Oct. 27, 1970 M. J. OPPENHEIM 3,535,791

DESIGN DRAWING DEVICE

Filed March 26, 1968

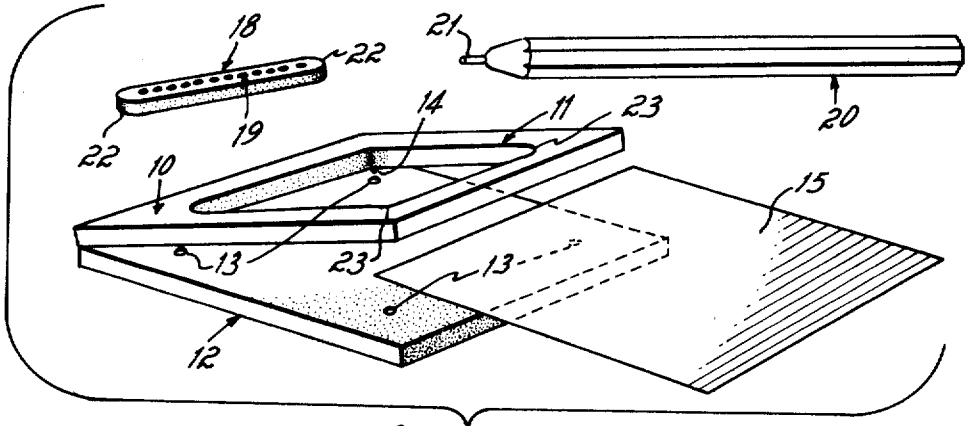


Fig. 1

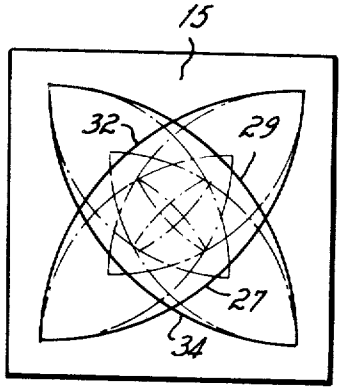


Fig. 2

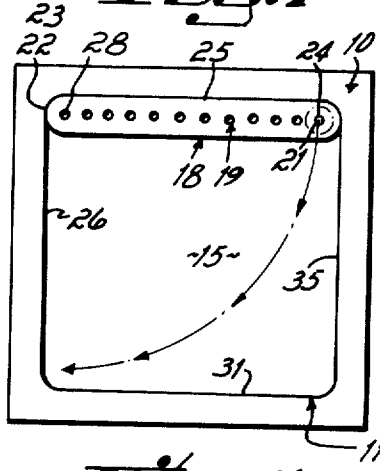


Fig. 3

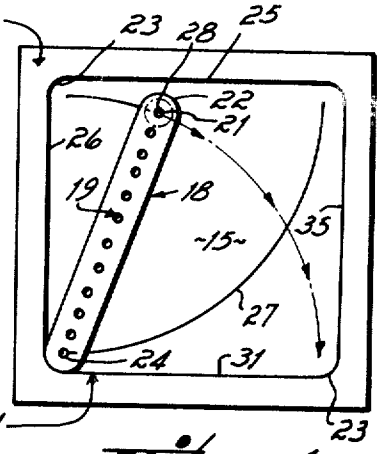


Fig. 4

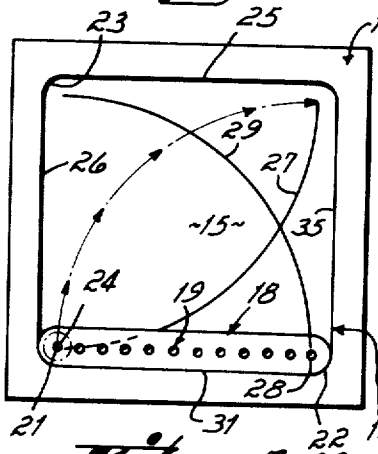


Fig. 5

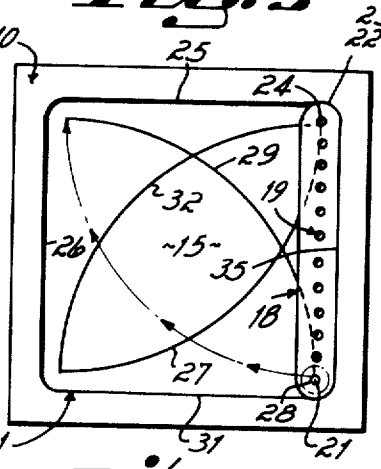


Fig. 6

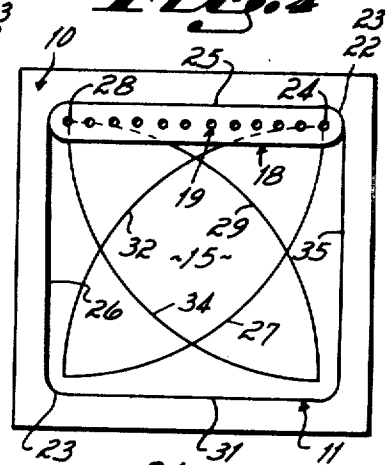


Fig. 7

United States Patent Office 3,535,791 Patented Oct. 27, 1970

3,535,791

DESIGN DRAWING DEVICE

Michael J. Oppenheim, Cincinnati, Ohio, assignor to Kenner Products Company, Cincinnati, Ohio, a corporation of Delaware

Filed Mar. 26, 1968, Ser. No. 716,087
Int. Cl. B43l 9/00
U.S. Cl. 33—27 4 Claims

ABSTRACT OF THE DISCLOSURE

A design drawing device particularly adapted for use by children comprising, in combination and in preferred form, (a) a frame defining a substantially square window, and (b) a flat bar of a length less than the length of one window side, the bar being provided with a number of holes along its length for accommodating a scribing instrument. With the scribing instrument operably positioned in a selected hole in the bar, the bar may be pivoted from corner to corner within the window frame to establish a design on paper positioned beneath the window.

This invention relates to design drawing devices.

The design drawing device of this invention is particularly adapted for use by children, most particularly those children in the age group of from about three to about seven years of age. Children of that age group may quickly and easily produce pleasing designs or patterns upon a suitable drawing surface, for example, paper, with the design drawing device of this invention.

The design drawing device of this invention comprises, in preferred form, a frame defining a substantially rectangular window opening. In combination with the frame, there is provided a bar of a length less than the length of one window side. A number of pencil holes are provided along the bar's length. In use, a pencil or other scribing instrument is positioned within one of the holes of the bar. The bar is then pivoted about a corner of the window using the pencil both as the drawing means for marking a curved line on paper beneath the frame opening and as the motive means for affecting pivotal movement of the bar. This novel combination of a bar pivotable within a rectangular window opening enables a young child to inscribe a series of different dimensioned designs and, thereby, create an overall design pattern that is aesthetically pleasing. The drawing device is simple to understand and to use, and its use by a child serves both to amuse and to educate.

