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THREE-DIMENSIONAL STRING SCULPTURE

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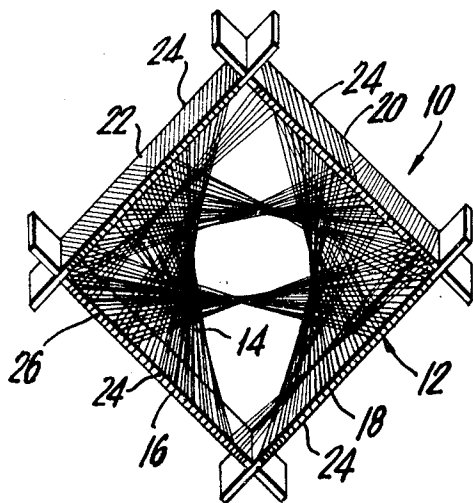


FIG. 1

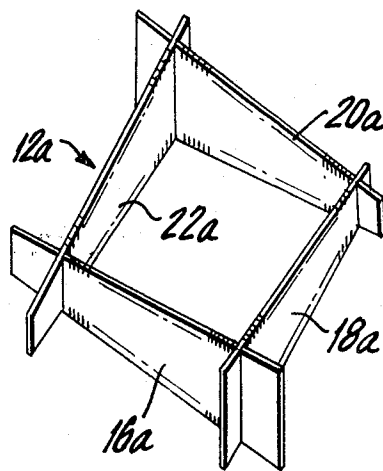


FIG. 2

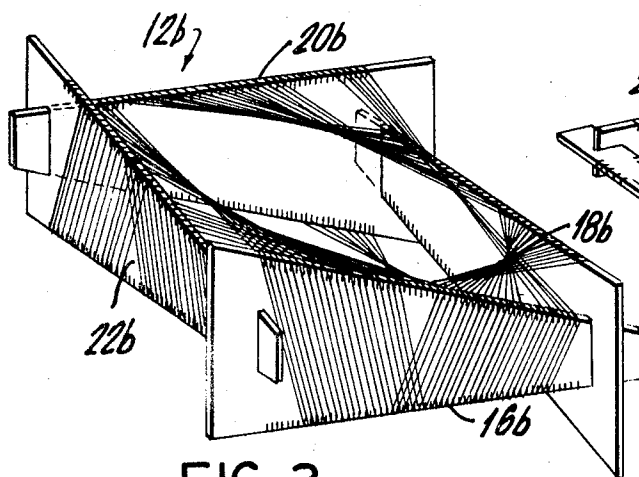


FIG. 3

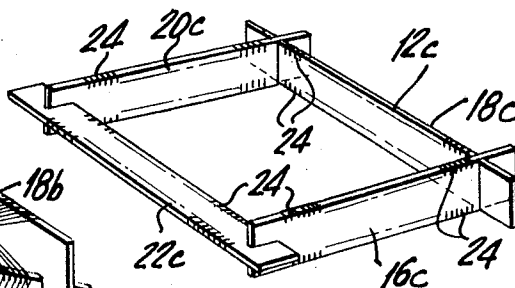


FIG. 4

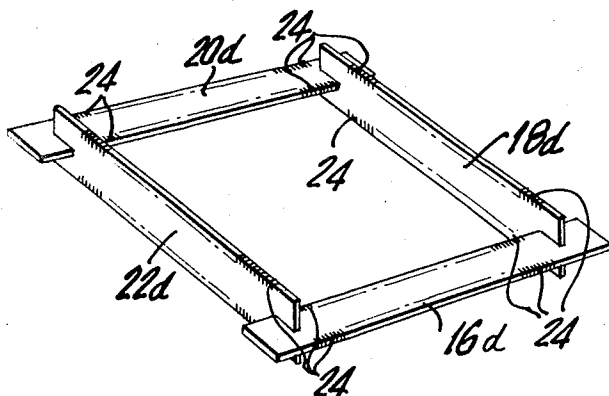


FIG. 5

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THREE-DIMENSIONAL STRING SCULPTURE

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5 Claims

ABSTRACT OF THE DISCLOSURE

A three-dimensional sculpture includes a plurality of members interlocked at their ends to form a polygonal frame. Each of the frame members includes a series of notches formed along their opposing longitudinal edges. A filament such as a string is thereafter passed through the notches on the several frame members to thereby form a highly decorative sculptural pattern enclosed by the frame.

