March 4, 1952 G. W. CRISE 2,587,972

GEM STONE FOR ARTICLES OF JEWELRY

Filed Jan. 30, 1946 2 SHEETS—SHEET 1

Fig. 1.

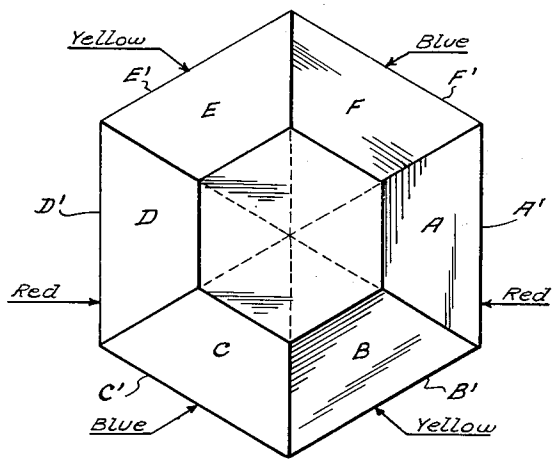
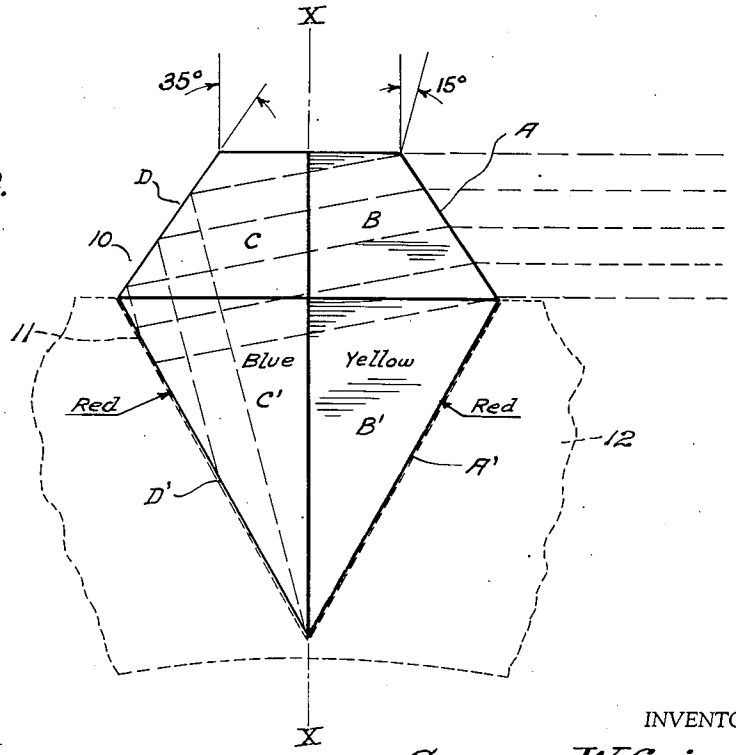


Fig. 2.



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Fig. 3.

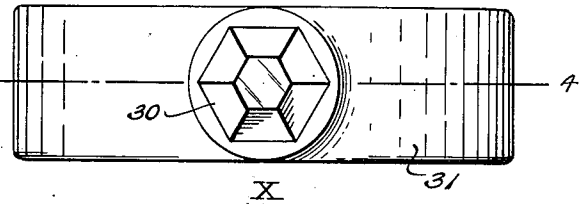


Fig. 4.

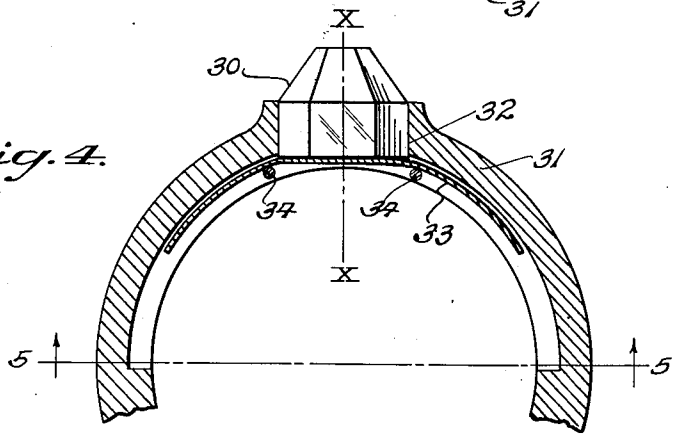


Fig. 5.

