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R. RATNER

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FRANGIBLE TABLEWARE

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Fig. 1.

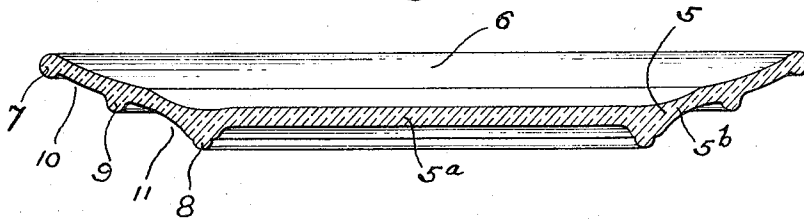
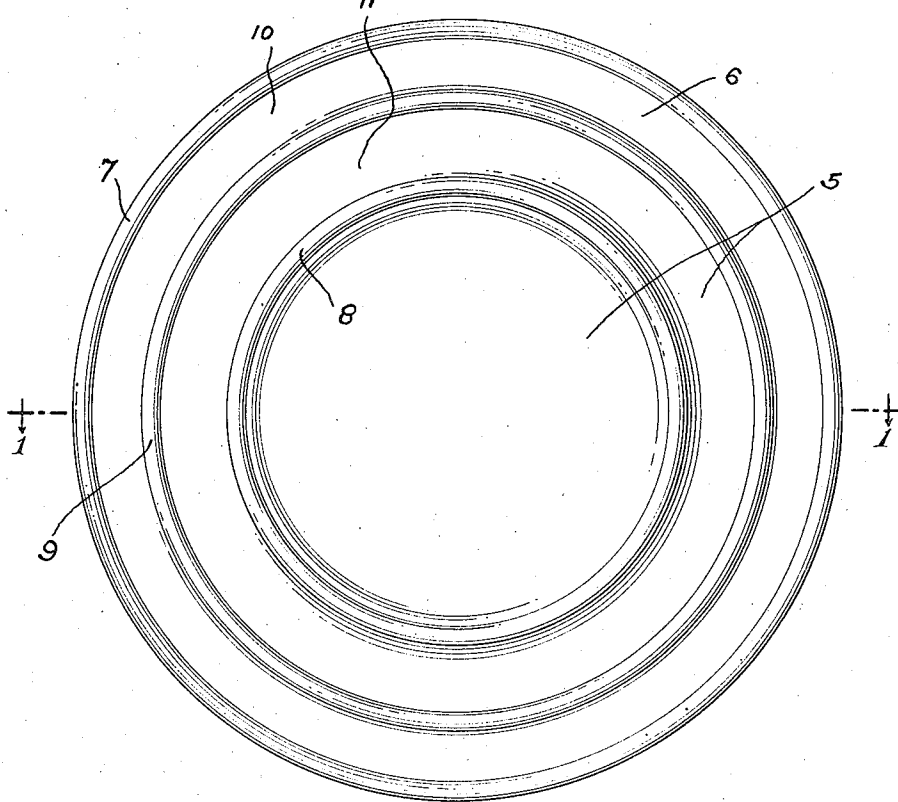


Fig. 2.



INVENTOR
Richard Ratner
BY *Augustus M. Henry*
his ATTORNEY

UNITED STATES PATENT OFFICE

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FRANGIBLE TABLEWARE

Richard Ratner, New York, N. Y.

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4 Claims. (Cl. 65—15)

This invention relates to articles of chinaware and the like, and, more particularly, to such articles which, while shaped to include a main central section and a rim-like complementary section or flange extended continuously all around said central section, are more or less flat and more or less shallow in depth as compared say to a bowl or cup. The articles of chinaware or the like to which the present invention relates are, for example, platters, plates, soup-plates, saucers and similarly substantially flat and fairly shallow articles; all of which will herein be inclusively referred to as platter-like articles, or as platter-like articles of tableware.