The present invention relates generally to sculpture, and more particularly to a three-dimensional construction kit which can be readily assembled to produce a highly decorative piece of sculpture.

As the amount of leisure time of most Americans has increased in recent years, so has the need for more satisfying and interesting hobbies and other leisure-time activities. Unfortunately, much of leisure time is spent on relatively trivial and meaningless activities whose main purpose appears to be the passing of time with the least amount of effort and personal involvement.

Perhaps the most satisfying activities of the leisure type are those in which the creative and aesthetic faculties of the individuals are involved. Heretofore, the path to creative activities such as painting and sculpture have been available only to those who have native talent, or those who have received extensive training in these activities.

To be able to provide maximum satisfaction, a leisure-time activity should not be overly demanding, as this would lead only to frustration, nor should it be too simple, since that would result only in boredom. The activity should also permit at least a minimum opportunity for the individual contribution, other than the mere following of instructions.

It is also desirable to enhance the attractiveness of the leisure-time activity that the equipment utilized in the performance of the activity be relatively inexpensive although not shoddy and easily breakable, and that the completion of the activity yield some tangible and permanent result which continues to thereafter provide significant pleasure to the individual engaged in the creation of the finished work.

While the leisure activities market has been flooded in recent years with games, kits, and the like, there has heretofore been no article available on the market for use in making a sculpture that is both inexpensive to purchase and challenging in its construction, and yet which enables the individual to create an attractive piece of sculpture which could be shown with pride after its completion in the individual's home.

It is thus an object of the invention to provide a three-dimensional sculpture which meets all the desirable qualities set forth above.

It is another object of the invention to provide a three-dimensional sculpture which is both relatively easy to construct, and yet permits the sculptor to exercise his individual creative ideas during the construction of the sculpture.

It is yet another object of the invention to provide a three-dimensional sculpture of the type described, in which the construction of the sculpture requires a minimum number of components, and which does not require the use of tools.

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It is still another object of the invention to provide a three-dimensional sculpture of the type described in which the completed sculpture is both highly attractive and sturdy in construction.

In the three-dimensional sculpture of the invention, a frame is formed of a series of interlocking members, each of which has a series of notches or grooves formed along its opposing longitudinal edges. Once the frame is assembled, a string or other suitable filament is passed through selected notches on the several frame members to form a three-dimensional string pattern carried by the frame. The resulting sculpture is highly pleasing aesthetically and substantially sturdy since the string tautly extending between the frame members acts to increase the rigidity and thus the reliability of the frame.

The notched frame members may be, as desired, opaque, translucent, or transparent, and may be tapered or curved rather than rectangular in shape, and the string may be of one color or several strings of different colors may be employed to thereby increase the variety of visual effects that may be afforded by the completed three-dimensional sculpture.

To the accomplishment of the above and to such further objects as may hereinafter appear, the present invention relates to a three-dimensional string sculpture, substantially as defined in the appended claims and as described in the following specification, taken together with the accompanying drawings in which:

FIG. 1 is a perspective view of a completely assembled three-dimensional string sculpture in accordance with one embodiment of the invention;

FIG. 2 is a perspective view of the assembled sculpture in accordance with an alternate embodiment of the invention in which the frame members are tapered or trapezoidal in shape.

FIG. 3 is a perspective view of a completely assembled string sculpture according to another embodiment of the invention in which the frame members are tapered or trapezoidal in shape.