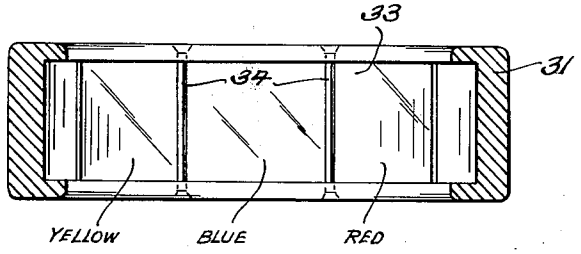
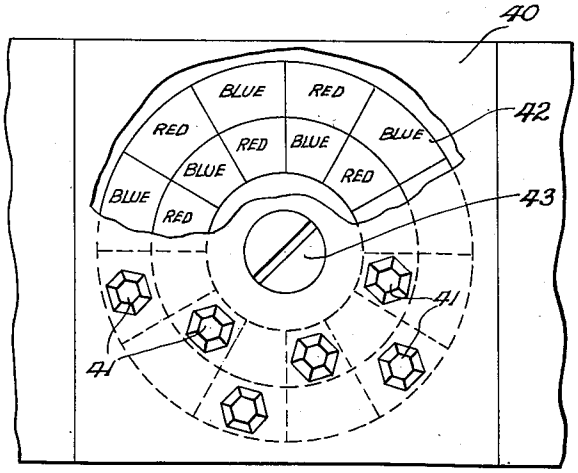


Fig. 6.



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GEM STONE FOR ARTICLES OF JEWELRY

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Application January 30, 1946, Serial No. 644,371

3 Claims. (Cl. 63—32)

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My invention relates to ornamental jewelry and, more specifically, to novelty jewelry comprising means for changing the coloration of the settings therein.

At present, it is necessary for a person desiring various colored articles of ornamentation to have a number of articles embodying each separate color.

It is, therefore, an object of my invention to provide a single article of ornamentation comprising a setting capable of transmitting various colors when viewed from various angles.

It is another object of my invention to provide a single article of ornamentation wherein the overall color of a setting may be changed by manually operable means.

It is still another object of my invention to provide an article of ornamentation comprising a multiplicity of settings whose colors may be ultimately changed by the wearer.

It is a further object of my invention to provide an article of ornamentation containing variegated settings which may be made from inexpensive clear molded glass having an index of refraction as low as 1.5.

For a further understanding of my invention, reference is made to the following description and the accompanying drawings, wherein:

Fig. 1 is a plan view of an article of jewelry formed in accordance with the present invention;

Fig. 2 is a side elevational view thereof;

Fig. 3 is a top plan view disclosing the article in a mounted form;

Fig. 4 is a vertical transverse sectional view on the line 4—4 of Fig. 3;

Fig. 5 is a horizontal sectional view on the line 5—5 of Fig. 4;

Fig. 6 is a plan view of a modified form of my improved article of jewelry.

Referring to Figs. 1 and 2 of the drawings, it will be seen that my invention makes use of a flat top molded or cut clear glass body 10 with an index of refraction in the neighborhood of 1.5 having upper and lower portions, each embodying six sides or facets. The planes of the upper side facets A, B, C, D, E and F having an angle of 35 degrees with the longitudinal axis X of the body, and the planes of the lower facets A', B', C', D', E' and F' have an angle of 30 degrees with the longitudinal axis X. The lower portion of the transparent body 10 is retained within a suitably shaped socket 11 of a ring or brooch mounting 12. Any suitable coloring material is applied either directly to the outer surfaces of the lower facets of the transparent body 10 or to

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the corresponding walls of the socket 11 in direct intimate contact with the lower facets of the body. For ease of explanation, let us assume that facets A' and D' have the color red in registration with their surfaces, facets B' and E' have the color yellow, and facets C' and F' have the color blue.

Referring to Fig. 2 of the drawings, it will be seen that light or lines of vision directed perpendicularly to the plane of the facet A strike facet A and are deflected horizontally and downwardly striking the red colored facet D' or the opposite facet D from which they are in turn deflected down upon D'. As the angle of vision is raised from the horizontal to within 35 degrees of the vertical, all lines of vision from the observer striking facet A and the flat top surface of the body 10 will be ultimately focused to substantially a single point on the red colored facet D'. From 35 degrees of the vertical to 15 degrees of the vertical, the opposite facet D will receive a small amount of the lines of vision which are deflected off of the body 10 entirely. The lines of vision striking the facets B and F will be focused together in converging horizontal beams and will further converge upon downward travel so as to ultimately fall on the triangular facet D'.

Thus it will be seen that the lines of vision perpendicular to the plane of any one of the facets A, B, C, D, E or F will reflect the color of the opposite lower facet A', B', C', D', E' and F', due to the short focus convergent optical qualities of the body 10. Also, in viewing the body 10 from any angle between 15 degrees of the vertical and vertical, the composite of all the colors of the lower facets will be reflected.

