

No. 623,334.

G. H. PERKINS.
CAN.

Patented Apr. 18, 1899.

(No Model.)

(Application filed June 22, 1897.)

2 Sheets—Sheet 1.

FIG. 1.

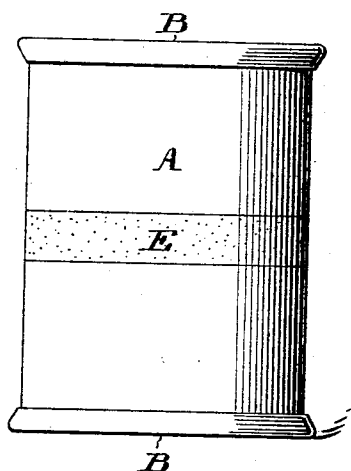


FIG. 2.

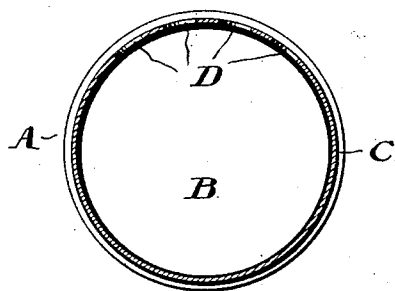
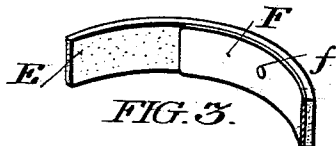
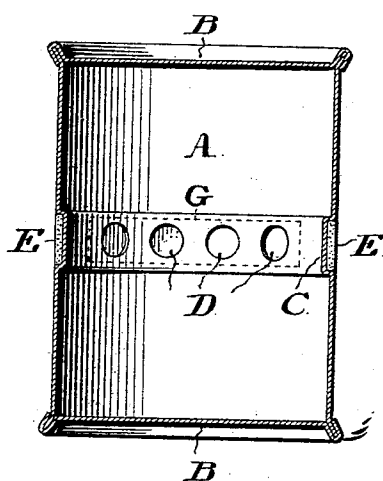


FIG. 4.

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FIG. 5.

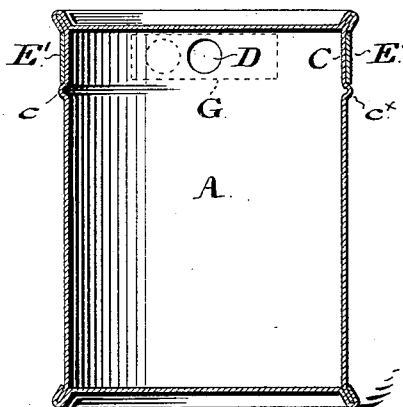


FIG. 6.

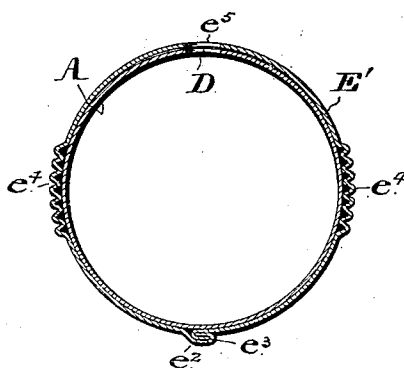
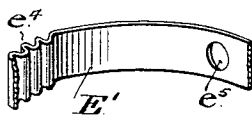


FIG. 7.



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UNITED STATES PATENT OFFICE.

GEORGE H. PERKINS, OF PHILADELPHIA, PENNSYLVANIA.

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SPECIFICATION forming part of Letters Patent No. 623,334, dated April 18, 1899.

Application filed June 22, 1897. Serial No. 641,753. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. PERKINS, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Cans, of which the following is a specification.

My invention relates to a class of cans designed to contain caustic alkali and similar materials in powdered form, and to be sealed and in such condition delivered to the consumer, and which are provided with means by which they may be readily opened without the aid of special tools.

It is desirable that cans of the foregoing character, which are used but once and made in large quantities, should be inexpensive in construction; be made so secure as not to be liable to be broken open, or have their contents disturbed, in transportation and handling; be adapted to be readily opened by unskilled persons without the aid of tools; and, when opened, and a part of the contents removed, be capable of being closed again to protect the remainder of the contents.

It is the object of my invention to provide a can of the character referred to which shall embody and possess the desirable characteristics indicated.

In the drawings I show and herein I describe good forms of convenient embodiments of my invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the accompanying drawings,

Figure 1 is a view in side elevation of a can embodying a good form of my invention.

Figure 2 is a central, vertical, sectional, elevational view of the same.

Figure 3 is a fragmentary view of a rubber sealing band, showing the protecting plate as mounted upon it.

Figure 4 is a sectional plan of the can of Figures 1 and 2, section being supposed in the plane of the center of the channel.

Figure 5 is a sectional elevation of a can provided with a channel in which is seated a metallic sealing band.

Figure 6 is a sectional plan of the same.

Figure 7 is a fragmentary view, in perspective, of a portion of the sealing band shown in Figures 5 and 6.

Similar letters of reference indicate corresponding parts.

Generally stated, my invention comprehends a sheet metal can in the side body or wall of which are formed, preferably in the process of manufacture, one or a series of delivery holes or openings through which the contents of the can may be removed,—and of a sealing band or fillet encompassing the can and covering and closing the delivery opening or openings referred to.

