E. BLASS.

EARTHENWARE VESSEL.

APPLICATION FILED APR. 25, 1916.

1,238,092.

Patented Aug. 28, 1917.

2 SHEETS—SHEET 1.

Fig. 2.

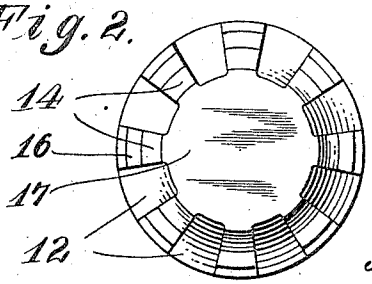


Fig. 10.

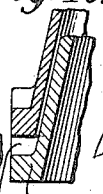


Fig. 9.

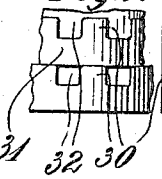


Fig. 8.

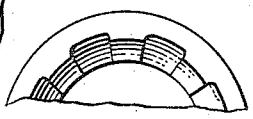


Fig. 3.

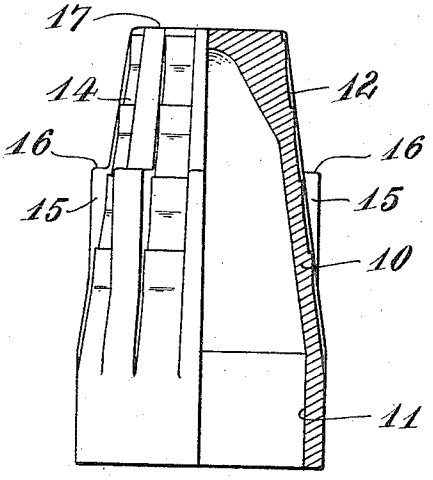


Fig 1.

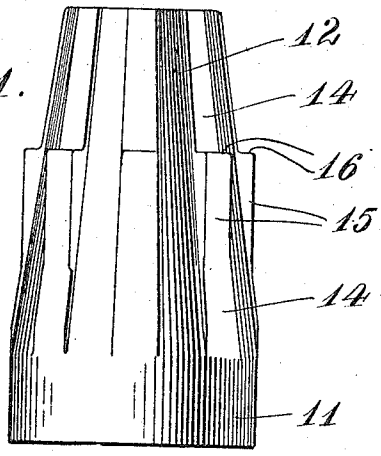


Fig. 5

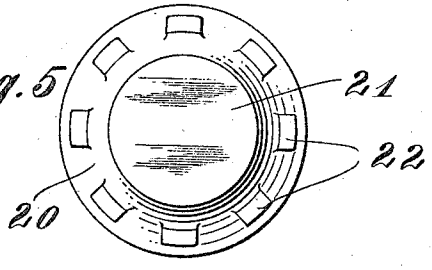


Fig. 7.

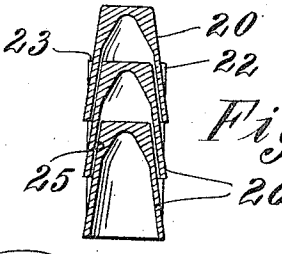


Fig. 4.

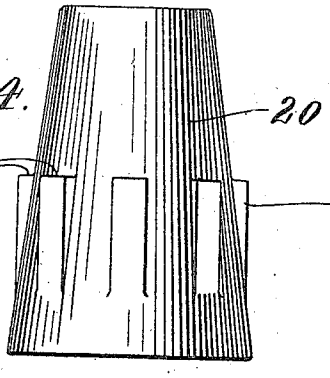
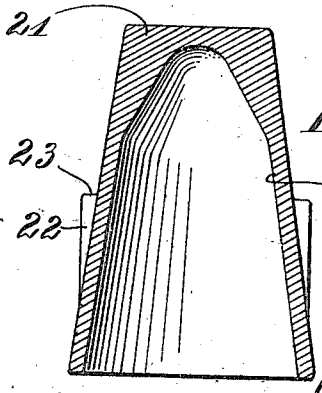


Fig. 6.



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By his Attorney

Oscar Geier

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2 SHEETS—SHEET 2.

Fig. 11.

