July 17, 1962 H. P. DELIMAL 3,044,199

ORNAMENTAL ASSEMBLY

Filed June 29, 1960

3 Sheets-Sheet 1

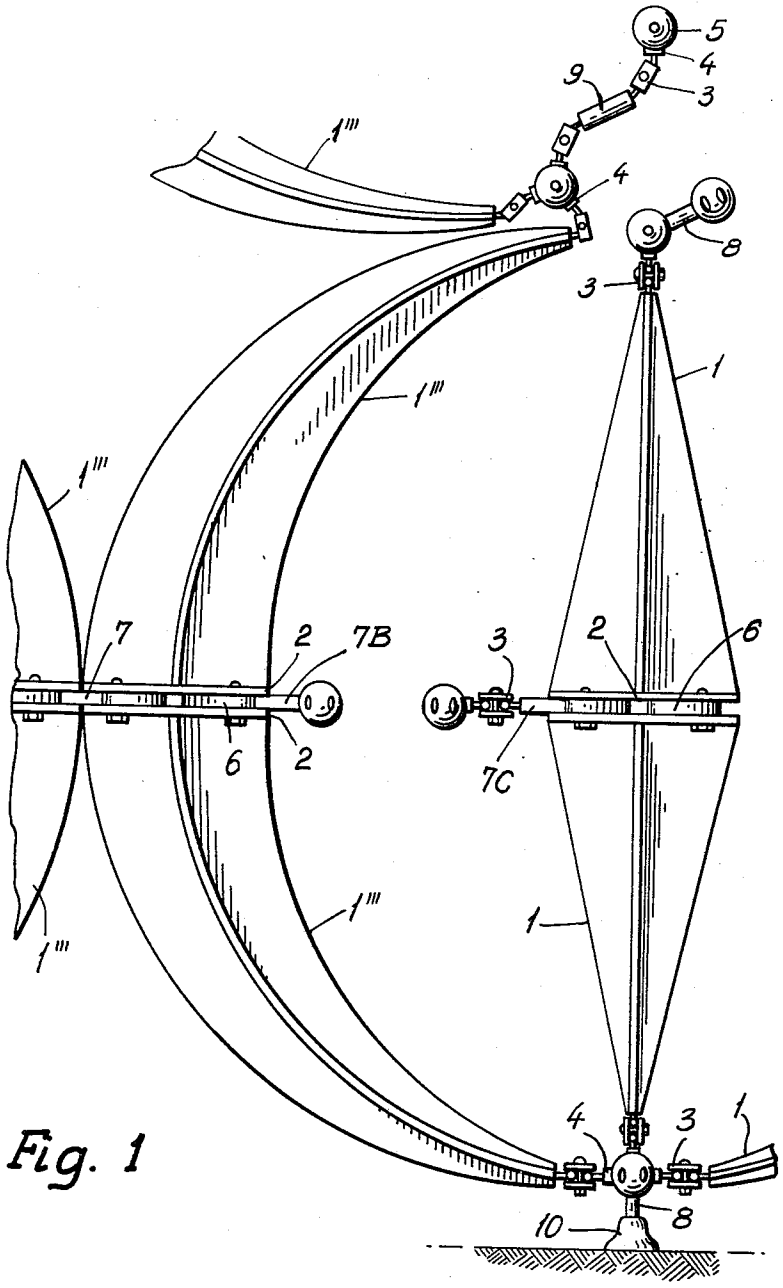


Fig. 1

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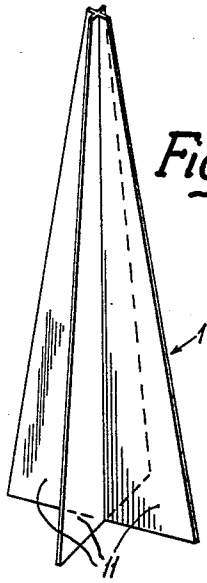


