Feb. 18, 1936. M. D. SMITH 2,031,231

COLLAPSIBLE WIRE ARTICLE

Filed March 29, 1934 2 Sheets-Sheet 1

Fig. 1

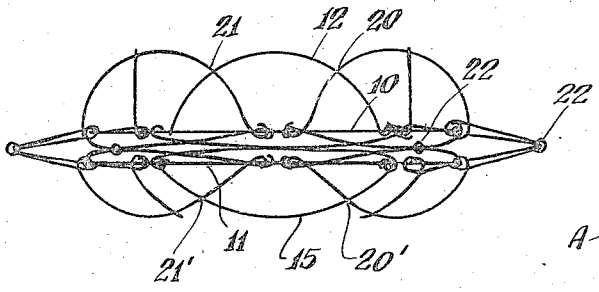


Fig. 2

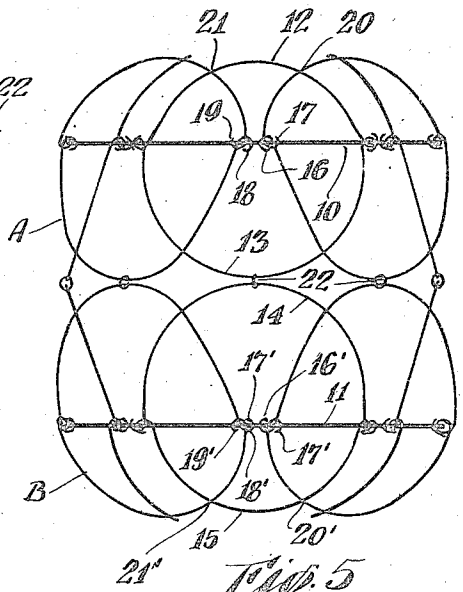


Fig. 3

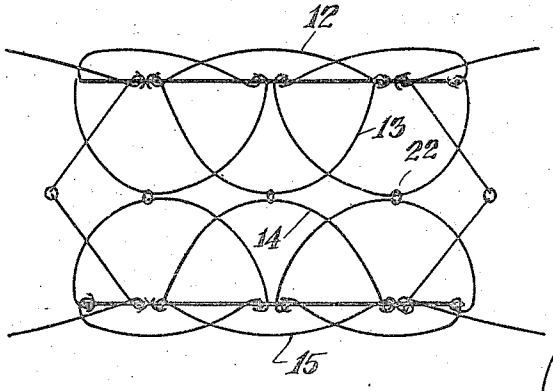


Fig. 4

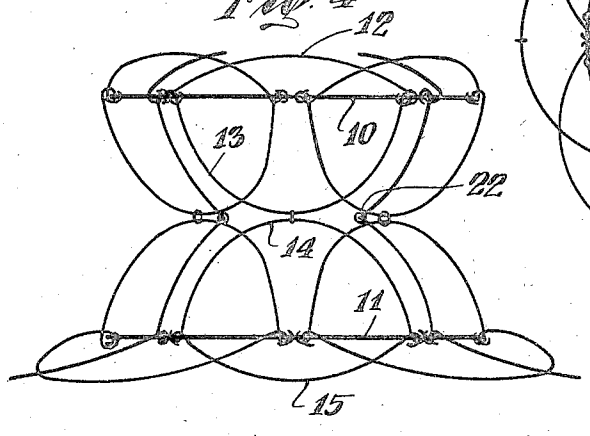
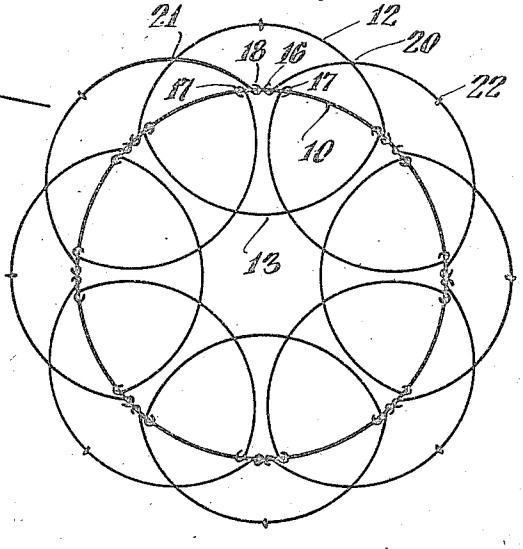


