

(No Model.)

4 Sheets—Sheet 1.

A. WANNER, Jr.
ORNAMENTAL SHEET METAL HOLLOW WARE.

No. 533,765.

Patented Feb. 5, 1895.

Fig. 1.

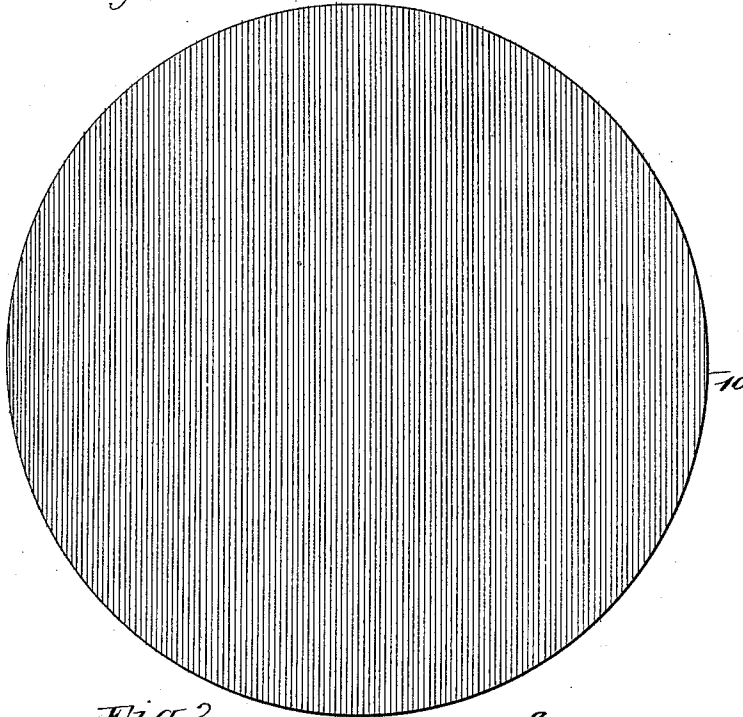
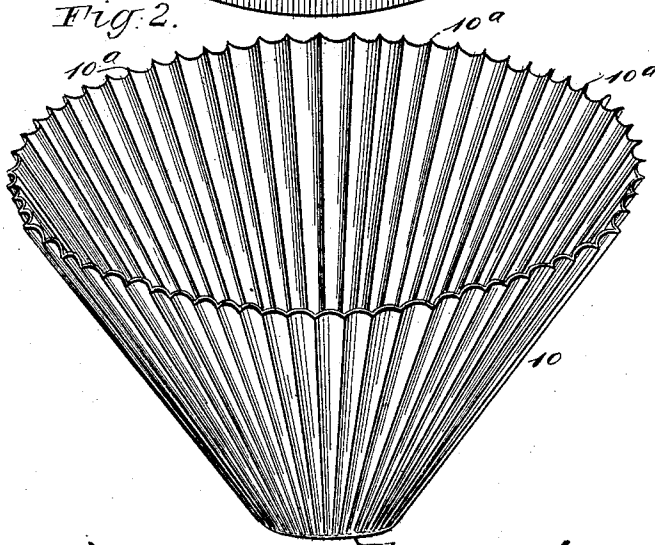


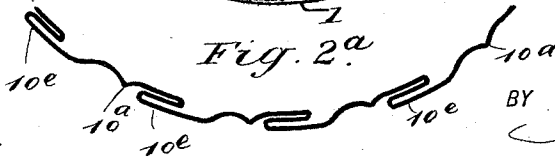
Fig. 2.