Fig. 2

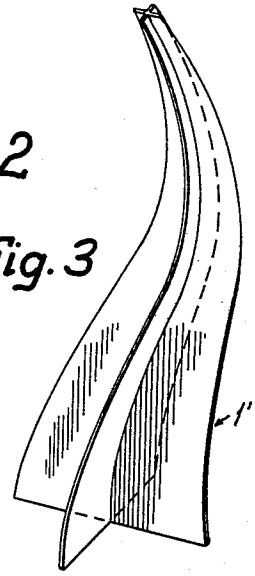


Fig. 3

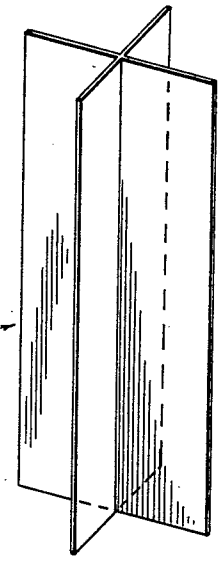


Fig. 4

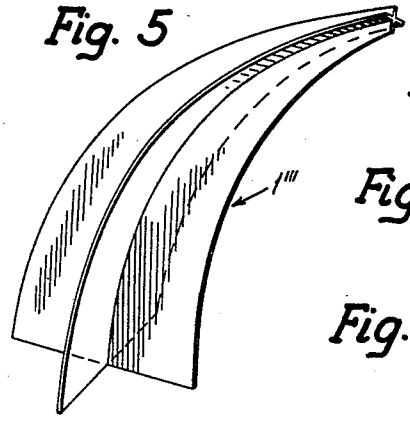


Fig. 5



Fig. 6

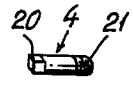


Fig. 7

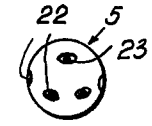


Fig. 8

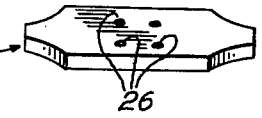


Fig. 11

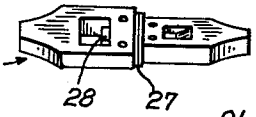


Fig. 11a

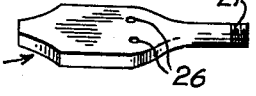


Fig. 11b

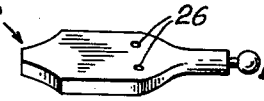


Fig. 11c

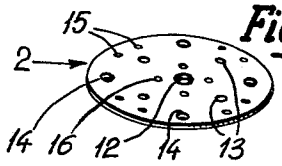


Fig. 9

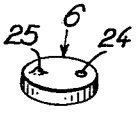


Fig. 10

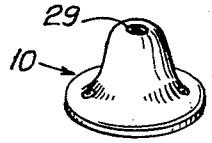


Fig. 14

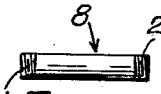


Fig. 12



Fig. 13

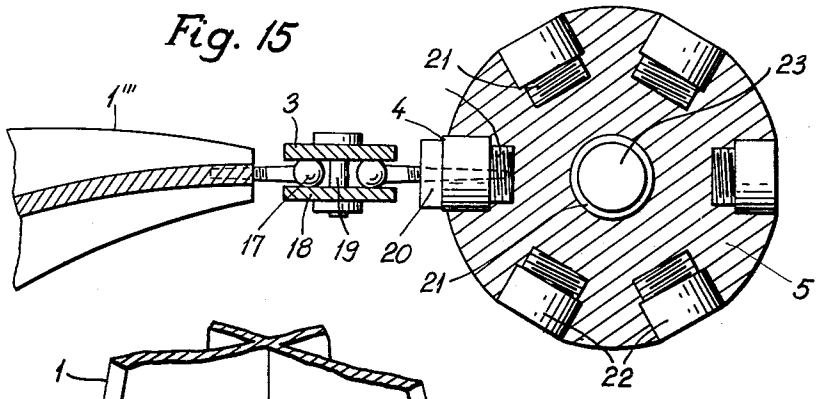
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ORNAMENTAL ASSEMBLY