Fig. 5



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Feb. 18, 1936. M. D. SMITH 2,031,231

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Filed March 29, 1934 2 Sheets-Sheet 2

Fig. 6

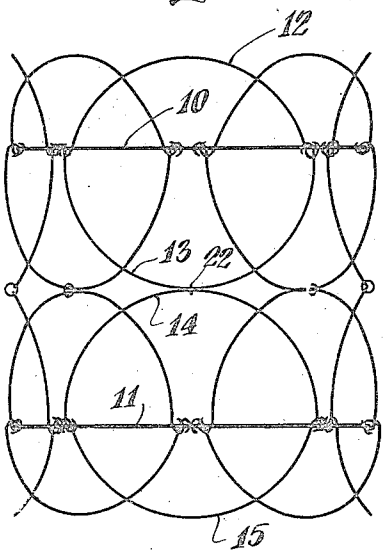


Fig. 7

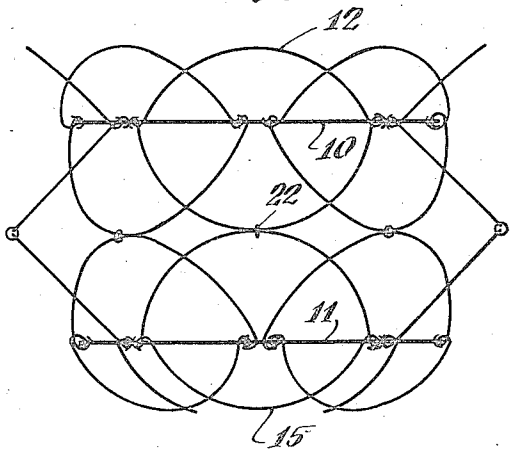


Fig. 8

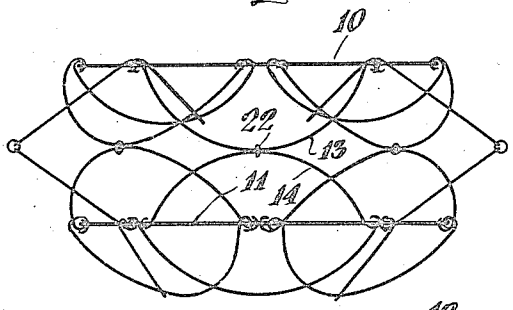


Fig. 9

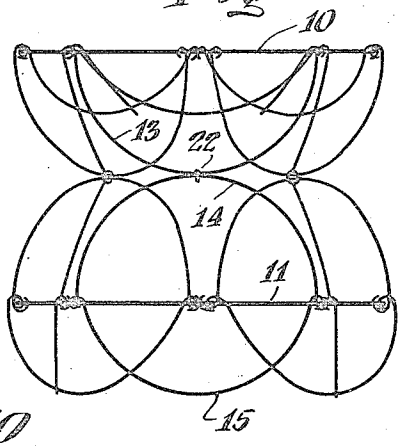
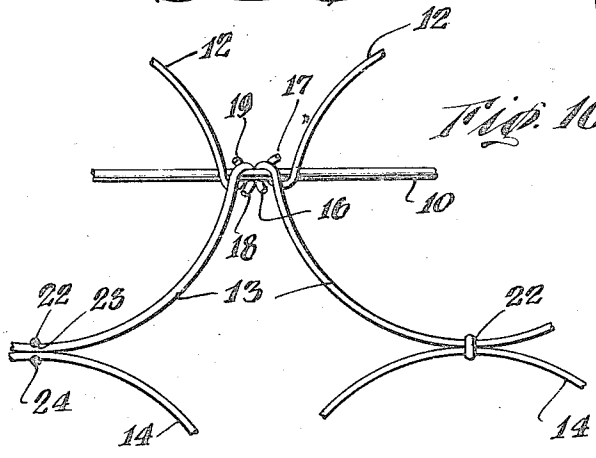


Fig. 10



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Patented Feb. 18, 1936

2,031,231

UNITED STATES PATENT OFFICE

2,031,231

COLLAPSIBLE WIRE ARTICLE

Manville D. Smith, New York, N. Y.