Figs. 3, 4 and 5 of the drawings disclose another form of my invention wherein a transparent body 30 comprises a flat top and an upper portion having six side facets whose planes form an angle of 35 degrees with the longitudinal axis X of the body 30, and a lower portion having a flat base and six side facets whose planes are parallel to the longitudinal axis X. A mounting 31 having an open socket 32 providing mirrored or highly reflecting walls is adapted to receive and retain the transparent body 30. A slide element 33 is movably positioned within the mounting 31 below the flat base of the transparent body 30, and has upon its upper surface, in registration with the base of the transparent body 30, a plurality of colored regions. Projecting studs 34 are rigidly attached to the mounting 31 and serve to retain the element within the mounting 31, the slide element being movable so

as to bring any desired color on the element in registration with the base surface of the body **30**.

The slide element **33** may be constructed of any suitable material and is especially adapted to be constructed of a plastic for ease of coloration. The mounting **31** may take the form of any article of ornamentation such as a ring, brooch or pendant.

Fig. 6 of the drawings discloses still another form of my invention, wherein a cluster mounting **40** contains a series of spaced transparent bodies **41** identical to the transparent body used in the preceding modification. A rotary disk **42** is positioned within the mounting **40** and has alternate color regions arranged thereon in registration with the base surfaces of the transparent bodies **41**. The rotary disk may be adjusted by loosening a screw **43** so as to vary the color of the transparent bodies **41**. This modification may also take the form of a ring but is more highly adaptable in the form of a brooch or some larger article of ornamentation.

In view of the foregoing disclosures, it will be seen that my invention provides an inexpensive novelty jewelry wherein the transparent bodies may be made from cut or molded glass having an index of refraction as low as 1.5. It will also be manifest that my invention eliminates the necessity of having a number of different articles of ornamentation to provide a desired color scheme.

My invention is characterized by its simplicity of construction and cheapness of manufacture.

While I have described what I deem to be preferred forms of my invention, it will be understood that minor changes embodying the operating principles and utilizations of my improved transparent body may be made without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In an article of jewelry; a one-piece translucent jewel body of solid geometrical shape formed with a normally exposed viewing portion and a mounting portion normally concealed from the view of an observer, the viewing and mounting portions of said body being each symmetrical about the common longitudinal axis of said body and protruding longitudinally outwardly from the major transverse dimension of said body, the viewing portion of said body possessing short focus convergent optical qualities and being arranged to refract substantially all lines of sight of an observer looking upon the viewing portion of said body from one side thereof to substantially a single segment on the opposite side of the mounting portion of said body; and a plurality of differently colored coating films disposed in direct intimate contact with different segments of the mounting portion of said body, said films being disposed in different color sequence about the longitudinal axis of said body, whereby each of said films projects its color alone to an observer looking upon the viewing portion of said body from a side thereof opposite a given film, said body, when rotated axially and relative to the lines of sight of an observer, serving to impart to the observer the illusion that the entire viewing portion of said body changes color.

2. In an article of jewelry; a one-piece translucent jewel body of solid geometrical shape formed with an upper viewing portion and a lower mounting portion normally concealed from the view of an observer, each of said upper and lower portions protruding longitudinally from the major transverse dimension of said body and being formed with a plurality of angularly related facets disposed in a symmetrical pattern about the longitudinal axis of said body, said body having short focus convergent optical qualities and being so formed as to refract substantially all lines of sight of an observer viewing the upper portion of said body from one side thereof to substantially a single facet disposed on the opposite side of the lower portion of said body; and a plurality of differently colored coating films disposed in direct intimate contact with different facets of the lower mounting portion of said body and in different color sequence about the longitudinal axis of said body for transmitting separate and different colors to the upper viewing portion of said body when the latter is viewed from different sides thereof.

3. In an article of jewelry; a single piece translucent body of solid geometrical shape formed with an upper viewing portion and a lower mounting portion normally concealed from the view of an observer, each of the upper and lower portions of said body being formed with a multiplicity of angularly related facets disposed in a symmetrical pattern about the longitudinal axis of said body and each of the upper and lower portions of said body protruding longitudinally beyond the major transverse dimension of said body, the upper and lower portions of said body defining a gem-shaped article having short focus convergent qualities and being arranged to refract substantially all lines of sight of an observer striking one side of the upper viewing portion of said body to a single facet on the opposite side of the lower mounting portion of said body; and a plurality of differently colored coating films disposed in direct contact with different facets of the lower mounting portion of said body, whereby each of said film projects its color alone to an observer viewing the upper portion of said body from a side thereof opposite a given film, said body, when rotated axially and relative to the lines of sight of an observer, serving to impart to the observer the illusion that the entire upper portion of said body changes color.

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