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GEM HOLDER

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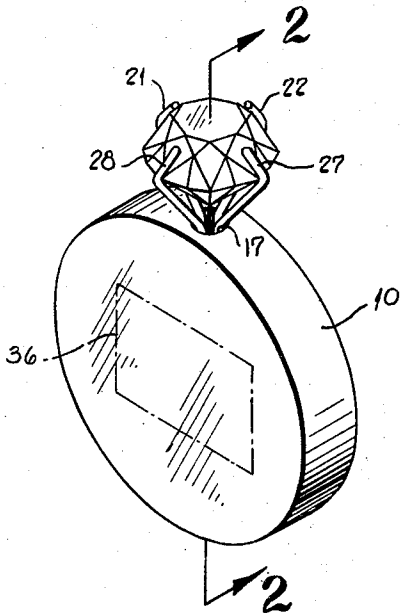


Fig-1

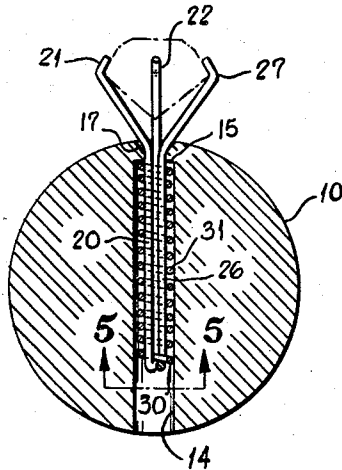


Fig-2

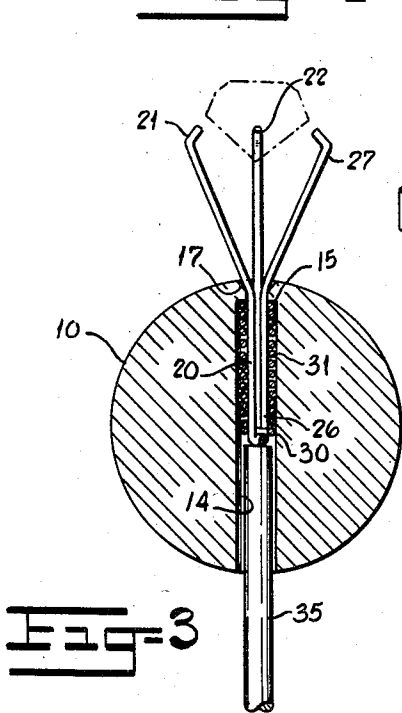


Fig-3

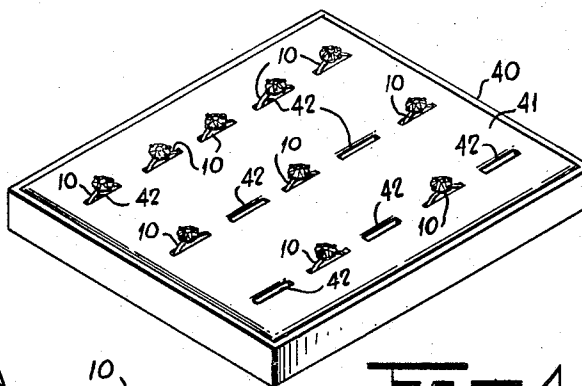


Fig-4

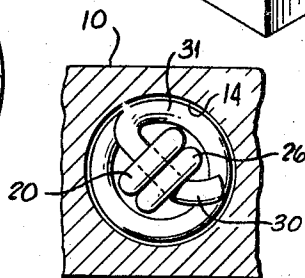


Fig-5

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GEM HOLDER

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4 Claims. (Cl. 206—75)

This invention relates generally to a holder or temporary mount for gems such as cut diamonds and the like and more particularly to a holder for holding individual gems in a position to display the gems and also provide a means for holding the gems when testing and evaluating them.

Unmounted cut gems and stones are usually stored by mounting the gems on boards built especially for this purpose or wrapping the individual gems in pieces of tissue paper and when inspecting the stones to determine their value, testing the perfection of the stones, or inspecting the stones prior to their purchase, they are lifted from the board or paper and held by tweezers or the like. The use of tweezers to handle the stones is awkward since pressure must be maintained on the tweezers to keep the stone gripped therein and the gripping surface of the tweezers obscure portions of the stone from view so that the position of the tweezers must be changed in order to view the stones from all sides. After the value of the stone has been determined, unless the value and other information relating to the stone is fixed in some manner to the stone, the identifying information and the stone may become separated. When the identifying information and the stone are separated, it is difficult to identify the stone according to its value because, although two stones may look identical they may vary greatly in value because of the difference in color and the number of inclusions or flaws therein. Many times, even an expert can detect the difference in two stones only after subjecting the stones to various scientific tests under controlled lights and by observing the stones under the microscope.