A convenient embodiment of my invention depicted in the first four figures of the drawings, comprehends a cylindrical can in which the delivery opening or openings occur in a circumferential channel formed in the side body,—and in which the contractile sealing fillet consists of a rubber band the transverse dimensions of which adapt it to accurately fit the channel and which is expanded into place within said channel in position to cover and seal the delivery openings referred to.

Referring, first, to said first four figures of the drawings, A indicates a cylindrical can, having the heads B seamed or secured thereto in any usual manner, and the body provided with a circumscribing channel C, shown as a uniform depression, of slight depth, plane as to its bottom, and having its edges or side walls abrupt or very nearly in parallelism with the planes of the heads of the can.

The delivery opening or openings D, of which four happen to be illustrated in the embodiment of my invention shown in the figures under construction, are formed in the side body of the can at a point or points in the bottom of the channel.

E is an elastic band, preferably of rubber, and of breadth and depth approximately correspondent to the breadth and depth of the channel C, in order that when the band is seated within the channel it will fill it,—with the result that its own outer surface will be flush with the exterior of the side body of the can and complete its cylindrical contour.

The normal diameter of the elastic band E is preferably slightly less than the diameter of the can at the base of the channel, in order that the band when in place in the channel may be in a slightly expanded condition, to the end that it may closely hug the can and thereby effect the more complete sealing of the delivery openings.

In the manufacture of the cans I prefer to roll the channel and to form the delivery openings in the metal while the latter is still in

the blank; then, to bend up the side body; then, seam one head on; then, spring the band in position; then, fill the can; and, finally, seam the other head in position.

5 Of course, this mode of procedure is merely preferential, and the order of the steps may be altered.

When the cans are employed to hold materials which would injure or affect the integrity of the band, a protecting plate F, of paper, tin, or the like, may be interposed between the band and the bottom of the channel at the point or points where the band passes over the openings D; and said plate may, if desired, be secured to the band, conveniently by a rivet *f*, as shown in Figure 3.

In practice I prefer to paste a piece of paper or light textile material G, shown in dotted lines in Figures 2 and 5, over the openings before the can is filled, and this whether the plate F be employed or not,—with the object of preventing the emergence of the contents in the event of the accidental displacement of the band in the handling of the can.

25 In the use of the device, when it is desired to withdraw a portion of the contents, the band is removed, and the can agitated or subjected to slight concussive action to cause the contained material to sift out through the delivery openings.

In the embodiment of my invention illustrated in Figures 5, 6 and 7, the channel C or seat for the sealing band, is formed at one end of the can between the projecting head seam on the one hand and a projecting circumferential bead *c*^x struck up or out from the can body at a suitable distance from and in parallelism with said head seam on the other.

40 In this embodiment of my invention the bottom of the channel is flush with the side body of the can, as opposed to the construction illustrated in Figures 1 and 2 in which the channel is shown as a depression strictly as such.

A single delivery opening D is shown as formed in the bottom of the channel C of Figures 5 and 6.

50 The contractile sealing band E' shown in Figures 5, 6 and 7, is formed of a strip of metal,—as, for instance, the same metal as that from which the can body is made,—of breadth equal to the breadth of the channel, having a delivery opening *e*⁵, and provided as to its respective extremities with the hook-like ends *e*² *e*³, and as to its body with series of transverse crimps or corrugations *e*⁴.

In applying this sheet metal band to the can, it is to be placed about the can and in the channel C, and its hook-like ends *e*² *e*³ are to be engaged with each other and secured in such engagement by the action of any suitable tool as will compress or flatten them upon each other, with the result that 65 the bill of each hook, so to speak, will be

compressed between the bill and shank of the other hook.

The proportions of the parts are preferably such that the crimped or corrugated band when placed upon the can is not sufficiently long to permit of its hooked ends being mutually engaged until traction is exerted upon the band to slightly lengthen it by flattening or extending its crimps or corrugations *e*⁴,—with the result that, when the extremities of the band have been so engaged, the effort of the corrugations or crimps to reassume their normal set will cause the band to hug the can body with a firm though yielding pressure.

When it is desired to remove material from the can, the band is rotated to carry its delivery openings *e*⁵ into registry with the delivery opening D, and as indicated in Figure 6, it is manifest that the crimps or corrugations will afford a convenient means by which the fingers of the user may seize the band to effect the desired rotation.

In this embodiment of the invention, as also in that of the first four figures of the drawings, I prefer to paste a slip of paper G, or light textile or similar material, over the delivery opening of the can.

Having thus described my invention, I claim—

1. A package provided with a circumferential channel in which is formed a delivery opening covered by a slip of paper or other light material secured to the body of the package, and a contractile sealing band mounted in said channel, substantially as set forth.

2. A cylindrical metallic package embodying a circumferential channel and a delivery opening formed in the base of the same, and an elastic band mounted and fitting in said channel and covering said delivery opening, substantially as set forth.

3. A metallic package provided with a channel extending about it, a delivery opening formed in the base of said channel, a rubber band mounted within said depression and extending across said delivery opening, and a protecting plate interposed between said rubber band and said opening,—substantially as set forth.

4. A metallic package provided with a channel extending about it, a delivery opening formed in the base of said channel, a rubber band mounted within said channel and extending across said delivery opening, and a protecting plate interposed between said rubber band and said opening, and secured to said rubber band,—substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 15th day of June, A. D. 1897.

GEORGE H. PERKINS.

In presence of—

F. NORMAN DIXON,
THOS. K. LANCASTER.