

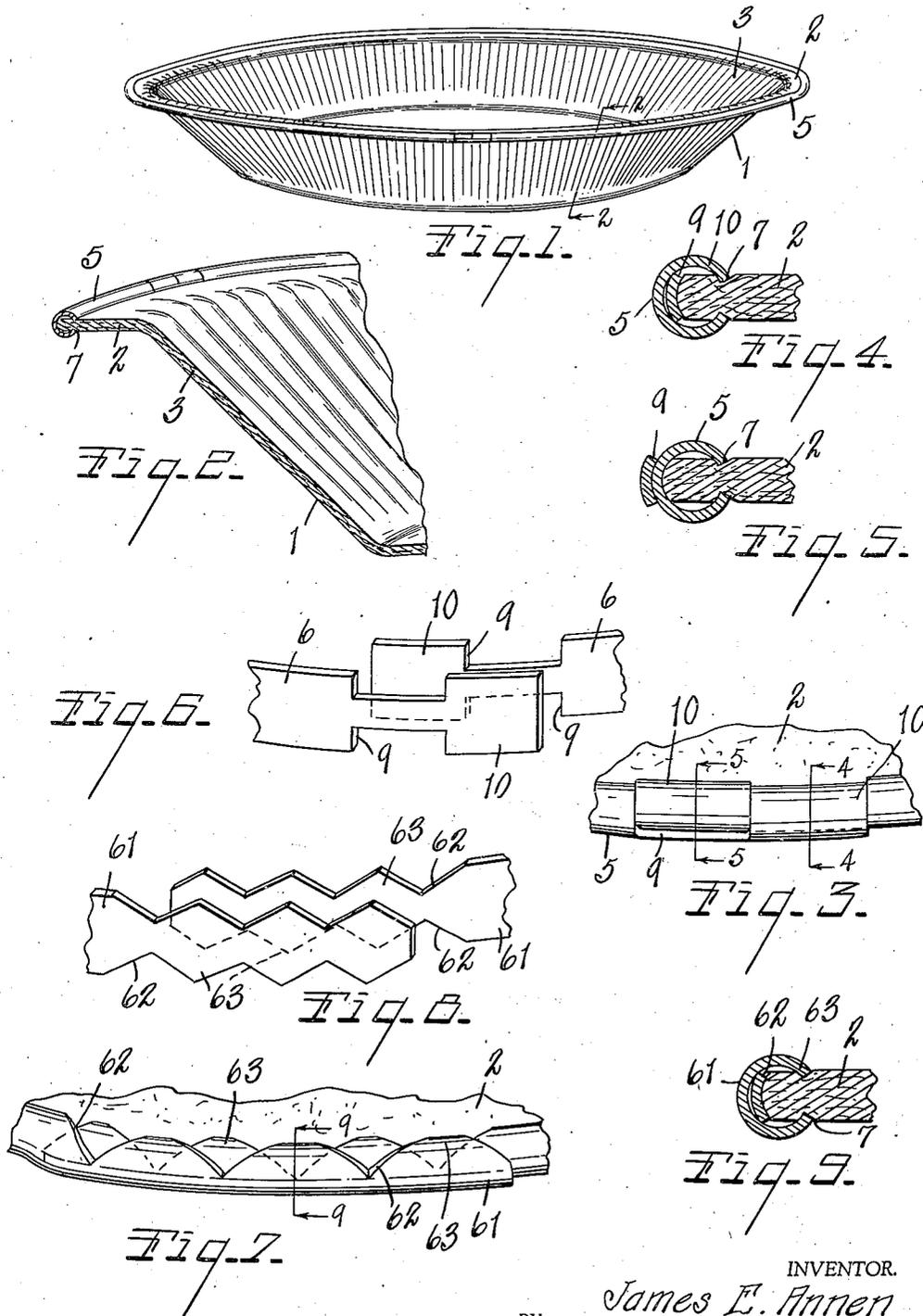
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J. E. ANNEN

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REINFORCED PAPER DISH

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INVENTOR.
James E. Annen
BY Earl T. Chappell
ATTORNEYS

UNITED STATES PATENT OFFICE

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REINFORCED PAPER DISH

James E. Annen, Kalamazoo, Mich., assignor, by mesne assignments, of one-half to Kimberly Stuart, and one-half to Elizabeth R. B. Stuart, both of Menasha, Wis.

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This invention relates to improvements in reinforced paper dishes.

