C. INGERSOLL.
Corrugated Paper Dish.

No. 221,564. Patented Nov. 11, 1879.

Fig. 1.

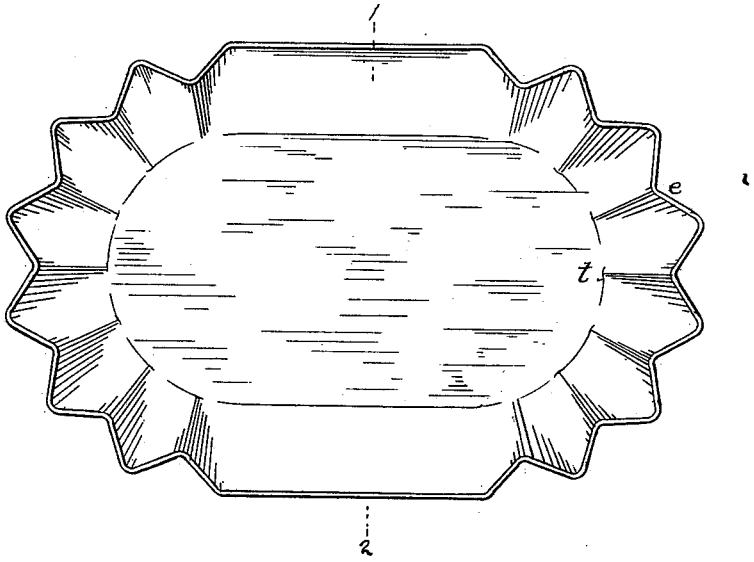
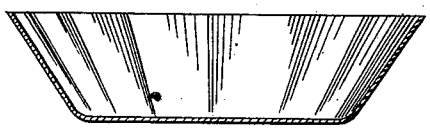


Fig. 2.



Attest.
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By his attorney
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UNITED STATES PATENT OFFICE

CHALMERS INGERSOLL, OF BELOIT, WISCONSIN, ASSIGNOR TO THE PAPER NOVELTY COMPANY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CORRUGATED PAPER DISHES.

Specification forming part of Letters Patent No. **221,564**, dated November 11, 1879; application filed March 14, 1878.

To all whom it may concern:

Be it known that I, CHALMERS INGERSOLL, of Beloit, in the county of Rock and State of Wisconsin, have invented a new and useful Improvement in Corrugated Paper Dishes, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of one of my improved dishes, and Fig. 2 a cross-section on the line 1 2, Fig. 1.

The object of my invention is a cheap and strong jointless grocer's dish made of one sheet of paper, without distending or wrinkling the latter, and with sides of any required depth at any suitable angle.

In the manufacture of grocers' dishes of paper it has been customary to compress the sheets of paper between plain dies, which bend up the edges forming the sides of the dishes.

Owing to the nature of the material, which is not ductile, like metal, nor plastic, like pulp, the turning up of the sides either cuts or breaks or distends the material, and thereby tears the same or wrinkles it in overlapping folds, which, owing to their increased thickness, prevent the dies from pressing evenly on the whole surface of the dish, so that the surface thereof is rough and irregular, while the pressure of the articles held by the dishes will unlap or distend the folds and turn down the sides, bringing the sheets to their original flat form. This is especially the case when the articles are in liquid form or the dish becomes dampened.

In the manufacture of expensive and finely-finished articles, as wash-basins, platters, and other articles intended for permanent use, these difficulties may be overcome or avoided by the molding of pulp as it comes from the engine, or by subsequent glazing or finishing processes; but in the production of butter-dishes and similar articles intended as receptacles to be given away with the article sold such means of production and finish are too expensive for practical use. In order to correct these defects without any increased cost of production, I make a dish in which the excess of material that results from turning up the edges of a sheet to form the flaring sides is taken up by regular folds or corrugations *e* without breaking, distending, or overlapping any part.

The corrugations are deep at the top and vanish at the periphery *t* of the bottom, so that there is no distention of the material at the lower ends of the corrugations.

The amount of surplus material increases in proportion to the angle and height of the flaring side from the bottom of the dish. After being pressed the dish is dried, when it will retain permanently the form imparted by the dies.

The character and arrangement of the corrugations will depend upon the shape and depth of the dish and the inclination of the sides. It is necessary, however, that the corrugations beginning at the periphery of the bottom increase in depth toward the top.

Oblong dishes are best corrugated at the ends, which are made rounded, as shown in Figs. 1 and 2. Circular dishes may be corrugated throughout the entire sides.

I claim—

The within-described dish, made of a single sheet of paper, with the edges turned up to form sides, with corrugations decreasing in depth toward and vanishing at the periphery of the bottom, substantially as set forth.

CHALMERS INGERSOLL.

Witnesses:
H. B. ALLEN,
I. N. RAWSON.