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Fig. 2a



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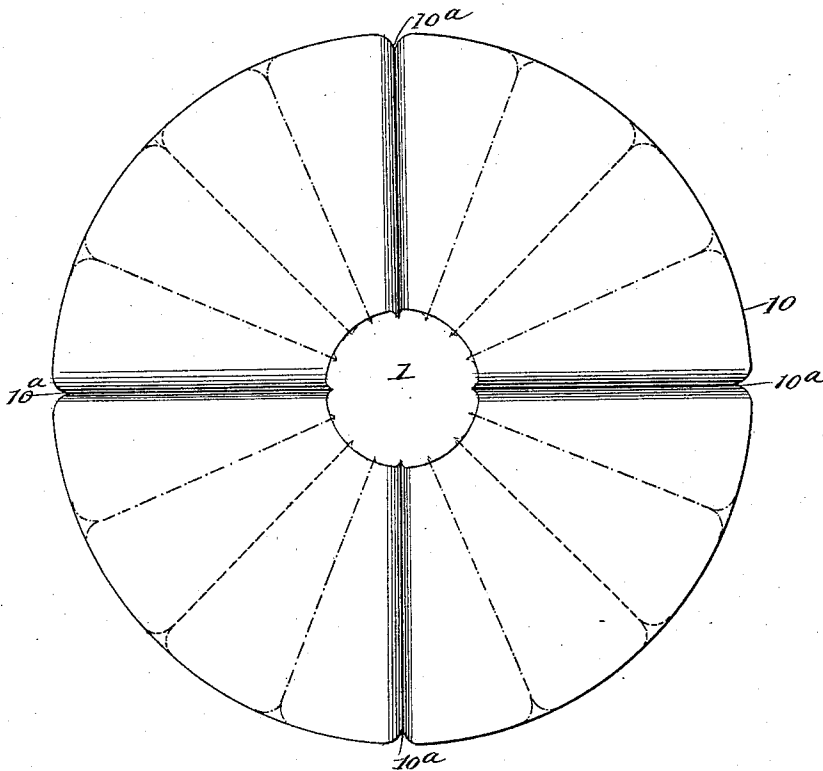
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Fig 1a



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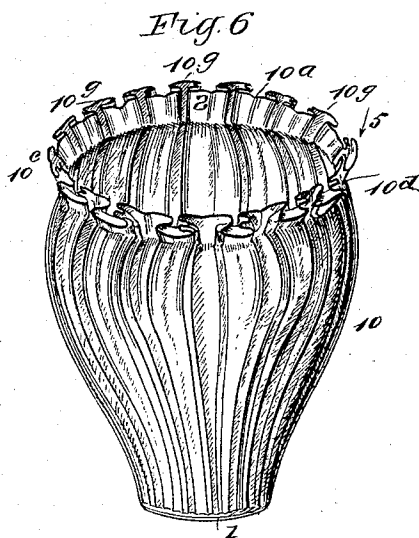
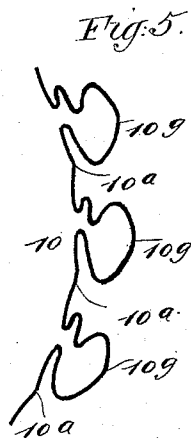
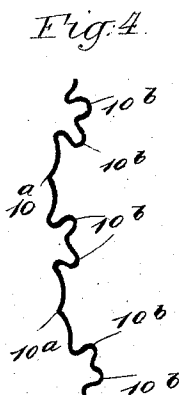
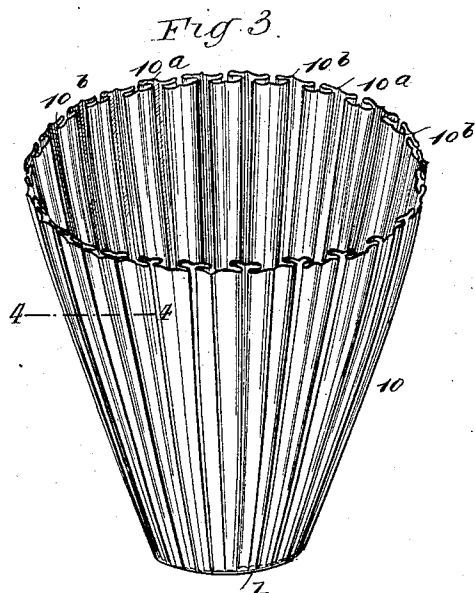
(No Model.)

