Sept. 7, 1943. G. G. BUTTERMANN 2,328,615

SANITARY MASTER-TUBE FOR SHIPPING AND DISPENSING ICE-CREAM CONES FROM INDIVIDUAL ENCLOSED TUBES

Filed March 24, 1941

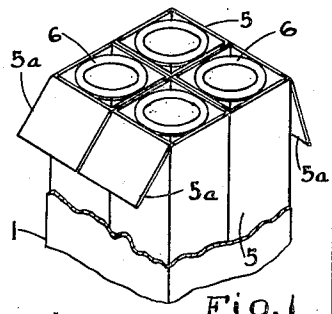


Fig. 1

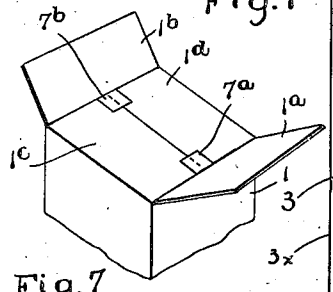


Fig. 7

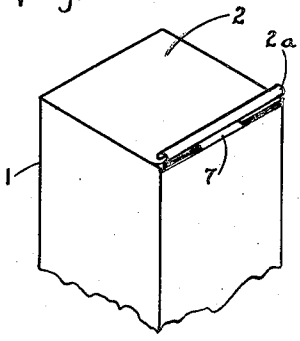


Fig. 2

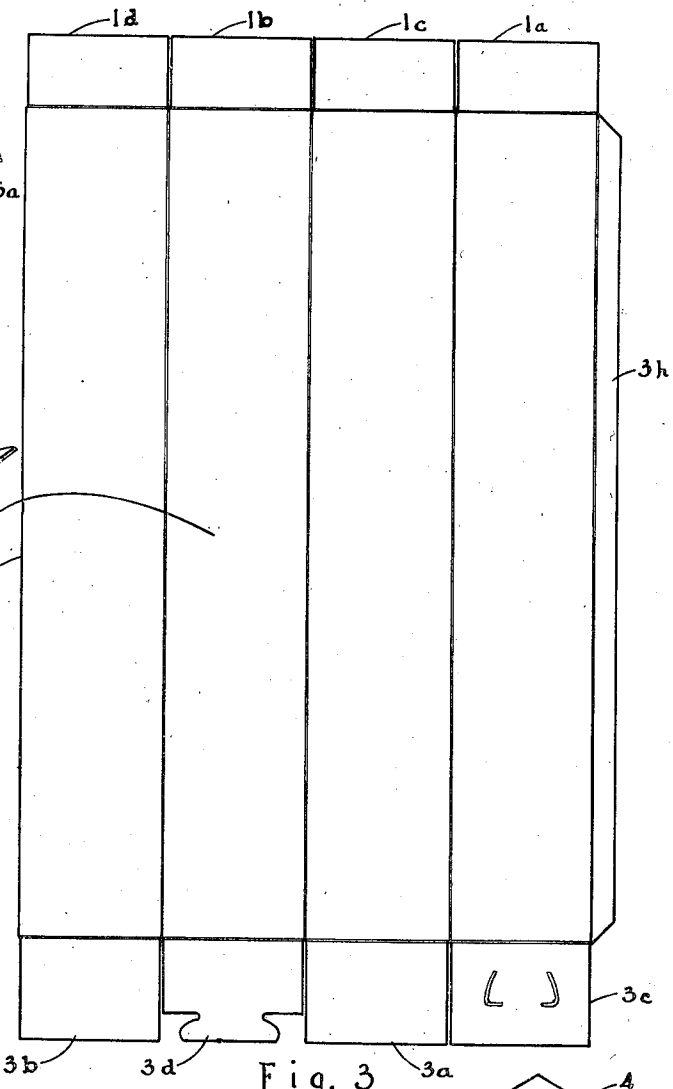


Fig. 3

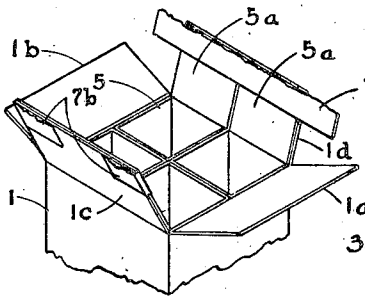


Fig. 4

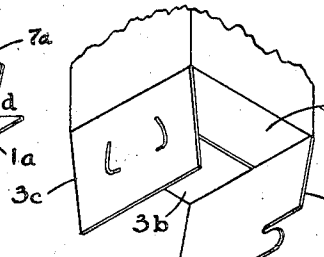


Fig. 5

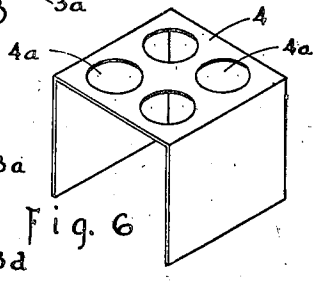


Fig. 6

INVENTOR.
GARRY GEORGE BUTTERMANN.
BY HIS ATTORNEY, Eugene E. Stevens

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SANITARY MASTER TUBE FOR SHIPPING AND DISPENSING ICE-CREAM CONES FROM INDIVIDUAL ENCLOSED TUBES

Garry George Buttermann, Louisville, Ky.

Application March 24, 1941, Serial No. 385,000

1 Claim. (Cl. 206—56)

My invention relates generally to devices adapted for packing, shipping and dispensing food products, and specifically to master-tubes for shipping and dispensing ice-cream cones.

My present invention relates expressly and directly to a previous invention of mine, the application for which was filed in the United States Patent Office March 29, 1940, Serial No. 326,761, for Self-closing dustproof support for dispensing cases for ice-cream cones. The application has matured into Patent No. 2,289,099, granted July 7, 1942. And my present invention is a new and useful sanitary master-tube for shipping and dispensing ice-cream cones from the individual enclosed tubes packed therein. My present sanitary master-tube has been designed to fit into said dust-proof support described in said application.

One object of my present invention has been to design my said master-tube so that all parts thereof may be die-cut at once, as one integral piece from slabs of cardboard and adapted to be readily glued along its side and stored in a flat condition for future use. Another object of my invention has been to provide, at the lower end of my said master-tube, four flaps adapted to be readily clamped together to form a practically closed bottom-end for securely protecting the contents thereof in shipping. Another object in my present invention, has been the construction of a perforated rectangular baffling arch made to fit the interior of said master-tube, the lower ends of said arch resting against the locked flaps at the bottom of said tube and the upper portion of said arch contacting the sides of the enclosed cones to protect the lower ends of said cones from contact in shipping.