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Fig. 15



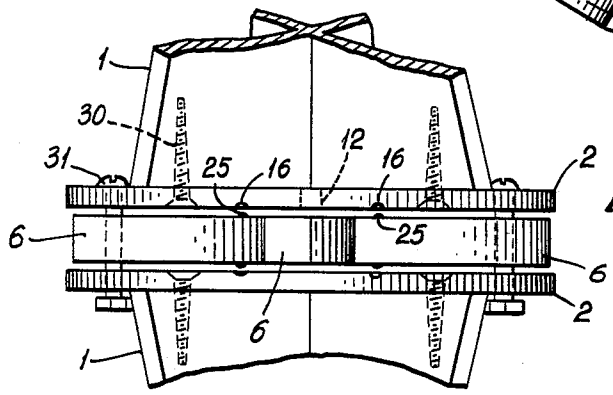


Fig. 16

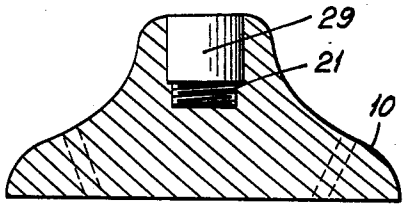


Fig. 18

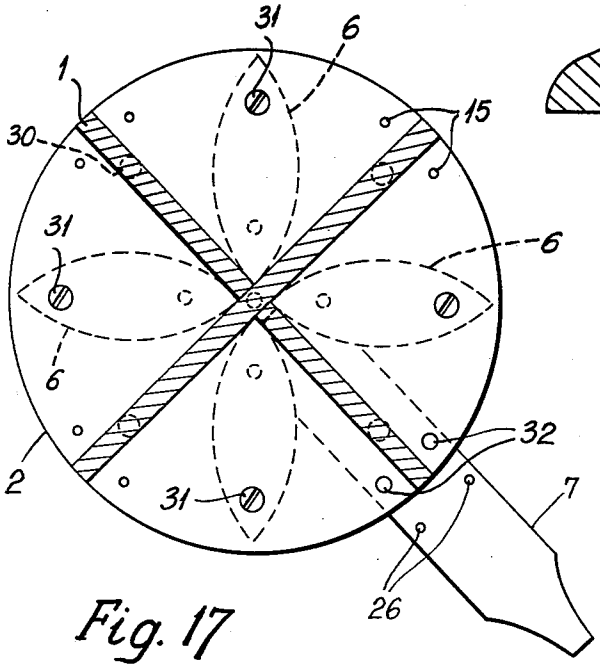


Fig. 17

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United States Patent Office 3,044,199 Patented July 17, 1962

3,044,199

ORNAMENTAL ASSEMBLY

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Filed June 29, 1960, Ser. No. 39,474
7 Claims. (Cl. 41—10)

The present invention relates to a decorating device or ornamenting assembly and has for its main object the provision of such an assembly which can be arranged in an infinite number of patterns or shapes, and adapted to be used in interior decoration, but also and mainly as a decorating and ornamenting item in window displays of stores and the like.

A more specific object of the present invention relates in the provision of a decorative assembly of the character described in which the main decorating elements are interconnected to each other by means of universal joints, and by other means affording angular adjustment of one element with respect to the others, such that when one particular pattern has been used for a certain time, the same decorative elements may be rearranged into an entirely different pattern, so as to constitute a fresh decorative element.

Another important object of the invention resides in the provision of a decorative assembly of the character described which is of relatively simple and inexpensive construction and can be easily assembled into any shape or pattern by persons not mechanically inclined.

The foregoing and other important objects of the present invention will become more apparent during the following disclosure and by referring to the drawings, in which:

FIGURE 1 is an elevation of part of a decorative assembly in accordance with the invention and in which all the constituting elements are shown;

FIGURES 2, 3, 4 and 5 are perspective views of various embodiments of the main ornamenting frames;

FIGURES 6, 7 and 8 are perspective views of three different elements constituting the universal joints;

FIGURE 9 is a perspective view of a base plate;

FIGURE 10 is a perspective view of a spacer block;

FIGURES 11, 11*a*, 11*b* and 11*c* are perspective views of several modifications of link keys used in the assembly of the invention;

FIGURES 12 and 13 are elevations of two types of rods;

FIGURE 14 is a perspective view of the base support or pedestal;

FIGURE 15 is a cross section of the assembled elements constituting a universal joint at the outer end of a frame element;

FIGURE 16 is a partial elevation of an assembled pair of frame elements;

FIGURE 17 is a part plan section of the assembly of FIGURE 16; and

FIGURE 18 is a cross section of the pedestal of FIGURE 14.