4 Sheets—Sheet 3.

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ORNAMENTAL SHEET METAL HOLLOW WARE.

No. 533,765.

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4 Sheets—Sheet 4.

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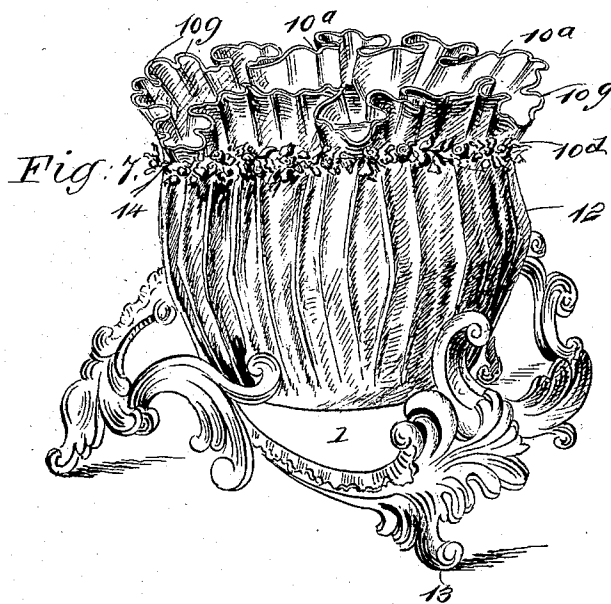
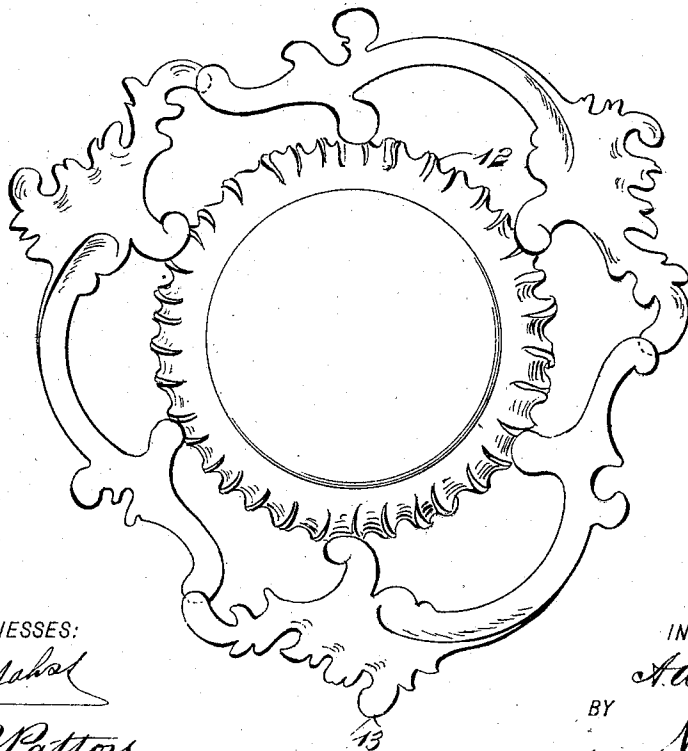


Fig. 8.



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UNITED STATES PATENT OFFICE.

ALBERT WANNER, JR., OF HOBOKEN, NEW JERSEY.

ORNAMENTAL SHEET-METAL HOLLOW WARE.

SPECIFICATION forming part of Letters Patent No. 533,765, dated February 5, 1895.

Application filed March 27, 1894. Serial No. 505,275. (No model.)

To all whom it may concern:

Be it known that I, ALBERT WANNER, Jr., of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Ornamental Sheet-Metal Hollow Ware, of which the following is a full, clear, and exact description.