It is an object of this invention to provide a gem holder for holding cut gems, such as diamonds and the like, in a position similar to their normal position when mounted in the setting of a ring, broach or other jewelry so that the gem may be readily examined from all sides and the holder will resiliently grip the gem to prevent accidental removal therefrom.

It is another object of this invention to provide a gem holder which holds the gem in such a manner that all sides of the gem may be easily observed by turning the holder and the value of the gem and any other pertinent information may be marked on the holder so that the value thereof will be attached to the stone until the stone is ready to be permanently mounted in a setting.

It is a more specific object of this invention to provide a gem holder with a disk-shaped main body portion having a plurality of spring biased gem holding prongs extending therefrom to grip the gem in a plurality of positions and facilitate the use of the holder with gems of various shapes such as round, square, rectangular and oval. The body portion of the gem holder is also provided with means for actuating the gem holding prongs to release the gem when desired and the body portion of the holder being disk-shaped and of substantially the same diameter as a ring to facilitate placing the body of the holder in a conventional ring display box or tray so that the gems provide an attractive display.

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Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which—

5 Figure 1 is an isometric view of the gem holder showing a cut stone mounted therein;

Figure 2 is a vertical sectional view through the gem holder shown in Figure 1 and being taken substantially along the line 2—2 in Figure 1;

10 Figure 3 is a view similar to Figure 2 except showing the gem gripping prongs in gem releasing position, being moved thereto by the upper end of a tool inserted into the gem holder;

Figure 4 is an isometric view of a conventional ring display tray and showing a plurality of the gem holders disposed therein;

Figure 5 is an enlarged fragmentary sectional view through the body of the gem holder and being taken substantially along the line 5—5 in Figure 2.

20 Referring more particularly to the drawings, the numeral 10 indicates a flat relatively thin body 10 of the gem holder having flat opposed parallel side surfaces joined to a relatively narrow wall defining the edge of the body 10. The body 10 is shown as a relatively thin disk, but it should be understood that the body could be a thin rectangle or triangle, if desired. The body 10 is provided with a main bore 14 drilled therein and which extends from one edge of the body 10 substantially through the diameter of the body 10 and in parallel relationship to the sides thereof. The bore 14 terminates adjacent the opposite edge of the body 10 at a shoulder 15 joining the bore 14 to an outwardly flared or conical opening 17 communicating with the edge of the body 10.

35 A first gem holding member comprises a substantially U-shaped spring wire 20 opposite ends of which are bent to define respective stone or gem gripping prongs 21 and 22 and the medial portion of the wire 20 extends downwardly through the opening 17 and into the bore 14. A second gem holding member comprises a second substantially U-shaped spring wire 26 opposite ends of which are bent to define respective stone or gem gripping prongs 27 and 28 and the medial portion of the wire 26 extends downwardly through the opening 17 and into the bore 14 in side-by-side relation with the wire 20. The lower ends of the wires 20 and 26 pass around the lower free end or tail 30 of a compression spring 31 (Figure 5). The compression spring 31 is mounted for vertical movement in the bore 14 with its upper end abutting against the shoulder 15 and its lower end normally urging the lower ends of the wires 20 and 26 downwardly so that the stone gripping prongs 21, 22, 27 and 28 are normally moved toward each other as the wires 20 and 26 engage the conical opening 17.

55 The prongs 21, 22, 27 and 28 may be moved apart radially by raising the lower ends of the wires 20 and 26 to compress the spring 31 and allow the normally outwardly biased upper portions of the legs of the wires 20 and 26 to separate upon being raised through the opening 17 in the body 10 (Figure 3). The wires 20 and 26 may be raised by a tool, illustrated as a rod 35, which is small enough to insert in the bore 14 and engage and lower ends of the wires 20 and 26 and upon raising the wires 20 and 26 to open the prongs 21, 22, 27 and 28, as shown in Figure 3, the gem may be positioned therebetween. When the rod 35 is lowered in the bore 14, the compression spring 31 will urge the lower ends of the wires 20 and 26 downwardly and the legs of the wires 20 and 26 will be urged toward each other as they slide downwardly along the conical opening 17 and thus cause the gripping prongs 21, 22, 27 and 28 to engage diametrically opposite portions of the stone and grip the same therebetween, as shown in Figures 1 and 2.