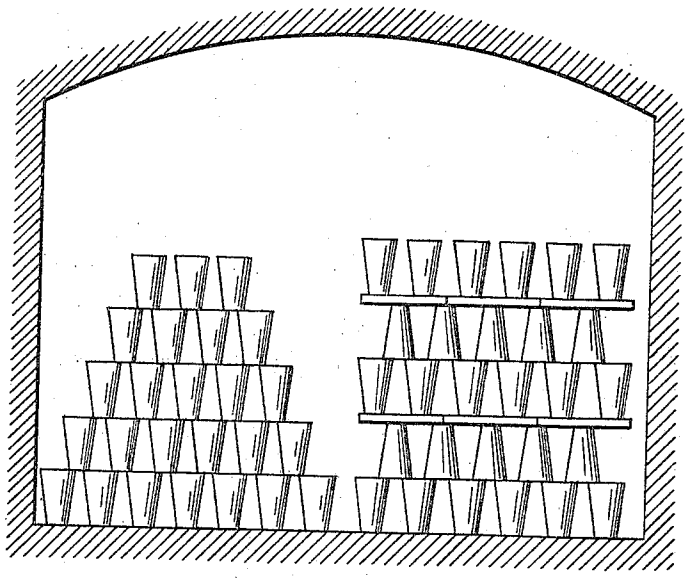
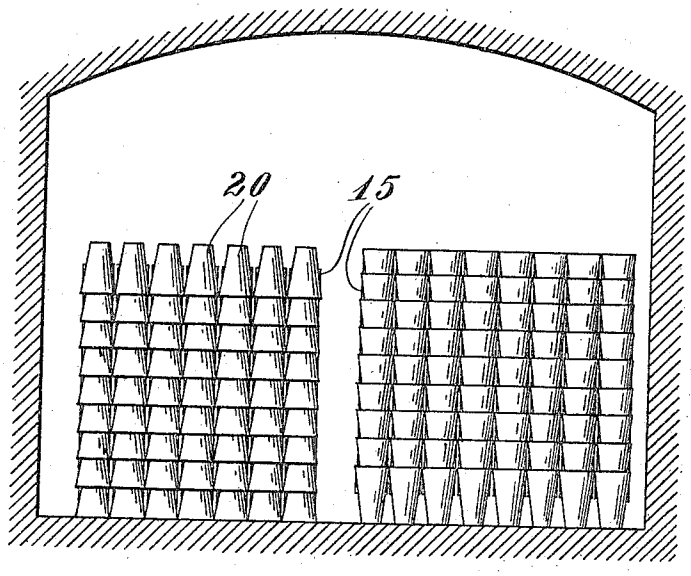


Fig. 12.



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UNITED STATES PATENT OFFICE.

EUGEN BLASS, OF COLOGNE-MÜLHEIM, GERMANY.

EARTHENWARE VESSEL.

1,238,092. Specification of Letters Patent. Patented Aug. 28, 1917.

Application filed April 25, 1916. Serial No. 93,557.

To all whom it may concern:

Be it known that I, EUGEN BLASS, a subject of the Emperor of Germany, and resident of Cologne-Mülheim, Rhein-Provinz, and State of Prussia, Germany, temporarily residing in Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Earthenware Vessels, of which the following is a specification.

This invention relates to improvements in earthenware vessels, and the process of their manufacture having as its principal object, the provision of means, formed integral with the vessels, whereby they may be nested or packed during the kiln baking and thereafter, but in such manner that a free circulation of air is attained over their entire inner and outer surfaces, allowing moisture and volatile matter to be readily dissipated and driven off.

Another object is to permit of such packing or nesting that the articles occupy far less space than is common when in the kiln, and finally, to materially strengthen the articles as well as improve their general appearance, and to provide a surface less liable to slip in handling.

These and other objects which will become more fully apparent as the disclosure progresses, are attained by the novel design and construction hereinafter described, and shown in the annexed drawings, forming a material part of this specification, and in which:—

Figure 1 is a side elevation of a vessel, made in accordance with the invention.

Fig. 2 is a bottom plan view of the same.

Fig. 3 is a partial vertical sectional view of a cup showing a modification.

Fig. 4 is a side elevation showing another modified form of construction.

