(No Model.)

T. C. CHALK.

NON HEAT CONDUCTING PAIL.

No. 274,461. Patented Mar. 27, 1883.

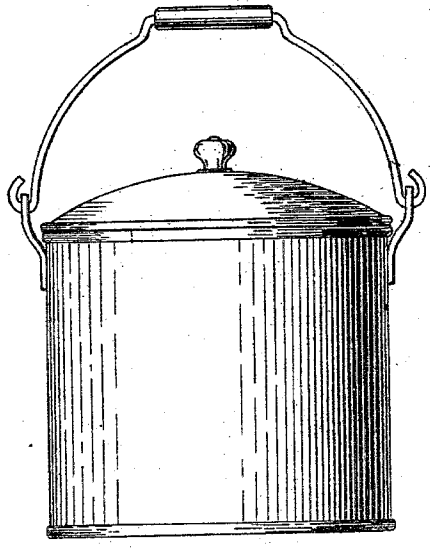


FIG. 1.

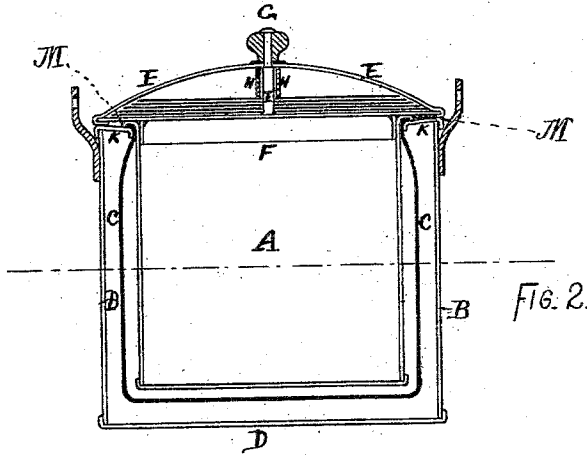


FIG. 2.

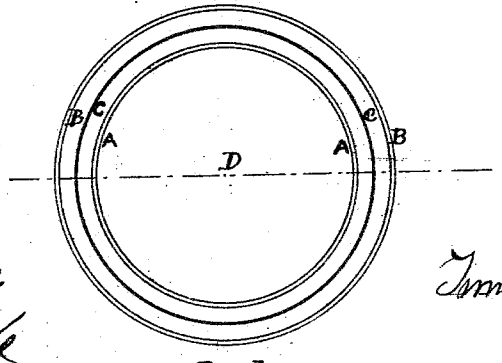


FIG. 3.

WITNESSES.

W. P. Tanner.

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UNITED STATES PATENT OFFICE.

TIMOTHY C. CHALK, OF PAWTUCKET, RHODE ISLAND.

NON-HEAT-CONDUCTING PAIL.

SPECIFICATION forming part of Letters Patent No. 274,461, dated March 27, 1883.

Application filed June 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY C. CHALK, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Pails, of which the following is a specification.

My invention relates to that class of pails or buckets which are useful for maintaining their contents with as little variation in temperature as is possibly consistent with external temperatures, and with the degree of exposure of the closed pail or bucket thereto; and my object is to economically provide for a minimum capacity for radiation or conduction of heat from within the pail or from without, and at the same time provide for having said pails as light as possible, that being obviously a matter of great importance, especially in hand-buckets and other similar vessels adapted for the conveyance of milk, ice-cream, hot coffee, &c. I attain these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation representing the exterior appearance of the pail. Fig. 2 is a vertical section of the pail, and Fig. 3 is a horizontal section passing through the body of the pail.

Similar letters refer to similar parts throughout the several views.

The smaller pail A has a rim of tin around its top edge, forming the flange M, by means of which it rests upon the flange K—a rim of tin upon the outer edge of the large pail B. A paper envelope or jacket, *c*, is then made to loosely surround the smaller pail, and gathered in at the top of the smaller pail, so as to be embraced, as shown, between the flanges M and K when the smaller pail is placed within the larger. The flange M is then soldered to the flange K and the envelope firmly held and protected from any injury.

It will be readily seen that the smaller pail touches the larger at no point, except at the intersection of two flanges, and the space between the two pails may be made large or small.

The cover E has a flange, F, fitting into the inside pail. Through the center of this cover, which is hollow and filled with some good non-conducting material—such as paper—is run a cylinder, H, and within this cylinder a spindle, I, soldered at its base to the cover. The spindle I is headed at its inner end, and a series of disks, composed of paper or some equally good non-conductor of heat, are mounted centrally on said spindle, and clamped or held between the head of said spindle and the lower end of the cylinder H by means of the knob G, which is firmly fastened to the upper end of the spindle, which projects through the cover. This construction of the cover provides for an air-space above the disks, and also a smaller air-space beneath them, if desired. This cover is light, cheap, and highly serviceable as a non-conductor of heat, whether from within or outside of the pail.

By referring to Fig. 3, in which B is the rim of the larger pail, *c* the paper envelope, and A the rim of the smaller pail, it can plainly be seen that two air-chambers, separated by the paper envelope, are formed between the two pails, and that the paper envelope, which is one of the best non-conductors known, forms a wall between the two air-chambers, which will for a long time keep the chamber within unaffected by the temperature of the chamber without. It is these two air-chambers separated by a non-conducting barrier or wall—such as paper—which form the peculiar feature of my invention.

I am aware that it is not broadly new to construct pails or buckets with double walls, or to pack the intervening space with non-heat-conducting matter of various kinds; but

What I claim as new, and desire to secure by Letters Patent, is—

1. The double pail, substantially as described, essentially embodying the inclosed air-space surrounding the inner pail, and having said space divided, substantially as described, into separate air-chambers by a wall or barrier composed of paper or other equivalent non-conductor of heat, as set forth.

2. The combination, in a refrigerator-pail, of a smaller pail, A, surrounded by a paper envelope, *c*, resting inside of the large pail B by means of the flanges M and K, soldered together, substantially as set forth.

3. The paper envelope *c*, loosely surrounding the smaller pail A and caught between the

flanges M and K, forming a non-conducting barrier between the two pails, substantially as shown.

4. The cover E, hollow inside and filled with some good non-conducting material — as paper — having a spindle, I, surrounded with paper passing vertically through its center, inside of a cylinder, H, forming a non-conducting cover, as shown.

TIMOTHY C. CHALK.

Witnesses:
WILLIAM COOKE,
W. B. TANNER.