United States Patent

Ricci

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[54] INTERCHANGEABLE SPHERICAL GEM SETTING AND A CORRESPONDING RING PROVIDED WITH SAID SETTING

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[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.** **63/29,** 63/15.5, D45/1, D45/10

[51] **Int. Cl.** **A44c 17/02**

[58] **Field of Search** .....63/29, 30; 24/81 CC, 249 SA; 240/108; D45/1, 10

[56] **References Cited**

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[57] **ABSTRACT**

This invention relates to an interchangeable spherical gem setting and a corresponding ring provided with said setting, which setting comprises two equal filiform circles of diameter less than that of the gem mutually inclined so as to form an angle such as to lock the gem contained between said two circles, which touch each other at the vertex of said angle, said circles being secured to the piece of jewellery in the proximity of said vertex, both the removability and retention of the gem being rendered possible by said juncture of the circles and by the elasticity of the material of which said circles are formed.

3 Claims, 3 Drawing Figures

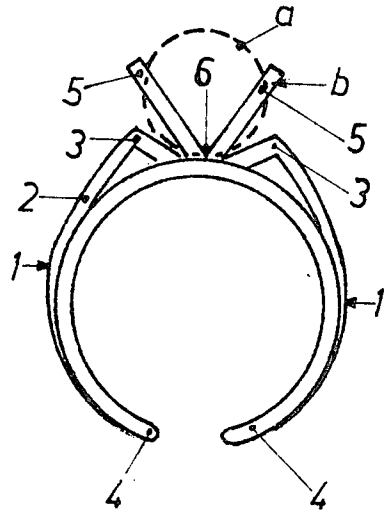


FIG. 1

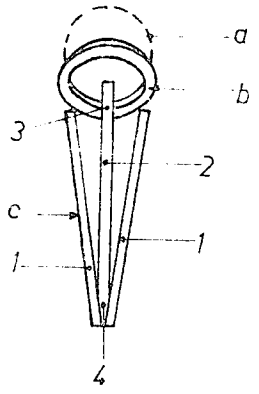


FIG. 2

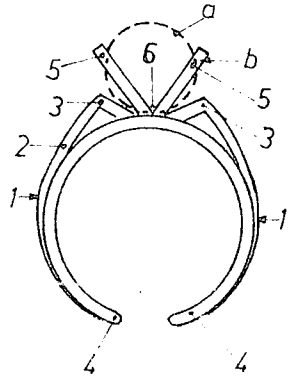
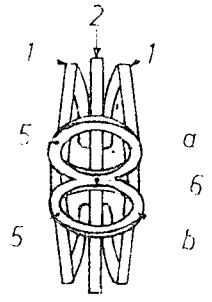


FIG. 3



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INTERCHANGEABLE SPHERICAL GEM SETTING AND A CORRESPONDING RING PROVIDED WITH SAID SETTING

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to an interchangeable spherical gem setting and a corresponding ring provided with said setting.

More precisely the invention relates to a setting which permits easy exchange of spherical gems which may be substituted for example by others of different color, said setting being able to be applied to any type of jewellery, from a ring to earrings, brooch or pendant.

2. Description of the Prior Art

At the present time certain types of settings are known which allow interchange of gems, but in general they concern systems which while they may succeed in offering a certain guarantee as regards safety of the anchorage, they obtain this by sacrificing practicality and facility of extraction and application of the gem, because of which it can be said in conclusion that the exchange of the gem is an operation which is only theoretically possible and of no practical application.

SUMMARY OF THE INVENTION

An object of this invention is to render the operation of spherical gem exchange truly easy and immediate, and at the same time to offer maximum reliability of gem retention.

A further object of the invention is to provide a setting of simple construction, while ensuring retention of the gem.

The present invention consists by the spherical gem setting which comprises two equal filiform circles of diameter less than that of the gem, mutually inclined so as to form an angle such as to lock the gem contained between said two circles which touch each other at the vertex of said angle, said circles being secured to the piece of jewellery in the proximity of said vertex, both the removability and retention of the gem being rendered possible by said juncture of the circles and by the elasticity of the material of which said circles are formed.

The angle formed by the two circles has a value preferably between 65° and 70°.