Referring now more particularly to the drawings in which like reference characters indicate like elements throughout, the decorative assembly of the invention is essentially composed of frame members selected from one or more of the frame members shown in FIGURES 2 to 5 inclusive, said frame members being interconnected by universal joints and also arranged in pairs and capable of angular adjustment in each pair. Each frame member is essentially constituted by elongated plates secured together at an angle to form radially projecting flanges **11**. The frame members **1** have a straight conical shape having a wide base and a top of restricted area. The frame members **1'** have also a tapered shape, but have a curve S-shaped axis. The frame members **1''** have a uniform cross section throughout their length. The frame members **1'''** have a tapered form but with a curved longitudinal axis. The base end of a pair of oppositely arranged frame members are interconnected in the following manner: Each frame member **1**, **1'**, **1''** or **1'''** has its base end rigidly secured to a disc **2** shown in FIGURE 9, which is thus disposed in a plane at right angles to the axis of the frame member. Each disc **2** is preferably secured to its associated frame member by means of screws **30** (see FIGURE 16) passing through holes **13** made in the disc **2** and threaded within the flanges of the frame member. The discs **2** of the pair of opposed frame members are interconnected by means of bolts and nuts **31** passing through holes **14** in the discs **2** and through holes **24** made in spacer blocks **6** interposed between the two interconnected discs **2**. The spacer blocks **6** have an oval shape and have outwardly projecting bosses **25** adapted to removably engage notches or depressions **16** made in the adjacent face of the discs **2**. As shown in FIGURE 17, the spacer blocks **16** are arranged between the discs **2** at 45° angle with respect to the flanges of the frame members with their inner pointed end in contact with the junction of said flanges. The discs **2** are further provided with a central hole **12** for connection by means of a bolt similar to bolt **30** to the center of decorating frames **1**, **1'**, **1''**, or **1'''**.

Furthermore, the discs **2** are provided with pairs of marginal holes **15** (see FIGURE 9) for removable connection of the assembled pair of discs **2** to a link key **7**, **7***a*, **7***b* or **7***c*. Each of these keys has at least one tapered end with curved sides adapted to be inserted between two adjacent spacer blocks **6**, as shown in FIGURE 17, with their curved sides contacting the curved sides of said blocks. The keys **7**, **7***a*, **7***b* or **7***c* have also through holes **26** for receiving pins **32** passing through the holes **15** of the discs **2** in order to secure the link key in position between the two discs **2** of an assembled pair of opposed frame members.

The link key **7** has two pointed ends and two pairs of holes **26** to interconnect two adjacent base ends of two pairs of assembled frame members. FIGURE 1 shows such an arrangement at the left hand side wherein a portion of a pair of frame members **1'''** is shown connected at its base by a link key **7** to an adjjacent pair of frame members **1'''**. It will be noted that the link key **7** may be connected to the opposed discs **2** of a pair of frame members in any one of four angular positions between the spacer blocks **6** so as to enable variation of the angular directions of the frame members of one pair with respect to an adjacent pair connected thereto. When a pair of opposed curved frame members such as frame members **1'** or **1'''** are used, their angular relationship may be also varied by rotating the discs **2** with respect to each other and re-assembling the same by means of bolts **31**.

The link key **7***a* is made of two parts which are pivotally interconnected by means of two washers **27** and stud bolt **28** which serves as a pivot and may be tightened by a nut. Otherwise, this linking key has two tapered ends as link key **7**. Link key **7***a* enables pivotal adjustment of two pairs of assembled frame members about an axis parallel to a diameter of the discs **2**.

Link key **7***b* has a tapered end while its opposite end is terminated by a cylindrical threaded portion **21** for threaded engagement with a sphere **5** to be described hereinafter.

