

D. N. RUSSELL.
Paper-Vessel.

No. 162,954.

Patented May 4, 1875.

Fig. 1.

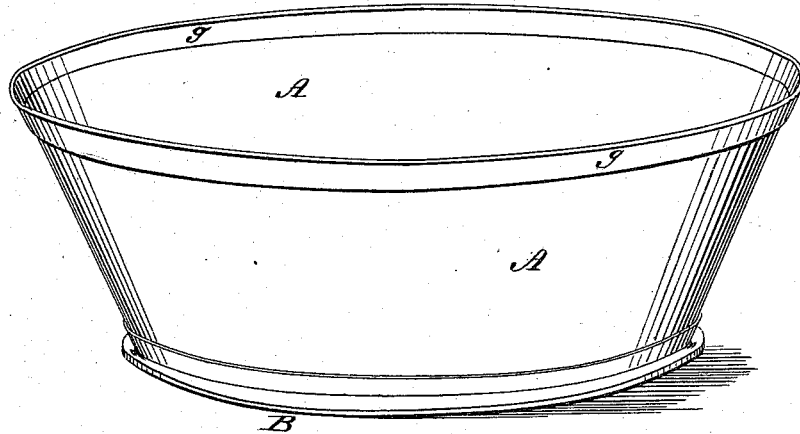


Fig. 2.

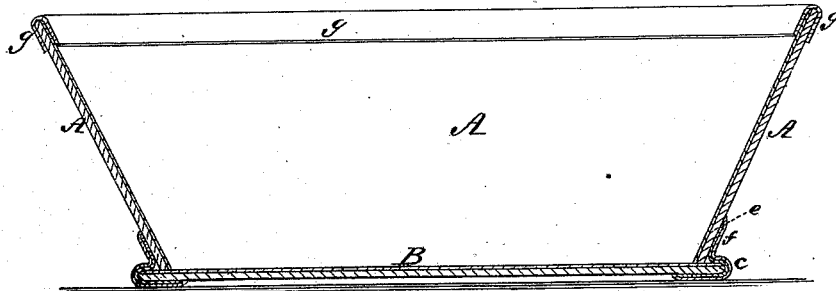
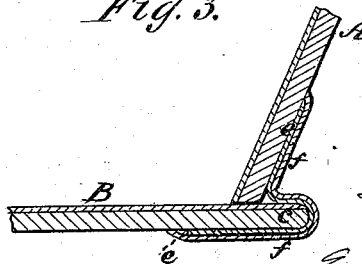


Fig. 3.



Witnesses:
E. Wolff
Jacob Selbel

Inventor:
Daniel N. Russell
My attorney.
J. M. Lister

UNITED STATES PATENT OFFICE.

DANIEL N. RUSSELL, OF NEW YORK, N. Y.

IMPROVEMENT IN PAPER VESSELS.

Specification forming part of Letters Patent No. **162,954**, dated May 4, 1875; application filed December 22, 1874.

To all whom it may concern :

Be it known that I, DANIEL N. RUSSELL, of New York city, in the county of New York, in the State of New York, have invented a new and useful Paper Vessel or Receptacle for Butter, Lard, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

In the retail sale of butter it is the custom among first-class grocers to employ earthenware dishes or crocks, into which the desired quantity of butter is put for delivery to the customers. This method of putting up butter is deemed necessary on account of cleanliness; to permit the placement of the butter package or receptacle in contact with other packages of articles for delivery in baskets without greasing such other packages; to avoid greasing the persons handling the package of butter; and to prevent contact of the butter with any article or substance from which it might absorb or receive some unpleasant flavor; but this method or practice involves so much expense to the grocer, on account of the first cost, the keeping clean, and the loss and breakage of the crocks, as to virtually destroy nearly or quite all the profit which is charged on the butter.

My invention has for its object to overcome all the objections involved in the present mode or practice, save the loss and expense consequent thereto, and at the same time provide a means equally as good as, if not better than, that now used for the delivery or transportation of the butter to the customers. To these ends and objects my invention consists in a new article of manufacture, which I designate a "grocer's butter-dish," composed of paper, properly shaped to form a receptacle to contain the butter, and having its interior surface lined or prepared with a coating or covering of such a chemical nature that, while it will resist the penetration into or through the fabric of said package of the grease of the butter, it will not impart to the latter any taste or odor, as will be hereinafter more fully explained; and my invention further consists in certain peculiarities of construction or formation of such a grease-proof

package, which will be hereinafter more fully described.

To enable those skilled in the arts to make and use my invention, I will proceed to more fully explain it, as I have successfully practiced it myself, referring, by letters of reference, to the accompanying drawings, in which—

Figure 1 is a perspective view of a butter receptacle or package made according to my invention. Fig. 2 is a section of the same, taken at the line *xx*, Fig. 1; and Fig. 3 is a partial section in the same plane, but exaggerated in size, to illustrate certain hereinafter-explained peculiarities of construction.

In the several figures the same part is designated by the same letter.