Fig. 5 is a bottom plan view of the same.

Fig. 6 is a vertical sectional view taken through the center of a vessel having a modified form of construction.

Fig. 7 is a sectional view showing the manner of nesting the vessels, drawn to a reduced scale.

Fig. 8 is a fragmental top plan view of a cup showing an internal rib construction.

Fig. 9 is a fragmental elevational view showing a modified form of rim construction.

Fig. 10 is a fragmental sectional view of the same.

Fig. 11 is an elevational view showing a form of kiln, with earthen-ware vessels placed therein ready for drying and burning, the vessels being stacked as usual in older and well known processes, and

Fig. 12 is another elevational view of the same kiln, showing the method of nesting the improved vessels.

In Figs. 1 to 3, the part 10 of the vessel is shown to be conical in shape, provided with a cylindrical upper portion 11, from which extend a plurality of depressions or grooves 12, whereby the wall of the vessel is materially lightened and having alternately disposed upon its normally raised surfaces 14, outstanding lugs 15, the upper ends of which are formed with the thickened portion of the walls and extend vertically downward, so that opposite lugs are parallel to the point of their offsets or terminals 16, which are preferably arranged mid-way in the length of the conical part 10; the bottom 17, like the other members, is integrally formed in the usual shape.

Figs. 4 to 6 inclusive, represent a design of vessel or crucible in which the grooves or recesses are omitted, the walls 20 being of uniform thickness, and formed with the bottom 21 in any preferred manner.

With the exterior walls of the vessel are formed lugs 22, spaced as may be preferred, and of any desired width, the lower abruptly terminating end 23, of which is preferably positioned midway in the length of the vessel.

In Fig. 7, the last mentioned vessels are shown in a nested position, indicating that a space 25 is formed between the interior of one vessel, and the exterior of the next succeeding vessel, the top or upper portion of which rests upon the abutment 23, and so on for such number of vessels as may be packed together.

From the foregoing it may be observed that a uniform annular space is provided between each adjacent vessel from which the air may enter between the lugs 22 and pass into the next succeeding vessel and so on indefinitely.

The position of such lugs permits of a much closer packing in a kiln as is clearly apparent in Fig. 12 than in the present methods, two of which are indicated in Fig. 11. While it is preferred to form the ribs upon the exterior of the vessel it will be evident that the same may be molded upon

the interior as shown in Fig. 8, in which case the outside of the vessel will obviously be plain and smooth.

Figs. 9 and 10 indicate an arrangement similar to that shown in Figs. 1 and 2 except that the lugs 30 extend only a slight distance, being confined substantially to the rim portion 31, the spaces 32 corresponding to the spaces 12 before indicated in the preceding figures.

Another advantage which the lugs possess is to provide strength where it is most desirable, and it will be noted that the out-standing lugs also provide an efficient and convenient method of grasping the vessel, so that it may not turn in the hand of the operator, and is therefore less liable to be broken in handling or transportation.

The alternate grooves and raised surfaces may be applied to any conical form of vessel, irrespective of the material of which it may be constructed, as clay, graphite, carbon, magnesite and compositions used in the manufacture of crucibles, china, porcelain, glass and other like articles molded or formed by other means of the potters' art known as crockery, earthenware, or refractory material vessels.

Thus large retorts, crucibles, etc., may be made with less material and weight than usual, and at the same time have a strength relatively greater in proportion than where the walls are of uniform thickness.

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

1. In a conical vessel of the class described, a plurality of raised longitudinal ribs formed with their surfaces parallel to the axis of said vessel upon its exterior, said ribs being spaced around the periphery of the vessel and having transverse terminal steps, the steps being directed toward the smaller end of the vessel.

2. In a vessel of the class described, a plurality of spaced, raised longitudinal ribs integrally formed around the vessel's periphery, said ribs being substantially wedge shaped with the larger or base portion thereof directed toward the bottom of, and terminating midway in the height of the vessel, the walls of said vessel being reduced in thickness throughout the length of the conical portion of said vessel between said ribs and directly therebelow, and of uniform thickness at its upper cylindrical portion.

Signed at New York in the county of New York and State of New York this 24 day of March, 1915.

EUGEN BLASS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."