Thus, the primary objective of this invention has been to proivde a design drawing device that is particularly adapted for use by children of a relatively young age.

Other objectives and advantages of this invention will be more apparent from the following detailed description taken in conjunction with the drawings in which:

FIG. 1 is a perspective view illustrating the design drawing device of this invention;

FIG. 2 illustrates in solid lines a design drawn with the design drawing device of this invention and in phantom lines a few of the additional designs which may be drawn;

FIG. 3 is a top view of the design drawing device illustrating operation of the device; and

FIGS. 4–7 are similar to FIG. 3 and illustrate the operational steps in scribing the design shown in solid lines of FIG. 2.

As illustrated in FIG. 1, the design drawing device of this invention includes a frame **10** having a window **11** opening therein. The window **11** is polygonal in configuration. In the preferred embodiment the frame **10** is provided with a window **11** having a square configuration. The frame **10** is connected by hinges, not shown, to a

base or support plate **12**. It will be noted that the base plate **12** provides spaced depressions **13** for receiving tits **14** depending from the underside of the frame. Cooperation of the tits **14** with the depressions **13**, when the frame **10** and base plate **12** are pressed together, aids in preventing undesirable movement of a sheet **15** of paper that is inserted between the frame **10** and the base plate **12** during operation of the design drawing device, see FIG. 1. The sheet **15** of paper, in this preferred embodiment, provides the surface on which the final design is drawn.

A bar **18** of a length not greater than the length of one window side is provided to cooperate with the window opening **11**. The bar **18** has a series of spaced holes **19** punched through it, the holes being symmetrically spaced relative to the ends of the bar. The holes **19** are sized to receive the stylus of a scribing instrument, a pencil **20** with a graphite tip **21** being shown as the scribing instrument for illustrative purposes. The bar **18** is also characterized in that it is preferably provided with arcuate or rounded ends **22** of a radius substantially equal to the radius of arcuate or rounded corners **23** provided in the window opening **11**. Thus, the bar **18** may be easily pivoted about any of the four corners of the window **11** because of the closely similar radii of the bar ends **22** and the window corners **23**.