Link key **7***c* has a tapered end while its opposite end is terminated by a round head for connection to a universal joint to be described hereinafter.

The top or outer free ends of the pairs of assembled frame members are interconnected to adjacent pairs by

means of universal joints which consist of universal couplings 3, spheres 5 and other elements, when needed and described hereinafter. Couplings 3, shown in FIGURES 6 and 15, each comprise two bolts 17 with rounded or spherical heads interposed between two clamping discs 18 which are interconnected and tightened together by means of bolt and nut 19 passing through discs 18. Preferably, the inside faces of the discs 18 are grooved to receive the spherical heads of the bolts 17. One bolt 17 is adapted to be screwed into the outer end of the frame member 1, 1', 1'' or 1''' while the other bolt can be screwed into a locking bushing 4 having a threaded end 21 engageable with the threads made at the bottom of radial bores 22 opening at the periphery of a sphere 5 which has a central through bore 23. The bushing 4 has a square outer end 20 for tightening said bushing in bore 22. The sphere 5 thus serves as a central connecting point for the outer ends of several pairs of frame members 1 through the means of the universal couplings 3.

The bores 22 can threadedly receive an extension rod 8, as shown in FIGURE 12, for connecting two spheres 5 together as illustrated in FIGURE 1. Similarly, an extension rod 8 is used to connect a sphere 5 with the bore 29 of the pedestal 10, said bore 29 having also a threaded bottom portion 21, as shown in FIGURE 18.

If desired, two universal couplings 3 may be directly interconnected by means of a connecting rod 9, shown in FIGURE 13 and at the top of FIGURE 1. In that case, one of the spherical head bolt 17 of each coupling is removed and the couplings engaged with the rounded terminal heads of the rod 9.

FIGURE 1 shows part of an ornamental assembly made of the constituting elements just described, frame members 1 and 1''' being used.

It will be clearly apparent from the foregoing that a great number of different patterns may be obtained using the elements of the invention, due to the presence of the universal joints at the outer ends of the pairs of assembled frame members, and due to the fact that the angular relationship between two curved frame members 1' or 1''' may be varied and that the angular relationship between two interconnected pairs of opposed frame members may also be varied in accordance with the position of the link keys 7. Finally, the perpendicular inclination of two interconnected pairs of frame members may be also varied using the link key 7*a*.

While a preferred embodiment in accordance with the present invention has been illustrated and described, it is understood that various modifications may be resorted to without departing from the spirit and scope of the appended claims.

What I claim is:

1. A decorative assembly comprising a series of pairs of ornamental flanged frame members of elongated shape and having a curved axis, each frame member having a base and a top with its flanges tapering from said base to said top, a disc secured to the base of each frame member, spacer blocks, the discs of the frame members of each pair being interconnected with the interposition of said spacer blocks, means for securing said discs and spacer blocks in angularly adjustable position of one frame member with respect to the other of each pair, link keys inserted between said assembled discs and said spacer blocks for interconnection of one pair with another pair of frame members, universal joints interconnecting the tops of adjacent frame members, and a pedestal adapted to be secured to the ground and to which one of said universal joints is connected for supporting the decorating assembly.

2. A decorative assembly as claimed in claim 1, wherein said spacer blocks have an oval shape and said link keys have a tapered end for insertion between two adjacent spacer blocks.

3. A decorative assembly as claimed in claim 2, wherein the other end of said links keys is terminated by a spherical head.

4. A decorative assembly as claimed in claim 2, wherein the other end of said link keys is terminated by a threaded cylindrical portion.

5. A decorative assembly as claimed in claim 2, wherein said link keys are each constituted by two interconnected parts pivotable about the longiutdinal axis of the key.

6. A decorative assembly as claimed in claim 1, wherein said universal joints comprise two elongated members with spherical heads at one end, two plates between which said spherical heads are pivotally mounted and a bolt connecting said two plates for adjusting the pressure between the plates and the spherical heads.

7. A decorative assembly as claimed in claim 6, wherein said universal joints further comprise a sphere provided at its periphery with radial bores having inner threads and means for securing a member with spherical head in any one of said bores of said sphere.

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