April 26, 1932. S. M. MAIN 1,855,719

METAL VASE

Filed Jan. 17, 1930

Fig.1

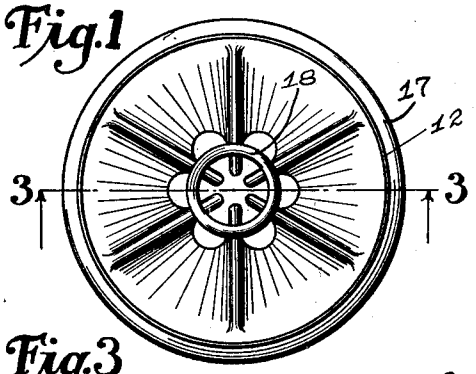


Fig.2

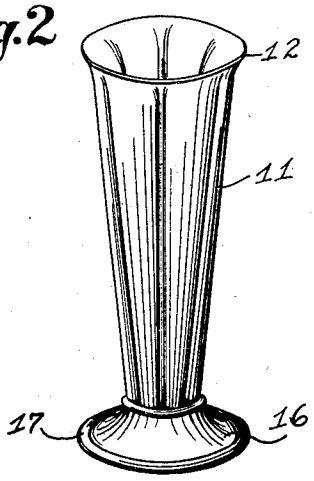


Fig.3

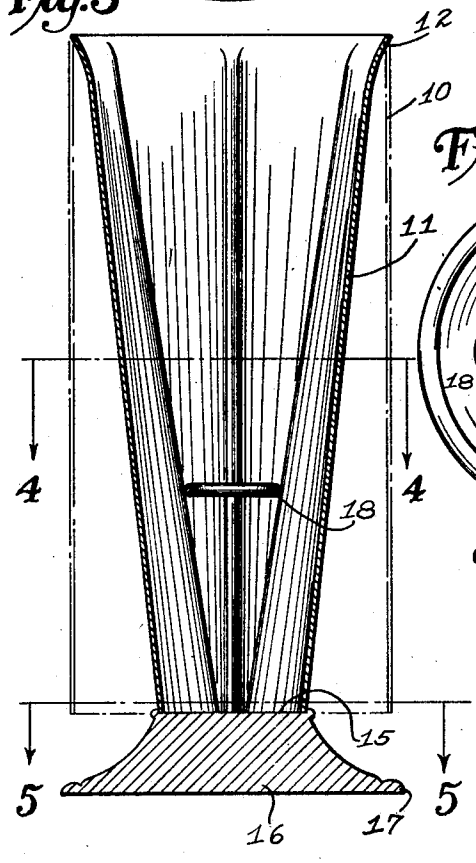


Fig.4

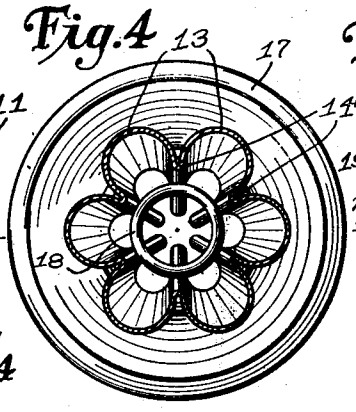


Fig.6

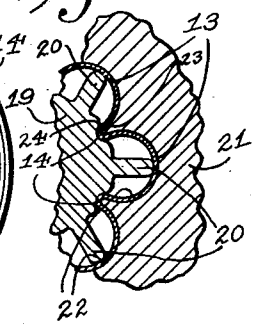
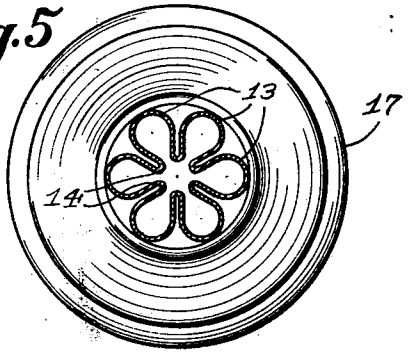


Fig.5



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UNITED STATES PATENT OFFICE

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METAL VASE

Application filed January 17, 1930. Serial No. 421,578.

This invention relates to vases, and more particularly to a vase body made from a smooth cylindrical metal tube by forcing said tube inwardly at a plurality of points around its circumference to form a series of folds.

One object of the invention is to provide a vase body of the above nature which tapers inwardly from top to bottom and which is connected at the bottom to a flat base as by soldering to form a complete vase.

A further object is to provide a vase of the above nature, the upper body section of which is formed by placing a tube of metal over an interior peg having a series of spaced radially extending vanes corresponding with the number of folds to be produced, and then moving an outside die down over said tube to force the metal thereof inwardly between said vanes, said outside die having the exact shape of the desired exterior contour of the finished vase body.

A further object is to provide a vase of the above nature in which an interior ring is provided within the body and is secured to the folds thereof, whereby a permanent symmetrical arrangement of the flower stems of a bouquet may be maintained.

A further object is to provide a vase of the above nature which will be simple in construction, inexpensive to manufacture, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view there has been illustrated on the accompanying drawings one form in which the invention may be conveniently embodied in practice.