FIG. 4 is a perspective view of an assembled sculpture frame in accordance with a further embodiment of the invention; and

FIG. 5 is a perspective view similar to that of FIG. 4 of an assembled sculpture frame in accordance with still another embodiment of the invention.

The present invention enables any individual possessing even a modicum of manual dexterity and a minimal creative sense to create and construct highly aesthetic works of sculpture which is modern and airy in feeling.

As shown in the embodiment of FIG. 1, the fully assembled three-dimensional sculpture of the invention generally designated 10 includes a polygonal frame 12 upon which a string pattern 14 is wound in any arrangement that is found pleasing to the sculptor. As shown in FIG. 1, frame 12 is formed by interlocking the ends of substantially identical frame members or slats 16, 18, 20 and 22 to form a generally square frame for the sculpture.

Each of slats 16-22, which are rectangular in the embodiment of FIG. 1, has a transverse locking slot formed adjacent each of its ends and extending from one edge of the slot to approximately the central longitudinal axis of the slot. Frame 12 is formed, without the use of fastening elements or adhesives, by fitting the transverse slots of adjacent frame members into one another, as shown in FIG. 1.

Each of frame member 16-22 also includes a plurality of equally spaced notches or grooves 24 formed along the opposite longitudinal edges of the frame member in the region of the frame edge between the transverse locking slots. The depth and width of the notches is sufficient to completely receive therein one thickness of a string

or fiber 26 used to form string pattern 14, as will be described.

Once frame 12 is constructed as described above, a knot or ball is formed at one end of an elongated string or fiber 26, and the knotted end of the string is then fitted and secured into one of the notches on one of the frame members 16-22. The sculptor then passes string 26 either through a notch formed in an edge of another one of the frame members, or over the transverse dimension of the same member and thence through a notch formed in the opposite longitudinal edge of that member.

The string 26 is then passed through other notches in either the same member or in any other members forming the sculpture frame. During this stringing process, the sculptor should preferably make sure that the string is at all times maintained in a taut condition between the frame members until the sculptor achieves a desired string pattern as shown at 14. If desired, the designer may employ a number of different strings in the formation of string pattern 14, the strings preferably being of different colors to provide different visual effects.

After the sculptor has completed the arrangement of the string in the manner described, he may form a knot or ball in the then free end of the string to thereby secure the free end of the string in the frame.

The notches may be tapered rather than rectangular to permit the string to be secured in the notch by a wedging action, thereby eliminating the need for forming the knot at the end of the string. Thereafter, a suitable transparent adhesive may be applied over the edges of each of the frame members to further prevent the loosening of the string from the frame. As shown in FIG. 1, string 26 may be arranged in the three-dimensional pattern 14 within the boundary defined by frame 12 according to the dictates and design goals of the designer. The completed sculpture may then be mounted as shown on a triangular base defined by the extending portions of any of the two adjacent interlocking frame members 16-22, or the completed sculpture 10 may be alternately mounted on a base defined by the extending portions of any two parallel frame members. As an alternative method of display, the assembled sculpture of FIG. 1 may be suspended by a fine wire to accentuate its feeling of lightness and airiness.

FIG. 2 illustrates an alternate construction of the frame here designated 12a in which the interlocking frame members or slats 16a-22a are each tapered or trapezoidal in shape, as opposed to the generally rectangular shape of the interlocking slats in the FIG. 1 embodiment. In all other significant respects, including the formation of the notches or grooves along the opposing longitudinal edges of the slats and the manner in which they are interlocked, the sculpture frame and the manner in which a string is to be wound thereon to complete the sculpture is substantially the same as in the embodiment of FIG. 1. If desired, to provide a different overall visual effect, the slats of the FIG. 2 frame may be made of a transparent or translucent material such as a suitable, rigid plastic. This, of course, applies as well to the frame of the embodiment of FIG. 1, and to the other embodiments of the invention hereinafter described.