My invention is an improvement in articles of sheet metal hollow ware and has for an object to provide a simple, inexpensive and highly ornamental article such as a vase or the like adapted for flower holders, *recherché* receptacles for jewelry and toilet materials, as well as for cabinet adornment, and the invention consists in the novel construction, combination and arrangement of parts hereinafter described and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views shown.

Figure 1 is a side view of a circular sheet metal planchet from which the ornamental receptacle is to be produced. Fig. 1^a is a plan-view of the planchet after it has partly undergone the first stage of constructive manipulation. Fig. 2 is a perspective view of the planchet after it has undergone the first step in the manipulatory process for the manufacture of a piece of sheet metal hollow-ware. Fig. 2^a is an enlarged top edge view of the material for a vase, after it has passed through the second stage of the manual process. Fig. 3 is a perspective view of the incomplete vase, after it has changed form the third time. Fig. 4 is an enlarged sectional plan view of a portion of the unfinished vase body, taken on the line 4—4 in Fig. 3. Fig. 5 is an enlarged top view of a portion of the upper edge of the finished vase, seen opposite the arrow 5, in Fig. 6. Fig. 6 is a perspective view of one form of the improvement completed, after receiving the finishing constructive manipulation in the process of manufacture. Fig. 7 is a perspective view of a modified form of the improvement, connected with an ornamental base support; and Fig. 8 represents a reverse plan view of the parts shown in Fig. 7, showing the surface configuration of the vase in its modified form.

My improved hollow ware vase or article is

composed of a flat bottom part 1, a side formed with plaits 10 loosely folded as distinguished from being creased tightly together, and such plaits are incurved near the top of the vase forming a neck, such neck being surrounded by a band or wreath like annulus, and the portions of the vase above the said neck are formed with outwardly flared outer portions 10^g, and with inner portions 2, these latter being in the nature of flattened segments combining to form a circle whose axis is concentric with the base. (See Fig. 6.) The vase body also has an attached base piece or frame 13 which supports it as shown most clearly in Figs. 7 and 8. These constructions will be more fully described in the following description which will also describe the preferred mode of making the improved article.

Referring to the drawings, 10 in Fig. 1, represents a flat circular thin sheet metal planchet, the diameter of which is proportioned to the size of the hollow-ware article which is to be formed from it.

The first step in the formation of an ornamental vase having the features of improvement, and in this representation an ovate-cylindrical body with a flaring ruffled top, consists in the production on the side of the planchet 10, that is the inner surface of the vase, of an evenly spaced series of radial indents 10^a, shown in Fig. 2. The depressions 10^a are graded in depth, commencing at the margin of an imaginary circle that is of a suitable radius to afford the desired area for the bottom wall of the vase, these inner points for the indents being comparatively shallow, and regularly increasing in depth to the periphery of the planchet.

As represented in Fig. 2, the production of the indents 10^a by any proper tool, preferably a metal blade of acute V-form in cross section, that loosely fits in a V-channelled block or bed piece, which by pressure or blows with a hammer applied to said tool contracts the material so as to produce a cup, flaring in the side wall, and leaving the latter covered with upright flutes that regularly converge toward their lower ends an equal degree as shown in Fig. 2, the indentation of the planchet which is a very essential part of the peculiar manipulation being indicated in Fig. 1^a. The next step in the process of formation, re-

quires the use of an ordinary pair of pliers, having round jaws that are of considerable length and tapered toward their points as usual. The operator grasps the hollowed material shown in Fig. 2, and applies the round 5 nibs of the pliers to the scalloped surface of the sheet metal body at even intervals, bending the material toward the center of the coniform vessel an even distance from the free 10 edge, equal to the length of the plier jaws. These depressions are produced in pairs as shown at 10^b, in Fig. 4, allowing the intervening pair of scallops 10^a to remain projected, as represented clearly in the same figure, 15 thus producing alternating series of longitudinal depressions and projections on the surface of the incomplete vase. So far, the hollow piece is flared toward the upper end, but is constricted in diameter by the manipu- 20 latory operation effected with the pliers, and now presenting the appearance indicated in Fig. 3.