These platter-like articles are commonly made of some relatively easily frangible material, such as china, porcelain, pottery or glass, or a synthetic substitute in the form of a composition fused by a firing and heating process; and as used in such public eating places as cafeterias and the like are comparatively thick-walled. Nevertheless, in the field of use just-mentioned, and in which field the invention is of special utility although it is not necessarily to be limited to use in that field, one problem has always been the high cost of frequent replacement of the platter-like articles, due to their chipping, breaking or cracking, and this because of the frangible material of which they are made. Another problem has been that of convenient and safe handling of the article when grasped merely by one hand at the rim-like section or flange of the article.

The present invention solves both these problems, and in a very simple way, by addition of a feature which adds practically nothing to the cost of manufacture of the article, and which is of a nature to attain another object of the invention, this last to avoid a structure establishing pockets, crevices or other recesses of a kind permitting the accumulation of dirt and food particles.

According to the invention, the article is provided on its underside with an endless bead or rib running all around the article, but at a novel location. In virtue of its behavior in protecting the article against chipping, cracking and breaking as the result of vibratory stresses from impact-shocks received by the article, I call this rib the vibration-throttling rib. Platter-like articles have heretofore been provided with one or more endless beads or ribs, and on the underside of the article. One of these is what may be called a pedestal rib; the same being commonly located within the confines of the generally flat central

portion of the article so that the article will rest on the crest of this rib when lying on a table or like support. This pedestal rib is practically always present, as its presence is important in aiding manufacture of the article, by allowing the articles to be stacked without extended face to face contact while in the kiln. With the idea of strengthening the flange of the article, it has been proposed that there be provided, in addition to the pedestal rib, an endless rib running all around the flange at its outer edge. Such a perimetral rib, as it will be called herein, has had an effect relative to the flange, I have found, such that, when the platter-like article is used in cafeterias and the like, the life of the article is actually shortened, rather than prolonged. The articles are roughly handled, and the extra ring-like mass established by the perimetral rib at the outer edge of the flange acts apparently in some way as an intensifier or multiplier of the vibratory stresses set up in the article when the latter is subjected to impact-shocks.

Whether or not the perimetral rib is present, the vibration-throttling rib of the present invention has been found by actual test to act in precisely the way it should act to justify its designation as a vibration-throttling element. These tests have indicated that the location of this rib should be such a distance from the pedestal rib that the spacing between these two ribs is at least three or four times the maximum width of the pedestal rib.

As the invention is preferably carried out, the vibration-throttling rib is placed on the underside of the flange of the article; and in this way of carrying out the invention, where the perimetral rib is also present, the vibration-throttling rib is preferably placed about half-way between the pedestal rib and the perimetral rib.

A now preferred embodiment of the invention, and one pursuant to the preference last expressed, is shown in the accompanying drawing, and below described in detail; but merely to illustrate, and not in any way to delimit, the invention.

In said drawing,

Fig. 1 is a vertical axial section taken through said embodiment, the latter shown as in the form of a so-called dinner plate,—this view being a section taken on the line 1—1 of Fig. 2; and

Fig. 2 is a bottom plan view of said plate.

Referring in detail to the dinner plate illustrated in the drawing, the same as shown includes a main central section 5, and a complementary rim-like section or flange 6. In the present case, the section 5 is shown as circular

(although as will be understood it need not necessarily be circular); and so the flange 6 is shown as in the form of an annulus.

The section 5 is shown as of a shape which is conventional for a dinner plate, that is, as including a generally flat central subdivision 5a, and an annular, upwardly laterally arched subdivision 5b; so that the shallow depth of the article is provided in part by said subdivision 5b of the section 5, and in part by the flange 6 due to the upward lateral inclination of the latter.

A platter-like article of this kind may also be said to be made up of a central generally horizontal portion 5a, and an upwardly and outwardly directed annular portion 5b—6.

Also as the invention is shown, the dinner plate illustrated has its flange 6 shaped to include a perimetral rib 7; said plate being further shown as having its bottom shaped to incorporate the usual pedestal rib 8, in accordance with long established practice in making practically any platter-like article of china, porcelain, pottery or the like.

As the article illustrated in the drawing is a dinner plate, with its section 5 circular and its section 6 annular, the ribs 7 and 8, in the present case, are shown as circular.

A vibration-throttling rib according to the invention is, in the embodiment illustrated, indicated at 9.