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The body portion 10 of the gem holder may be made of any suitable material, such as steel, plastic, or the like and may be any desired color to present an attractive setting for the stones. When the body portion 10 is made of a slick or glossy surface material, such as plastic, a roughened area, indicated by the dotted rectangle 36, may be provided on one or both sides of the body 10 to provide a roughened writing surface to apply identifying indicia thereon, such as the weight of the stone, value, and any other pertinent information. If desired, a suitable gummed label may be adhered to either side of the body portion 10 for identification purposes.

Referring to Figure 4, there will be observed a conventional ring display tray or drawer 40 having an upper display board 41 positioned therein and in which vertically and longitudinally aligned rows of spaced apart slots 42 are provided to normally receive and resiliently hold rings and the like placed therein. This ring display tray 40 may be conveniently utilized to display unmounted gems held by the gem holder by placing the body 10 of the gem holder in the slots 42 in the tray 41 and whereupon the gems appear in their normal setting, similar to their appearance when mounted in a ring.

It is thus seen that a gem holder for temporarily mounting and holding cut gems has been provided having a disk-shaped body portion with gem engaging prongs extending outwardly from the body and wherein the prongs are normally urged into gem engaging position by resilient means disposed internally of the body 10 of the gem holder. The body of the gem holder is also provided with adequate space for identifying the gem held thereby and is adapted to readily be positioned in a conventional ring display tray. The body of the gem holder also provides a convenient handle portion to facilitate holding and turning the gem held thereby when examining the gem under any and all conditions. The gem holding prongs may be released by a tool separate from the holder and the manner of releasing the gem is not immediately visible from a casual observance of the gem holder. Since the tool must be inserted into the inside of the body portion of the gem holder before it will operate, any chance of accidentally releasing the gem held thereby is obviated.

In the drawings and specification there has been set forth a preferred embodiment of the invention and, although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation, the scope of the invention being defined in the claims.

I claim:

1. A gem holder for retaining a gem comprising a body portion, said body portion having an opening therethrough, a first substantially U-shaped gem holding member disposed in said opening, said first U-shaped member having free ends bent to form first gem holding prongs, a second substantially U-shaped holding member disposed in said opening in side-by-side relation to said first gem holding member, said second U-shaped member hav-

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ing free ends bent to form second gem holding prongs, a compression spring surrounding the first and second gem holding members disposed in said opening, one end of said spring engaging the body portion, and the other end of said spring passing through the first and second U-shaped gem holding members to urge the gem holding members and the gem holding prongs into gem engaging position.

2. A gem holder for retaining a gem comprising a thin substantially flat sided body portion, said body portion having an opening therethrough which is disposed in parallel relation to the flat sides of the body portion, a first substantially U-shaped gem holding member disposed in said opening, said first U-shaped member having free ends bent to form first gem holding prongs, a second substantially U-shaped holding member disposed in said opening in side-by-side relation to said first gem holding member, said second U-shaped member having free ends bent to form second gem holding prongs, and resilient means disposed in said opening and engaging the first and second gem holding members to urge the gem holding members and the gem holding prongs toward each other and into gem engaging position.

3. A gem holder for retaining a gem comprising a disk body portion, said body portion having an opening therethrough, a first substantially U-shaped gem holding member disposed in said opening, said first U-shaped member having free ends bent to form first gem holding prongs, a second substantially U-shaped holding member disposed in said opening in side-by-side relation to said first gem holding member, said second U-shaped member having free ends bent to form second gem holding prongs, and resilient means disposed in said opening and engaging the first and second gem holding members to urge the gem holding members and the gem holding prongs toward each other and into gem engaging position.

4. A gem holder for retaining a gem comprising a thin substantially flat sided body portion, said body portion having an opening therethrough which is disposed in parallel relation to the flat sides of the body portion, a plurality of resilient gem holding members disposed in the opening, one end of said gem holding members extending out of one end of the opening to normally engage the gem, resilient means in the opening engaging said gem holding members to normally urge the gem holding members inwardly toward the body portion and resiliently hold the gem holding members in engagement with the gem, and the other end of said gem holding members disposed intermediate the ends of the opening to provide means for overcoming the resilient means by inserting a tool into the opening and against the ends of said gem holding members.

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