Fig. 1 represents a top plan view of the complete vase;

Fig. 2 is a perspective view of the same;

Fig. 3 is a vertical longitudinal sectional view of the same taken along the line 3—3 of Fig. 1, looking in the direction of the arrows;

Fig. 4 is a transverse sectional view of the vase taken along the line 4—4 of Fig. 3, looking downwardly;

Fig. 5 is a similar transverse sectional view of the same taken along the line 5—5 of Fig. 3, looking downwardly; and

Fig. 6 is a fragmentary sectional view of a portion of the interior peg and the exterior die employed in the process of forming the conical vase body.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 (Fig. 3) indicates in dotted lines the original shape of a cylindrical metal blank from which the vase body is produced. The numeral 11 indicates in full lines the final outline of the fluted tubular vase body, which as shown, is provided with an outwardly-flared unfluted top portion 12. The base body has a plurality of substantially circular outer folds 13 connected together by an equal number of inwardly-extending pointed folds 14, said body being tapered inwardly from top to bottom. The bottom of the vase body 11 is adapted to be secured, as by soldering, within a flat seat, socket, or recess 15 in a solid substantially conical base 16 having an outer rim 17.

In order to hold the stems of the flowers of a bouquet in a fixed symmetrical position in the vase, provision is made of an interior wire ring 18 secured to the inner pointed folds 14, as by soldering, and preferably located about two-thirds of the way down the height of the vase body 11.

Process of making the vase body

The first step in the process of making the above-described vase body comprises taking a smooth cylindrical hollow metal blank 10 and placing it around the outside of a peg 19 having a plurality of vanes 20. The vanes 20 have parallel flat sides and rounded outer edges for supporting the outer folds of the vase body during the forming process. An exterior die block 21 having a plurality of tapered channeled recesses 22, shaped in conformity with the final exterior shape of the vase body 11, will then be moved downwardly around said blank in a press, and the metal of said blank will be forced inwardly by the relatively sharp ribs 23 between said vanes 20 to form the inside pointed folds 14 of the vase body 11.

In order to form a support for said inside

pointed folds 14 of the vase, provision is made of a plurality of grooves 24 located midway between each adjacent pair of vanes 20. It will thus be seen that during the process of constructing the vase body 11, the exterior surface of the tubular blank 10, from which it is formed, contacts at all points with the outer die block 21, whereas the inner surface of the blank is unsupported except at the vanes 20 and the grooves 24 respectively of the inner peg. The outer die block and inner peg are preferably, but not necssarily, mounted on the cooperating parts of a controlled-motion press.

One advantage of the present invention is that the vase lends itself to attractive metal finishes due to the symmetrical arrangement of the folds and depressions.

A further advantage is that a conical vase may be produced with the expenditure of considerably less labor and expense, than was required by the former methods of spinning and drawing.

It will be understood that the present invention is not to be limited to conical metal vases, but also covers other hollow metal tubular articles, such as pedestals, lamp-bases, furniture legs, standards, columns, etc., within its general spirit and scope.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a vase, a base section having a recessed seat, a fluted tubular body section having its lower end located in said seat, said body section being tapered inwardly from top to bottom, and having a ring joined to the interior thereof to retain the stems of flowers permanently in the recesses of said fluted body section.

2. In a vase, a base section having a seat, a fluted tubular body section having its lower end located in said seat, said body section being tapered inwardly from top to bottom, and having an outwardly flared unfluted upper extremity.

3. In a metal vase, a vase section having a central socket, and a fluted tubular body section having its lower end located in said socket, said body section terminating in an integral unfluted upper rim.

4. In a hollow article, a tubular sheet of metal having a plurality of symmetrically-spaced substantially-circular outwardly-extending folds, each pair of adjacent circular folds being connected by a pointed inwardly-extending fold, said sheet terminating in an integral unfluted upper rim.

5. In a vase body, a tubular generally-conical sheet of metal having a plurality of symmetrically-spaced substantially-circular outwardly-extending folds, each pair of adjacent circular folds being connected by an inwardly-extending fold, said sheet terminating in an integral unfluted upper rim.

6. In a vase body, a tubular generally-conical sheet of metal having a plurality of symmetrically-spaced substantially-circular outwardly-extending folds, each pair of adjacent circular folds being connected by a pointed inwardly-extending fold, the interior edge of each pointed fold lying in a straight line, said sheet terminating in an integral unfluted upper rim.

7. In a vase body, a tubular generally-conical sheet of metal having a plurality of symmetrically-spaced substantially-circular outwardly-extending folds, each pair of adjacent circular folds being connected by a pointed inwardly-extending fold, the exterior edge of each circular fold lying in a straight line, said sheet terminating in an integral unfluted upper rim.

8. In a metal vase, a base section having a central socket, a fluted tubular body section having its lower end located in said socket, and having a ring joined to the interior thereof to retain the stems of flowers permanently in the recesses of said fluted body section, said body section terminating in an upper unfluted circular rim.

9. In a hollow body, a tubular conical sheet of metal having a plurality of connected spaced-outwardly-extending circular folds, said sheet terminating in an integral unfluted upper rim.

In testimony whereof, I have affixed my signature to this specification.

SAMUEL MERWIN MAIN.