This rib 9, like the ribs 7 and 8, is formed from the single mass of frangible material which is shaped to provide the plate sections 5 and 6. As is well known in the art of thus shaping these materials, the three ribs 7, 8 and 9, or the ribs 7 and 8 and several of the ribs 9, can be shaped as cheaply and as quickly as the two ribs 7 and 8 or either of them.

As shown, the vibration-throttling rib 9 is an endless one, running all around the section 6 on the underside thereof, and located between the ribs 7 and 8 so as to be spaced from both while in a plane parallel with the plane of the top of the plate.

In the plate illustrated in the drawing, the vibration-throttling rib 9 is shown as about equidistant between the perimetral rib, and that part of the bottom of the plate on which the latter rests while lying on a table, said part of the plate bottom in the present case being the crest of the pedestal rib 8. In a plate having a flange 6 which is of the thickness, and of the lateral dimension and inclination relative to the other plate parts, as illustrated in the drawing, such a location for the rib 9 would probably give it maximum efficiency so far as prolonging the life of the plate is concerned. Investigations have indicated, however, that with other thicknesses of the flange, and with other lateral dimensions and inclinations thereof relative to the other plate parts, other locations of the rib 9 (or of a plurality thereof, provided they are suitably spaced one from another), as a location somewhat closer to the rib 7 than to the rib 8, or a location somewhat closer to the rib 8 than to the rib 7, would give best results; although apparently in any case there should be a considerable spacing of the rib 9 (or of a plurality thereof) from the perimetral rib 7 or, if the latter be omitted, from the rim of flange 6, and also a considerable spacing of the rib 9 (or of a plurality thereof) from the pedestal rib 8.

With the vibration-throttling rib 9 substantially equidistant between the pedestal rib 8 and the perimetral rib 7, there is provided on the

underside of the flange 6, at any location circumferentially thereof, a plurality of arcuately elongated recesses 10 and 11, one above and the other below the vibration-throttling rib 9 and each wide enough to afford a finger stall or seat for naturally accommodating a finger of an adult's hand. When the perimetral rib 7 is omitted, and the rib 9 is spaced as already specified above the pedestal rib, substantially the same advantages accrue; although in this case, of course, only the lower finger stall or seat 11 would have a rib (the rib 9) at its top as well as a rib (the rib 8) at its bottom.

The advantages of these finger stalls or seats are particularly important in regard to platter-like articles of frangible material as used for the serving of food to patrons of cafeterias and other like restaurants; but they are also helpful in other uses of these articles, as, for instance, in the home. In the latter use, true, the articles are usually handled more gently, both in serving food and in washing, than in a restaurant; but, on the other hand, the articles are less thick-walled than when made for cafeteria and similar public use.

Due to the provision of the auxiliary rib 9 as hereinabove described, moreover, convenient and safe handling of the article is made possible when it is grasped in one hand only. Even with a heavy article, and one laden with a heavy burden of food, the natural way to grasp the same in one hand is the same as ordinarily attempted with the usual article, that is, to place the thumb over the upper surface of the flange 6 and the fingers against the underside of the flange. These fingers tend to curl somewhat along the underside of the flange 6, in such manner that one finger naturally falls into the stall or seat 10 above the vibration-throttling rib 9, and an adjoining finger naturally falls into the stall or seat 11 below said rib 9. Thus the article will always be given a one-hand grasp, at any point around the article where the hand happens to apply that grasp, of a kind to insure that the article will be easily and surely gripped and picked up, carried from one place to another, and deposited at the new location; and this without strain on the hand or arm muscles, and with adequate check on any tendency of the article to dip at its side opposite the point of one-hand grip thereon, to cause spilling of its contents, or, above all, to have the article make first contact with its new location by shock-impact against the flange 6. Shocks of the kind last mentioned have been demonstrated to be those most likely to chip, crack or break the article.