The section of the filiform element of which the circles are made may take various forms, but for preference has sharp edges and in particular is square or rectangular, so that the force due to deformation of the circles is transmitted from the edges and is concentrated into the gem, so improving conditions for retention of said gem.

BRIEF DESCRIPTION OF THE DRAWING

The invention will now be described in detail with reference to one embodiment relative to a ring illustrated by way of example in the accompanying drawing in which:

FIG. 1 is a lateral view of the ring;

FIG. 2 is an axial view of said ring;

FIG. 3 is a frontal view of the ring on the side of the setting.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the accompanying drawing, the reference letter *a* indicates an interchangeable gem of any type *b* the setting according to the invention and *c* indicates the ring. The ring *c* is formed from three filiform members, of which the two lateral members 1—1 are circular, while the central member 2 comprises cusps 3 at its top close to the setting zone. The contained planes of the three members progressively converge until they coincide at 4, in the zone opposite to that of the setting.

The setting *b* comprises two metallic circles 5 of square wire arranged with their contained planes at an angle of about 65°–70 and touching each other at their base at the point 6, where they are secured together, each being also secured to the central element 2. In this way the two circles 5 conserve maximum possibility of varying the angle formed between them, or at least the position of the free zones of the two circles (opposite to the zone of mutual fixing), and as they are elastic they can exert the necessary pressure for holding the gem in place.

The spherical gem *a*, illustrated by the broken line, can thus be easily mounted by pushing it lightly with the fingers from above downwards between the two circles 5. In order to exchange the gem *a* it is sufficient to insert the point of a stem-like object an its base, that is at the intersection 6 of the two circles 5, in order to disengage said gem.

As mentioned, the section of the filiform element of which the two circles are constituted should for preference have sharp edges and if possible be square. By this means the pressure exerted by said circles is concentrated onto the spherical gem, with a consequently considerable increase in its specific value and the consequent possibility of developing a force of attrition along the two circumferences of contact which is proportionally high, and therefore capable of better stabilizing said gem in its setting.

The setting as described is thus extremely simple, and consequently of economical construction and large functionality especially for the operation of gem exchange.

What I claim is:

1. In combination, setting means for removably interchangeably receiving a spherical gem, ring means for disengageably engaging a wearer's finger, and means permanently anchoring said setting means to said ring means, said setting means comprising two equal filiform circles composed of elastic material, said circles having an inner diameter smaller than the major diameter of the gem, said circles being mutually relatively inclined and forming between them an acute angle of about 60° to 70° at the vertex of said angle where the circles touch each other, means securing the circles to each other at their point of contact, said angle being such that when the spherical gem is received in said setting it will be contained between said two circles and gripped and retained therein, said circles touching each other at the vertex of said acute angle, said anchoring means constituting means securing said circles to the ring means adjacent said vertex, the removability and retention of the spherical gem being rendered possible by the ability of the circles of elastic material to be spread apart as springs about said anchoring means to permit entry of the gem between the circles and the subsequent return biasing pressure of the circles against the gem.

2. A combination as set forth in claim 1 wherein the ring means comprises three filiform members of which two are outer members and the third is an intermediate member, the two outer members being circular, the intermediate member including cusps in the proximity of the setting means, the contained planes between the two outer members and the intermediate member progressively converging in a direction away from the setting means to a zone of intersection opposite to the setting means.

3. In combination, setting means for removably interchangeably receiving a spherical gem, ring means, and means permanently connecting said setting means to said ring means, said setting means comprising two equal filiform circles composed of elastic material, said circles having an inner diameter smaller than the major diameter of the gem, said circles being mutually relatively inclined and forming between them an acute angle such that when a spherical gem is received in said setting it will be locked therein and contained between said two circles, said circles touching each other at the vertex of said acute angle, said means permanently connecting said setting means to said ring means constituting means securing said circles to the ring means adjacent said vertex, the removability and retention of the spherical gem being rendered possible by the ability of the circles of elastic material to be spread apart as springs to permit entry of the gem between the circles and the subsequent return biasing pressure of the circles against the gem, the transverse sections of the two equal filiform circles having sharp edges adapted to contact the spherical gem thereby concentrating the pressure exerted thereagainst.