The main objects of this invention are:

First, to provide an improved pressed paper dish which is well adapted as a baking dish as well as an attractive merchandising dish or dish for delivery of the baked product.

Second, to provide a pressed paper dish or receptacle, the body portion of which may be of relatively thin or light stock and at the same time the rim of the dish is so reinforced that it can be handled with a heavy product therein, for example, a pie, without likelihood of distortion or injury to the contents.

Third, to provide a dish or receptacle having a reinforced rim which may be crimped on by means of machinery without danger of cutting through the dish or so weakening the dish that the rim is likely to tear or break off particularly at the joint.

Fourth, to provide a novel method of applying a reinforced bead to the rim of a paper dish or receptacle which results in a product that is attractive in appearance and at the same time greatly strengthened.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view illustrating a paper or fibrous dish or receptacle embodying my invention.

Fig. 2 is an enlarged fragmentary view in section on line 2—2 of Fig. 1, illustrating in greater detail the general nature of the construction.

Fig. 3 is an enlarged fragmentary top plan view illustrating the manner in which the ends of the reinforcing strip or bead are united to complete the rim in accordance with my invention.

Figs. 4 and 5 are fragmentary views in section on lines 4—4, 5—5, respectively of Fig. 3.

Fig. 6 is a perspective view illustrating the construction of the ends of the reinforcing strip and the relation thereto to one another prior to crimping the same to complete or unite the reinforcing bead or rim.

Fig. 7 is a fragmentary top plan view generally similar to Fig. 3, illustrating a modified embodiment of my invention.

Fig. 8 is a fragmentary view corresponding to Fig. 6, illustrating the formation and relative po-

sitioning of the ends of the reinforcing strip in accordance with the modification of Fig. 7.

Fig. 9 is a fragmentary view in section on line 9—9 of Fig. 7.

My present invention relates to improvements in tapered paper dishes which may be used for baking or cooking and likewise for merchandising the products baked or cooked therein, and one which can be repeatedly handled with little danger of distortion or injury to the contents or of rupturing or breaking the dish. I am aware that paper dishes have been reinforced with metal rims but such reinforcing rims or beads have resulted in a large percentage of wastage owing to the reinforcing beads cutting the paper stock or body of the dish, particularly at the joint, and one of the objects of my invention is to avoid this result and at the same time provide a structure in which the bead is effectively secured with a minimum of waste and damaged product.

In the embodiment of my invention illustrated, 1 designates generally the dish or receptacle of my invention which is preferably of pressed paper as distinguished from being molded from paper stock. The dish illustrated is a pie dish or plate although it will be understood that my improvements are capable of adaptation to a wide variety of dishes—that is, designed for a wide variety of purposes and uses. However, my improvements are particularly desirable for baking dishes where handling by the rim is the usual practice and where the dishes commonly carry considerable load.

The dish is provided with a flange-like rim 2 extending from the outwardly inclined side wall 3. This side wall is preferably crimped or fluted during the die pressing operation whereby the same is stiffened and also the paper stock is subject to a fairly uniform displacement and one that does not objectionably injure or weaken the dish.

As stated, one of the main objects of my invention is to provide a dish which is adapted to be used as a baking dish, for pie for example, and also for display and delivery of the product in the original receptacle or dish. This results in frequent handling of the dish and commodities such as pie are quite heavy so that without reinforcement the dish is likely to flex or bend and become distorted thus injuring the pie or even resulting in spilling of the contents.

To reinforce the dish at the point where it is ordinarily grasped, I provide an annular metallic reinforcing bead 5 for the rim of the dish,

the ends of this reinforcing bead being effectively interlocked so that it cannot open up under the stresses to which it is subjected when grasped and also so that the stresses are effectively distributed throughout the rim of the dish. This bead is preferably originally in the form of a flat strip 8 being crimped and rolled by a suitable forming die or roller into an inwardly facing channel and crimped and clamped with its edges in partially embedded relation to the stock of the rim as shown at 7.

The ends of the bead are disposed in overlapping relation in order to avoid any open joint and it has been found difficult to crimp the doubled overlapping material onto the rim without cutting into the rim to such an extent that it is weakened and breaks or tears through. To avoid this and to secure an interlocking at the joint, I provide the joint portions with opposed recesses 9 forming T-shaped portions, the laterally projecting tongues 10 of which are adapted to register with the recesses 9 of the lapped portion.