It will be noted that the vibration-throttling rib 9 can be, as it is shown, of the same general character as the perimetral rib 7, that is, in the form of a mere bead-like swelling of the thickness of the flange 6. Just as the rib 7 is reversely curved from its point of maximum height to its lowermost line of smooth merging with the underside of the flange 6, thereby to eliminate crevices which would encourage the accumulation of dirt or food particles, the rib 9 is shown as similarly shaped adjacent to both of its lines of joinder with the underside of the flange 6. In the case of the rib 9, as will be seen, the reverse curvature just referred to is both above and below the point of maximum height of the rib, thereby to avoid adding any dirt or food accumulating crevices despite the addition of the rib 9.

It is also pointed out that the rib 9 can be present, yet so shaped and placed, as it is in the

article illustrated in the drawing, that stacking of a plurality of the articles is had with the same ease and surface clearances as in the case of the usual tableware article of the same type.

5 As already explained, the precise location of the vibration-throttling rib (one, or perhaps a plurality thereof), may, for maximum efficiency in prolonging the life of the article, differ, in articles of different sizes and with different degrees
10 of inclination of the flange. It is believed, however, that the equivalent of the rib 9 should, like the rib 9, be in a plane substantially parallel to that containing the pedestal rib 8, or, if said equivalent is placed not on the underside of the flange but on the underside of the generally flat
15 central portion 5a of the article which is surrounded by the pedestal rib, in substantially the same plane as that containing the pedestal rib. A placement of a vibration-throttling rib as last described is within the invention; and actual
20 tests have shown that, particularly in the case of a platter-like article constituting the saucer member of an ordinary cup and saucer couple, such a placement of the vibration-throttling rib acts also with high efficiency in prolonging the
25 life of the article against cracking or other damage from vibratory stresses set up by impact-shocks, provided the vibration-throttling rib is, as has hereinabove been prescribed for the rib 9, spaced from the pedestal rib by a distance at least equal to three or four times the maximum width of that rib. It must be added, however, that the spacing of the vibration-throttling rib from the pedestal rib should not so much exceed the distance last-mentioned as to have the former rib
35 nearer the center of the article than to the pedestal rib; at least so far as tests to date indicate. In said saucer, excellent results have been obtained when the vibration-throttling rib has a spacing of about $\frac{3}{4}$ " inward of the pedestal rib.

The scope of protection contemplated is to be taken solely from the claims following, interpreted as broadly as is consistent with the prior art.

45 In said claims, there is meant, in referring to a platter-like article of tableware, platters, plates, dishes, saucers and the like, which are more or less flat and shallow in depth, that is, with a depth which is fairly small compared to the width of the article, as contradistinguished

from a bowl or cup, which characteristically has a depth generally approaching if not equalling, and sometimes exceeding, its rim diameter.

I claim:

1. In a platter-like article of tableware made 5 of a single mass of shaped frangible material and of the type comprising a main central section and a rim-like complementary section extended outwardly and upwardly from and continuously all around said central section, and also of the 10 type carrying a pedestal rib on its bottom, a vibration-throttling means forming part of said single mass and including an endless rib running all around the underside of said complementary section, said second rib all around the same being spaced downward from the outer margin of 15 said complementary section and upward from said pedestal rib, at least substantially the entirety of said second rib being at the underside of the article and such rib being of a uniform cross- 20 section all around the article to provide an annularly evenly distributed mass of added material, said rib being of a height and of an average width each of which is at least from one-third to 40% of the thickness of the article at the locus 25 of said rib.

2. An article as in claim 1, in which the spacing between said ribs is at least two or three times the width of the pedestal rib.

3. An article as in claim 1, in which the spacing between the two ribs is about as wide as the thickness of the forefinger of an adult's hand.

4. In a platter-like article of tableware made 35 of a single mass of shaped frangible material and of the type comprising a main central section and a rim-like complementary section extended outwardly and upwardly from and continuously all around said central section, and also of the type carrying a pedestal rib on its bottom and a perimetral rib at the outer edge of the rim-like section, a vibration throttling means forming part of said single mass and including an endless rib 40 running all around the underside of said rim-like section, the rib last-mentioned being spaced all around the article downwardly from the perimetral rib and upwardly from the pedestal rib, about equidistant between said pedestal rib and said perimetral rib. 45

RICHARD RATNER. 50