A is the body or sides, and B the bottom, of a dish-shaped receptacle, which, by preference, is made of thick paper or thin cardboard, prepared, and having its parts united together, as I will presently explain. I have, in the practice of my invention so far, found a thin board of sun-dried straw paper to answer admirably the desired purpose, because such stock is exceedingly tough and strong in proportion to its thickness and weight, and will not break or crack under severe and frequent bending or creasing. The receptacle may be made of various sizes, adapted to contain different quantities of butter, and of any desirable contour or design. The body portion A is composed of one piece, as illustrated, bent into proper shape, and having its ends securely cemented or otherwise united together. The bottom B is made of another disk-like piece, as illustrated, and should be somewhat larger than the perimeter of the lower part of the body A, so that the said bottom cannot be accidentally pushed up into the body, and the dish be thus broken. The bottom B is united with or secured to the body portion A in the following manner, viz: The bottom B being properly placed against the lower edge of the body A, in the position shown, a narrow strip of thin paper is pasted or gummed on, so as to overlap the edge and parts of the upper and lower surfaces of bottom B, and cover a part of the exterior of body A, as shown in the drawing. This is most clearly seen at Fig. 3, where the parts

are exaggerated in size to more clearly illustrate, and the strip of paper referred to is denoted by the letter *e*. After the parts shall have been thus secured together by the paper band *e*, another band or strip, *f*, of thin canvas or other suitably strong and light material, the strength of which will not be impaired by wetting, is pasted or cemented with egg-white over the paper strip, as shown.

The object and advantage of the combination of the canvas strip *f* with the paper strip or band *e*, and the parts to be united by these two strips, are these: Were the paper strip *e* alone relied on there would be great liability, if not certainty, of a rupture or severance of the parts of the dish as soon as said strip *e* should become weakened by being wetted with brine or water from the butter; but by the presence of the two strips this objection is overcome. The small quantity of water which will always exude or escape from the contained butter at the interior of the point between the bottom and body of the dish will be all absorbed by the paper band *e*, which, by such absorption of the water, though it lose its own strength as a binder together of the parts of the dish, prevents the water from passing onto the cemented joints between the body and bottom of the dish and the canvas band *f*, and weakening or destroying such cemented union of the band *f* with the parts of the dish, while, at the same time, any saturation of the canvas *f* near its middle, or between the lines of its union with the body A and bottom B, fails to destroy its perfect capacity to hold the parts of the dish together.

g is a narrow band of thin paper, which may be cemented over the upper edge of the body A, as shown, to make a finish and lend additional stiffness and strength to said edge. The interior surface of the receptacle or package is lined with thin paper coated over with some compound or preparation which will render the surface grease-proof—that is, present such a surface as will not be penetrated by the grease, so that the outer surface of the package will remain ungreased. This internal surface, while it is made thus proof against the penetration or absorption of grease from the butter, must, however, be so prepared or coated with such a preparation as to avoid all possibility of tainting the butter or imparting to it any flavor or smell.

It is not, therefore, any and every “grease-proof” surface that will answer the purpose. The surface must be composed of such a material or compound as will not only prevent the absorption of any grease by the stock of the receptacle, but will not impart any property of taste or smell to the contained butter.

The compound or coating which I have found (after a series of experiments and practical tests) to answer well the desired purposes, and have successfully employed, may be made and used in the following manner: Take gelatine and glycerine, in about the proportions of one ounce of the former to fifty drops

of the latter, and make into a solution with about half-pint of water and the white of egg, and thoroughly coat over the interior of the dish with this preparation.

The compound may be applied with a brush, and when dried the surface of the dish will be found to be grease and water proof, and will not impart to the butter the least smell or taste. I have tested these peculiarities by having the butter for several days in the package or receptacle.

The compound may be prepared in quantity, and can be reduced to the proper consistency and fluid state as required for use in the manufacture.

If desired, the coating and its application may be made and used as follows: Take gelatine and glycerine in about the proportions already named, make into solution with water, as described, and apply this solution, with a brush, thoroughly to the paper surface to be coated. After some hours, and before the thus coated surface is quite dry, it should be brushed or coated over with the white of egg. A little salt may be added to the described solution or compound; but it is not strictly necessary to make a good surface.

The object of applying the white-of-egg coating (which may be put on with a brush) before the previous coating of gelatine and glycerine is quite dry is to permit a more ready application of the egg-white, and induce to greater perfection in the surface. The egg-white, being very tenacious, if applied to the surface after the latter shall have become quite dry, will drag, and difficulty will be encountered in putting it on.

In an extensive manufacture the egg-white may be prepared beforehand, (in quantities, of course,) and dissolved in alcohol for use; and other compounds than that I have described may, no doubt, be used, or suggested for use, by those more skilled in chemistry and compounds in carrying out my invention, the gist of which, in the particular of the coating of the material composing the dish or package, rests in the idea of the use of such a compound, preparation, or material as will prevent the absorption of any grease or moisture into the body or bottom of the dish, while at the same time the possibility of the impregnation of the butter with any taste or odor from the dish is avoided.

It will be seen that my invention thus carried out provides for the use of the grocer a dish or package answering in all particulars all the purposes of a china or earthenware dish, at a cost of so much less than that, even if the packages or receptacles are never returned, he will effect a great saving over the present practice of using crocks.

Having so fully explained the general character and separate features of my invention that any one skilled can make and use it, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, the but-

ter dish or vessel composed of a body and bottom of paper, so united as to leave a water-tight joint, and having its interior surface coated or prepared, all substantially in the manner and for the purposes described.

2. In a dish or receptacle for butter, having its body and bottom composed of separate pieces of stock, the combination, with said body and bottom, of a paper band, *e*, and a strip, *f*, of canvas or other light and flexible

material, the whole arranged and operating together substantially as described.

In testimony whereof I have hereunto set my hand and seal this 19th day of December, 1874.

DANIEL N. RUSSELL. [L. S.]

In presence of—

J. N. MCINTIRE,
JACOB FELBEL.