In applying this bead, it will be understood that the bead strip is of sufficient length to pass around the rim of the dish with the joint portion described in overlapping relation. When the bead is rolled and crimped upon the rim, with the joint portions in overlapping relation, the tongues 10 of the outer joint member are folded into the corresponding recesses of the inner joint member providing an effective interlock as is shown in Figs. 3, 4 and 5.

It will be noted that with this arrangement the only double thickness at the joint is radially disposed—see Figs. 4 and 5, so that the crimping rollers or means can exert a substantially uniform pressure throughout the bead and the edges of the bead will be embedded to substantially the same degree at the joint as the other portions of the bead and this avoids objectionably weakening or cutting through of the stock of the rim at the joint.

In Figs. 7, 8 and 9, I illustrate a further embodiment of my invention, wherein the rim member or strip 61 has similar notched or sawtoothed terminals 62 with the V-shaped teeth or projections 63 disposed radially opposite to V-shaped notches or recess 63 in assembling the rim member on the peripheral lip of a dish. Following the final crimping step, the receptacle is in the condition illustrated in Figs. 7 and 9 with all of the V-shaped teeth or projections 63 embedded into peripheral lip 2 a substantially equal extent.

I have illustrated and described my improvements in embodiments which are very practical. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed this disclosure will enable those skilled in the art to embody or adapt my improvements as may be desired.

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

1. An article having a peripheral rim and a reinforcing bead surrounding said rim with its side edges embedded in the rim on opposite sides of the latter, said bead comprising a metallic strip having similar ends including rectangular terminal portions of full width and rectangular notched portions of reduced width adjacent said terminal portions, said strip being arranged for crimping with its ends overlapping and with said terminal portions in angular register with the notched portions, whereby to prevent the occur-

rence of a double thickness of the metal strip at points on either of said opposite sides of the rim at which the strip is embedded, the sides of said strip being crimped to effect endwise locking engagement of said terminal and notched portions to thereby reinforce the rim and to uniformly embed the strip in said rim throughout the periphery thereof.

2. An article dish having a peripheral rim and a reinforcing bead surrounding said rim with its side edges embedded in the rim on opposite sides of the latter, said bead comprising a metallic strip having rectangular terminal portions of full width and rectangular notched portions of reduced width adjacent said terminal portions, said strip being arranged for crimping with its ends overlapping and with said terminal portions in angular register with the notched portions, whereby to prevent the occurrence of a double thickness of the metal strip at points on either of said opposite sides of the rim at which the strip is embedded, the sides of said strip being crimped to uniformly embed the strip in said rim throughout the periphery thereof.

3. A pressed paper article having a peripheral rim and a reinforcing bead surrounding said rim and crimped thereon from opposite sides of the rim, said bead comprising a metallic strip overlapped at its ends and having terminal interlocking portions and V-notched portions adjacent said terminal portions arranged in angular register therewith, the notched and locking portions engaging to lock the bead while preventing the occurrence of a double thickness of the metal strip at points of overlap at which the strip is embedded in said rim.

4. A fibrous article having a peripheral rim and a reinforcing bead surrounding said rim and crimped thereon, said bead comprising a metallic strip overlapped at its ends and having interlocking portions and notched portions adjacent said portions arranged in angular register therewith, the notched and locking portions engaging to lock the bead while preventing the occurrence of a double thickness of the metal strip at points of overlap at which the strip is embedded in said rim.

5. An article comprising a body of paper stock having side walls terminating in a rim, and a metal rim reinforcing bead of circular section receiving the edge of the rim and clamped thereon with the edges of the bead partially embedded in the rim and with the ends of the bead in overlapping relation, such overlapping ends having opposed edge notches providing T-shaped joint members, the enlargement of the outer joint member being in folded engagement with the recesses of the inner joint member thereby providing a joint having an axial thickness substantially equal to that of the remainder of the bead.

6. An article comprising a body portion of paper stock having side walls terminating in a rim, and a metal reinforcing bead of inwardly facing channel section receiving the edge of the rim and clamped thereon with the edges of the bead partially embedded in the said rim and with the ends of the bead in overlapping joint relation, the overlapping joint portions of the bead having edge notches providing edge tongues, the tongues of the outer overlapping portion of the joint being in folded engagement with the edge notches of the inner portion of the joint providing a secure engagement and minimizing the thickness at the joint.

JAMES E. ANNEN.