In operation, and as illustrated in FIGS. 3–7, the bar **18** can be manipulated with the pencil **20** so as to provide a design configuration on paper **15** between the frame **10** and base plate **12** as illustrated by solid lines in FIG. 2. The dashed lines of FIG. 2 illustrate additional designs that can be formed when holes **19** other than the outermost holes **24**, **28** of the bar **18** are used. To commence drawing the design illustrated by solid lines in FIG. 2 the bar **18** is placed flush against the top side **25** of the window **11** and the pencil tip **21** is inserted into hole **24**. The bar **18** is then pivoted about the upper left-hand corner of the window opening **11** so that the stylus **21** follows the arrowed line of FIG. 3 to provide the solid line **27** illustrated in FIG. 4. When the bar **18** reaches the end of the arrowed line illustrated in FIG. 3, the bar is flush against the left-hand side **26** of the window **11**. At this point the stylus **21** is removed from the hole **24** and is reinserted into hole **28** symmetrically positioned at the other end of the bar from hole **24**, see FIG. 4. The bar **18** is now pivoted in the same manner, but this time the pivot point is in the lower left-hand corner of the window opening **11**, to provide a second solid line **29** in combination with the first **27** as illustrated in FIG. 5. When the second solid line **29** has been completed the bar **18** rests flush against the bottom **31** of the window **11**. The stylus **21** is now removed back to the hole **24**. Subsequently, the bar **18** is again pivoted, but this time it is pivoted about the lower right-hand corner of the window opening **11**, to provide the solid line **32**. The bar **18** is now flush against right-hand side **35** of the window **11**. As shown in FIG. 7 the stylus **21** is once again removed to hole **28** and thereafter the bar **18** is pivoted about the upper right-hand corner of the window opening **11** back to its starting position shown in FIG. 3, thereby drawing line **34**. By repeating the operational sequence, as described immediately above, with different pairs of holes **19** symmetrically positioned along the bar's length, a series of interrelated designs may be established as is illustrated in phantom lines of FIG. 2.

The frame **10** and the base plate **12** may be made of any desirable material that permits efficient and economical fabrication. Typically, such materials include thermoplastics and the plastics used may be colored if desired. The frame **10** and base plate **12** may be transparent, translucent, or opaque, as desired, but they will preferably be opaque. The bar **18** may also be made from any

material that permits efficient and economical manufacture, however, typically such materials will also include thermoplastics. It is highly preferred that the bar **18** be transparent so that, as the lines **27, 29, 32, 34** are being traced on the paper **15** underneath the window **11**, the child or other user may readily observe such tracings in their entirety. This for the reason that in making certain designs it may not be desired to trace from corner **23** to corner **23**, as described, but it may be desirable to stop at some point intermediate the corners to provide different and varying designs. Although it is desired that the bar **18** be formed of a transparent material, the bar may be tinted with a color so as to present a more pleasing appearance for the device.

Having described the preferred embodiment of my invention, what I desire to claim and protect by Letters Patent is:

1. A design drawing device comprising, in combination,

a frame defining a window in the form of a square, said window having four straight sides,

a bar with straight sides having a length substantially equal to the length of one of the sides of said window, said bar being pivotable from one corner to another corner along the straight sides of said window and within said window opening, and said corners cooperating with the ends of said bar to provide turning points of pivotal movement,

a design receiving surface adopted to be positioned beneath said window,

structure defining at least two holes along said bar's length for accommodating a scribing instrument, said scribing instrument being operably positioned in a selected hole to permit pivoting of said bar from one corner to another within said window and to establish a design on said design receiving surface, and

a base hingedly connected to one edge of said frame, said base being adapted to support said design receiving surface as a design is drawn thereon.

2. A design drawing device as set forth in claim **1** wherein said holes are symmetrically positioned along the length of said bar.

3. A design drawing device as set forth in claim **1** wherein the ends of said bar are rounded and wherein the corners of said window are rounded to facilitate pivoting of said bar from corner to corner, the radii of said window corners and said bar ends being substantially equal.

4. A design drawing device as set forth in claim **1** wherein said bar is substantially transparent so that the design is completely visible during the pivotal movement of said bar about the periphery of said window as the design is being created.

References Cited

UNITED STATES PATENTS

1,878,633	9/1932	Hoferer	33—27
3,061,946	11/1962	Carty	35—26
3,378,927	4/1968	Lowery	33—26

FOREIGN PATENTS

1,409,907	7/1965	France.

HARLAND S. SKOGQUIST, Primary Examiner

U.S. Cl. X.R.

35—26