Application March 29, 1934, Serial No. 717,959

1 Claim. (Cl. 245—1)

This invention relates to improvements in wire articles, particularly to a wire article to be used for numerous useful purposes, as a receptacle, as an ornament, a puzzle, for use on bracelets, crystal bubble ball holders, or the like, and it is the principal object of my invention to provide such an article composed of a plurality of readily contortible, similar units cheaply to manufacture and one which can be conveniently folded into a flat body easily to be stored or transported.

Another object of my invention is the provision of a contortible and collapsible wire article, the single units of which are interconnected by simple means, while the elements or members composing each unit are connected by rings engaged by the eye shaped ends of each of the members arranged in close juxtaposition.

Still another object of my invention is the provision of a wire article which can readily be twisted into a plurality of shapes so that for instance one-half the members forming one of the units are angularly disposed to the other half so as to form the foot parts for the vase or basket shaped parts of the units.

A further object of my invention is the provision of an ornamental collapsible and contortible wire article the units of which may form a closed wire cage, one-half of the elements of each unit forming the top and bottom part of the cage respectively.

A still further object of my invention is the provision of a contortible wire article as described composed of sets of movable substantially semi-circular members arranged in such manner that the motion of one member of each set will operate to move also the other members of this set while the connection between the single units will permit a contortion of the article into numerous shapes and a collapsing of the same.

These and other objects of my invention will be more fully described with reference to the drawings and will then be specifically defined in the appended claims.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a side elevation of a wire article constructed according to my invention, collapsed.

Fig. 2 is a side elevation of the device extended.

Fig. 3 is a side view of the article, partly collapsed.

Fig. 4 is a view in side elevation showing the article substantially in basket form with a foot part.

Fig. 5 is a top plan view of the article collapsed.

Figs. 6, 7, 8 and 9 are side elevations of a variety of different forms into which the wire article may be shaped.

Fig. 10 is a detail view on a somewhat enlarged scale illustrating the various methods of connecting the wires forming the article.

Like characters of reference indicate corresponding parts throughout the several views.

As illustrated, the article formed according to my invention is composed mainly of two units A and B respectively, the central parts of which constitute the wire rings 10 and 11 about which the substantially eye-shaped ends of the various elements forming the units are twisted or guided.

These elements have each substantially semi-circular shape, and the outer and inner elements of unit A are designated 12, 13 and for the unit B are designated 14, 15 respectively and are arranged in close proximity on each of the rings 10 and 11 respectively so as to be movably connected thereto as indicated at 16, 17, 18 and 19, and 16', 17', 18' and 19' for the units A and B respectively.

The connections 16, 18 and 16', 18' for the inner sets of semi-circular elements of the units A and B being within the connections for the outer sets 17, 19, 17', 19', and the semi-circular elements of each set intersect the next adjoining elements as indicated at 20, 21, 20', 21'.

The apexes of the inner sets of semi-circular elements or members of units A and B are connected at their meeting points by rings 22, and for the purpose of more securely holding these rings in place, the material of the rings 13, 14 may be suitably notched, as indicated at 23, 24 in Figure 10.

In use, the movable connections between the rings of each unit and the sets of semi-circular members of each unit as well as the interconnection of the inner sets of members of each unit and the intersection of the single members of each set of members of the units intermediate their ends, will compel all the members of one set to participate in the movement of one member of each set. The rings connecting the apexes of the inner members of each unit are securely held in their position by the notches in the adjoining members.

It will be understood that I do not wish to limit myself to the specific forms illustrated in the drawings into which my article can be formed and to the particular uses mentioned but mean to cover by my invention any and all other forms and purposes into which the article may be shaped, as I have only disclosed by way of example some of these forms and that I may make such changes

in the general arrangement of the article and in its particular uses as well as construction of its minor details as come within the scope of the appended claims without departure from the spirit of my invention and the principle involved.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

In a collapsible and contortible wire article, a pair of units, a ring for each unit, inner and outer sets of substantially semi-circular members for each unit the ends of each of the members movably connected to the respective ring of its unit, the ends of the wires forming the inner sets overlapping the ends of the wires forming the outer sets at their places of connection with the respective ring, and the adjoining apexes of the inner members of each unit notched, and rings in the notches movably connecting the inner members of each unit to permit a ready contortion of the article into numerous shapes and collapsing of the same.

MANVILLE D. SMITH.