FIG. 3 illustrates another embodiment of the invention in which tapered slats 16b-22b are interlocked to form a frame 12b on which the string pattern is formed in substantially the same manner as described above. Frame 12b is formed, in contrast to the embodiments of FIGS. 1 and 2, by inserting the reduced width ends of each of the tapered slats through transverse slits formed centrally in the wider end portion of the adjacent slat until a secure fit is achieved between the slats to form the frame.

The frame 12c as shown in the embodiment of FIG. 4 represents another frame construction for use in the three-dimensional sculpture of the invention. As shown, frame 12c is formed by interlocking generally rectangular slats 16c-22c. Slats 18c and 22c are similar to the slats of

FIG. 1 embodiment in that they each comprise transverse slots near their ends which receive the ends of the adjacent slats. Slats 16c and 20c, however, differ from those previously described in that they are slotted transversely at one end and axially at their other ends. The axial slots permit one of the slats, such as slat 22c in FIG. 4, to be oriented in a plane that is perpendicular to the planes of the other slats forming the sculpture frame, to thereby add to the possible design variations that may be achieved.

A further variation of a frame construction that may be employed as the string sculpture frame is shown in FIG. 5, in which a frame 12d is shown formed by the interlocking of the ends of slats 16c-22d. Slats 18d-22d have axial slots formed at their ends, whereas slats 16d and 20d have transverse slots formed at their ends similar to the slats used in the formation of frame 12 in the embodiment of FIG. 1. The variation in the relative orientation of the locking slots enables the slats at opposite sides of the frame to be oriented in mutually perpendicular planes, to thereby achieve yet a different overall effect to the completed string sculpture.

The present invention thus lends itself admirably to use and construction by even the most rank amateur who has a minimum of mechanical and/or artistic talents, and moreover can be constructed without the use of tools or fastening elements. Despite the relative ease with which it can be constructed, the resulting sculpture is highly attractive and lends itself to a great variety of possible aesthetic effects, as can be determined by the sculptor particularly during the formation of the string pattern. Moreover, since the string is tautly wound on the frame, the aesthetic string pattern provides the additional function of rigidifying and stabilizing the frame.

The sculpture of the invention is preferably sold in the form of a kit containing the frame members and one or more strings. The latter may be sold in different colors, and, as noted above, the slats may be transparent or translucent, and may also be provided in different shades or colors, if desired. Because of the few parts required, each of which is in itself a relatively inexpensive item, the sculpture kit of the invention is well within the economic grasp of almost all individuals who may derive pleasure in both the initial construction of the sculptures, and the many hours of pleasure that can be derived from the appreciation of the finished work.

While several embodiments of the present invention have been herein specifically described, it will be apparent that modifications may be made therein without departing from the spirit and the scope of the invention.

I claim:

1. A three-dimensional sculpture comprising a three-dimensional multi-sided frame including a plurality of rigid tapered frame members, adjacent ones of said frame members having cooperating interfitting means for loosely joining said adjacent frame members to one another, each of said frame members having a plurality of notches of a predetermined dimension formed on one longitudinal edge thereof, and at least one filament dimensioned to enter said notches and to be retained therein, said filament being selectively passed from one frame member through the notches in another of said frame members, said filament being maintained in tension between said frame members, forming a string pattern in three dimensions within the space defined by said frame, and supported by said frame, the tension in said filament being effective to maintain said frame members securely interlocked with one another, said interfitting means comprising a slot formed near the increased width portion of said one frame member for receiving the reduced width portion of an adjacent one of said frame members, to thereby join said one frame member to said adjacent frame member.

2. The sculpture of claim 1, in which said interfitting means comprises a slot formed near at least one end of each of said frame members for interlocking with the

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contiguous side of another of said frame members, to thereby form said frame.

3. The sculpture of claim 1, in which said frame members are translucent.

4. The sculpture of claim 1, in which said frame members are transparent.

5. The sculpture of claim 1, in which said interfitting means includes a transverse slot formed at the ends of each of said frame members.

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