350-4.1 SR CROSS REFERENCE SEARCH ROOI
XR 1,090,278
TX 3086R

DESIGN COMPOSER.

APPLICATION FILED OCT. 16, 1912.

1,090,278. Patented Mar. 17, 1914.

Fig. 1.

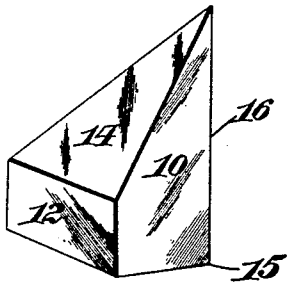


Fig. 2.

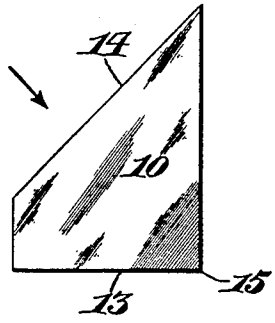


Fig. 3.

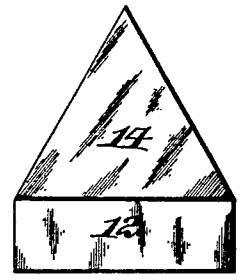


Fig. 4.

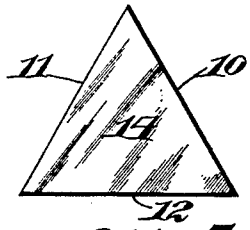


Fig. 5.

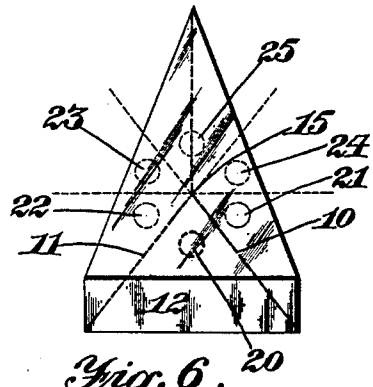


Fig. 6.

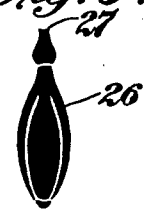
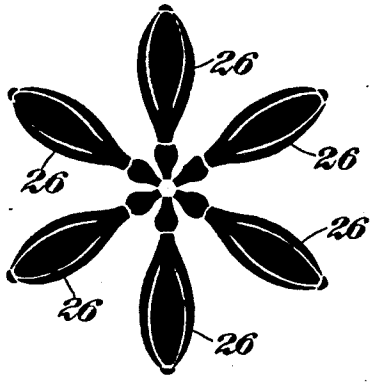


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES P. COATES, OF ST. LOUIS, MISSOURI.

DESIGN-COMPOSER.

1,090,278. Specification of Letters Patent. Patented Mar. 17, 1914.

Application filed October 16, 1912. Serial No. 726,176.

To all whom it may concern:

Be it known that I, CHARLES P. COATES, a citizen of the United States, and residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Design-Composers, of which the following is a specification.

This invention relates to a device for composing or developing designs.

In the design of wall paper, carpets, linoleums, etc., the design is frequently made up of a number of like design elements which are arranged and combined in symmetrical relation to produce together a composite design. Now it is difficult and in most cases impossible to predetermine whether a design made up of certain design elements will be artistic and pleasing. It is therefore necessary in practically every case to complete the whole design in order to determine this fact. Such a procedure when done by laying out the elements in symmetrical relation requires a large amount of time, and this time is wasted when it is found that the resultant design is not artistic and pleasing.

One of the objects of this invention therefore is to provide means whereby a composite design made up of a given design element may be quickly predetermined and viewed without requiring the entire design to be laid out.

Another object is to provide a device which is simple in construction and operation, cheap to manufacture and small in bulk.

Further objects will appear from the detail description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a device embodying this invention, Fig. 2 is a side elevation, Fig. 3 is a front elevation, Fig. 4 is a plan view, Fig. 5 is a view looking in the direction of the arrow, Fig. 2, Fig. 6 is a design element, and Fig. 7 is a composite design as formed from the design element, Fig. 6.

