that the securing means **5** may have its inside surface **15,** as shown in FIG. **3,** poured, bored or ground to any desired or suitable configuration besides that described above.

It is also apparent that the foregoing device, and adaptations thereof, may be adapted for either right or left hand users without departing from the object and spirit of the invention.

It is also obvious to one skilled in the art that numerous other variations and adaptations may be made in the invention without departing from the object and spirit of the invention therefore, the invention is not intended to be limited to or by that illustrated or described herein.

What I claim is:

1. In a jewelry ring the combination of a ring band means, a first opening in said ring band means to accommodate the insertion of the user's finger, a second opening through said ring band means lateral to said first opening and forming a cavity to accommodate a jewelry stone, with the top portion of said opening which is remote from said first opening being smaller than the size of the bottom of said second opening which is nearest to said first opening, a jewelry stone mounted and recessed inside the top portion of said second opening, with the top of said stone shaped so as to be similar to, mate with and be mounted against a similarly shaped and sized inside surface of the top inside of said second opening which faces said first opening and with the outside dimension of the top of said stone being larger than the inside dimension of that portion of the said second opening against which it is mounted but smaller than the said bottom inside portion of said second opening, and, securing means consisting of plastic material poured into the said second opening under and against said stone so as to bond and adhere to the underside of said stone and a portion of the walls of the said second and first openings to secure said jewelry stone in its mounted position, said securing means filling said second opening beneath said stone and being formed by the walls of said cavity, said cavity having a transverse diameter larger than its opening at said bottom so that the shape of the formed securing means is too large to pass through said bottom, with that portion of said securing means which is nearest to said first opening contoured to match and form a part of the contour of the inside of said first opening which is sized to fit the user's finger.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,910,066 Dated October 7, 1975

Inventor(s) John K. Strack

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Cancel the figure on the illustrative page and insert the figure as shown on the attached sheet.

FORM PO-1050 (10-69)

USCOMM-DC 60376-P69
U.S. GOVERNMENT PRINTING OFFICE : 869-930

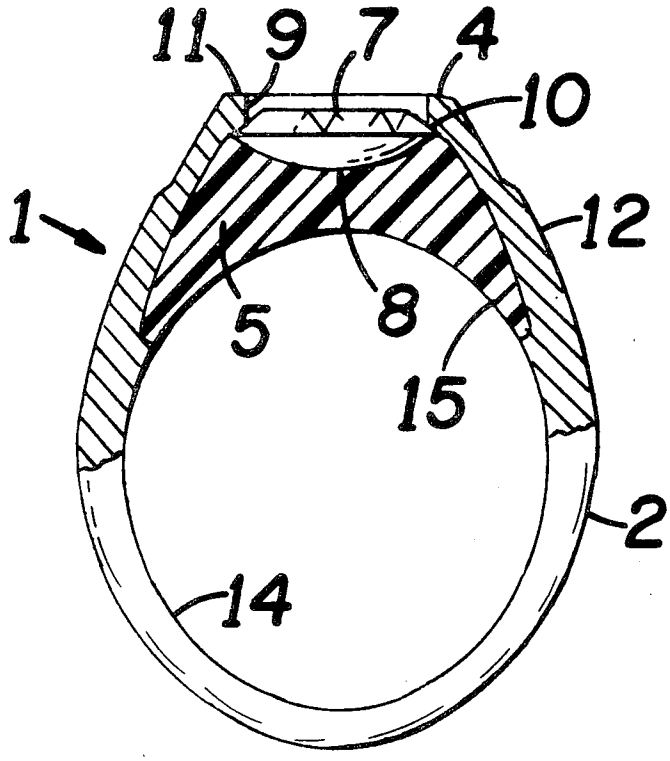
UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,910,066 Dated October 7, 1975

Inventor(s) John K. Strack

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:



Signed and Sealed this

sixth Day of April 1976

[SEAL]

Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents and Trademarks