In order to produce the pear-shaped form characteristic of the finished vase represented 25 in Fig. 6, the operator places the side wall of the hollow-ware piece over a stationary mandrel of a cylindric form and rounded free end, which is horizontally projected from a bench or other fixed support, the mandrel being in- 30 troduced in the vessel, so that the side wall of the latter may be imposed on it near its outer end.

There is a correct degree of inclination given to the sheet metal piece, so as to seat the side 35 wall of the same firmly on the mandrel near the edge of said vessel, and while the operator maintains the article in place with one hand, he applies a hard mallet or hammer with repeated blows upon the plicated material so as to flatten it, causing the folded metal 40 to assume the appearance indicated in Fig. 2^a. The peen of the hammer is also used to circumferentially crease the material on the outer surface at a correct and equal distance 45 from the top edge, while said edge is rested on the mandrel and the body is slightly elevated therefrom, which will produce a flaring border 10^c.

The contraction of the folded material as 50 explained, and the flaring projection of the edge portion 10^c, affords a neck 10^d, that may be made of any suitable length by a proper manipulation, as described. It will also be seen, that the hammering of the material to 55 form the neck 10^d, so curves the side wall of the vase below the neck, that a bulbous or ovate form is produced, which may be varied in degree and so alter the form of the structure, as is shown in the vases represented in 60 Figs. 6 and 7.

To finish the border 10^c, and give to it a ruffled appearance, barrel nibbed pliers are employed to open the flat folded portions 10^e, 65 shown in Fig. 2^a, so as to give them substantially the shape indicated in Fig. 5, at 10^e, this operation of opening the loops tending to pro-

ject outwardly and downwardly the parts so treated, conferring upon the border an easy flowing ruffled form, that is a close simulation of a like effect produced in silk goods, or other 70 fine fibrous fabric.

As before mentioned, the style of constructive detail may be considerably varied within the scope of the invention, as by giving the piece of hollow-ware a bottom of larger di- 75 ameter in proportion to its height a fancy sheet metal vessel of jar form results, this form of the vase being clearly shown at 12, in Fig. 7; and as an ornamental adjunct a wreath-like base 13 may be supplied, which 80 is specially appropriate for this form of vase. The neck of the vase may be concealed by a metallic wreath 14, if this is preferred.

To finally complete the improved hollow-ware, the metallic structure is preferably 85 cleansed by acid baths in the usual way, and plated with either gold, silver or bronze dips, that are prevented from tarnishing by a hard enamel varnish used for such a purpose, the completed articles presenting a rich, costly, 90 and chaste appearance, being suitable as an adjunct to other high art toilet accessories, or mantel bric-a-brac.

Having thus fully described my invention, I claim as new and desire to secure by Letters 95 Patent—

1. A hollow sheet metal article, substantially as herein described having its sides formed in plaits extended approximately parallel to each other and to the axis of the article and made in loose open folds as distinguished from being creased tightly together, said folds gradually increasing in width and flaring outward from the lower end of the article upward and incurved to a point a short 100 distance below their upper ends forming a neck, the portions above said neck being formed with outer portions flared and ruffled, forming an exterior ruffle border, and inner segmental sections or portions combining to 105 produce an approximately circular form concentric with the body of the article, all substantially as and for the purposes set forth.

2. As an improved article of manufacture, a sheet metal vase having its sides formed 115 with a series of parallel open rounded plaits or folds, and gradually increasing in diameter from its bottom toward its top, such plaits being incurved near their upper ends forming a neck, and the plaits above said neck 120 being formed with outer flared and ruffled portions and inner segmental sections combining to produce an approximately circular form, the band or wreath like annulus surrounding the neck of the vase and the scroll 125 like frame attached to the lower end of and forming a base for the vase, all substantially as and for the purposes set forth.

ALBERT WANNER, JR.

Witnesses:

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F. W. HANAFORD.