Referring to the accompanying drawing and more particularly to Figs. 1 to 4 inclusive, the device as shown comprises a transparent prism of clear glass. This prism is preferably triangular in form so as to form side faces or surfaces 10 and 11, a front face or surface 12, a base 13 and a top face or surface 14. The faces 10, 11 and 13 form together a solid angle while the top surface 14 is positioned at an acute angle with respect to the body of the prism so as to cut the surfaces forming the solid angle, whereby the observer looking in the direction of the arrow Fig. 2 can see the corner 15 which forms the vortex of the solid angle and which is positioned opposite the surface 14. The base of the prism is preferably an equilateral triangle while the surface 14 is preferably positioned at an angle of approximately 45° with respect to the body of the prism, so that the observer when viewing the corner or vortex 15 will look in a direction normal to the surface 14. The side faces 10 and 11 will form reflecting surfaces or mirrors for an object placed underneath the prism when setting on its base 13.

Referring now to Fig. 5, which is a view looking in the direction of the arrow Fig. 2, 20 designates an object placed underneath the base 13 of the prism. Now an image 21 of the object 20 is formed behind the mirror 10 while an image 22 is formed behind the mirror 11. The image 21 will in turn form the object of an image 23 behind the mirror 11, while the image 22 will form the object of an image 24 behind the mirror 10. The images 23 and 24 will in turn form the objects of coinciding images 25 behind the mirrors 10 and 11 respectively. It will therefore be observed that if the device is placed over an object it will multiply that object by forming a series of images, and that these images will be placed in radial relation with respect to the object and with the corner 15 as a center so as to form together a composite design. The composite picture or design will be practically symmetrical in form, and may be viewed as a whole by looking through the prism in the direction of the arrow Fig. 2.

A practical example of a composite design formed with this device is shown in Figs. 6 and 7. If the prism is placed over the design element 26 with the corner 15 just covering the extreme point 27 of the element and with the median line of the element positioned centrally of the base 13, then if we look into the prism we see the resultant composite design as shown in Fig. 7. By moving the prism the design can be varied considerably. If for instance the prism is placed so as to cover the end 27 while one of the base edges is placed on the median line of the design element, we will see a resultant design having only three design elements. The vertical edge 16 as well as the edges be-

tween the base 13 and the faces 10 and 11 should be as sharp as possible in order not to blur the composite design. The object as well as the images are viewed through the glass prism, this will cause the whole composite design to present a uniform appearance so that there will be no difference in brightness between the different elements of the assembled design. The design as viewed will therefore present practically the same appearance as when finally laid out and used. By making the base an equilateral triangle the images will be so positioned with respect to each other and with respect to the object as to form together a complete composite design.

By using this device it is possible to quickly determine a composite design from any given design element, and the amount of work heretofore required in order to predetermine such a design is entirely done away with. The device can be moved over different surfaces and parts of designs so as to find experimentally many artistic and pleasing designs. This experimental composing or finding of designs has not heretofore been possible with the methods as heretofore practised. The device may be combined with the lens of an ordinary camera so that the composite design may be thrown as an image on the plate or film of the camera whereby this design may be photographed directly.

It is obvious that various changes may be made in the details of construction within the scope of the claims without departing from this invention, and it is therefore to be understood that this invention is not to be limited to the specific construction shown and described.

Having thus described the invention what is claimed is:

1. A device of the class described comprising a solid transparent prism having a plurality of reflecting surfaces positioned in angular relation and adapted to form and relatively arrange a plurality of images to form a composite picture or design.

2. A device of the class described comprising a solid transparent prism having a plurality of reflecting surfaces positioned in angular relation and adapted to form a plurality of images of an object or element and relatively arrange said images and said object or element to form together a composite picture or design.

3. A device of the class described comprising a solid prism having a plurality of surfaces positioned to form a solid angle, a plurality of said surfaces forming reflecting surfaces adapted to form and relatively arrange images of an object positioned under another of said surfaces to form a composite picture or design.

4. A device of the class described comprising a prism having a plurality of reflecting surfaces and having its end surface arranged at an acute angle with respect to the body of the prism to permit a corner of said prism to be viewed through said end surface.

5. A device of the class described comprising a triangular prism having a plurality of reflecting surfaces and having its end surface arranged at an acute angle with respect to the body of the prism to permit the corner opposite said surface to be viewed through the prism.

6. A device of the class described comprising a prism having a plurality of surfaces positioned to form a solid angle, a plurality of said surfaces forming reflecting surfaces, said prism having a surface cutting the surfaces forming said solid angle.

In testimony whereof I affix my signature in the presence of two witnesses.

CHARLES P. COATES.

Witnesses:
J. H. BRUNINGA,
R. E. WHITAKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."