One special object of my invention has been to provide facilities at the upper ends of said tubes for the development of a process for the rapid and efficient sealing of the upper end of said master-tube, so as to hold the enclosed cone-tubes in their service position and to protect the contents therein securely from any surrounding atmospheric dust and moisture. Other objects of my invention will appear in the process of this specification.

These foregoing objects have been attained in my instant invention and my new and useful sanitary master-tube for shipping and dispensing ice-cream cones from individual enclosed tubes, illustrated in the accompanying drawing forming a part of this specification, is a practical invention embodying the aforesaid novel means and other new and useful details of construction, arrangement and combination of parts, all of which, together with their fuctions, will be described in detail with reference to said drawing, and will be definitely pointed out in the claim that follows this description, so that any person skilled in the art may be able to construct and use this invention.

In said drawing: Fig. 1 is a perspective view in elevation of a fragment of the master-tube cut away a short distance below its top showing the enclosed cone-tubes in their normal position, ready to be covered in.

Fig. 2 is a perspective view in elevation of the top of the master-tube all sealed for service, except the crevice at the top of the right side thereof, where the top-sheet of sealing paper is shown curled up disclosing a sealing tape at the middle of said crevice.

Fig. 3 is a plan view of the die-cut cardboard of which said master-tube is constructed, showing score-lines thereon for folding, also four rectangular top-end flaps and four bottom-end flaps, for closing the ends of the master-tube.

Fig. 4 is a perspective view in elevation of the upper end-portion of said master-tube and the enclosed cone-tubes, showing some of the facilities for holding the enclosed tubes in their service position and for protecting the contents thereof from any surrounding atmospheric dust and moisture.

Fig. 5 is perspective view in elevation of the lower portion of the master-tube, showing said four flaps adapted to be clasped together forming a closed bottom-end for protecting the contents of said tube in shipping.

Fig. 6 is a perspective view in elevation of the rectangular baffling arch, adapted to fit in the lower end of the master-tube, and showing the large perforations in the upper portion thereof, whose perimeters are adapted to engage the sides of the lower cones in the enclosed cone-tubes.

Fig. 7 is a perspective view in elevation, of the upper end of said master tube with the hinged flaps thereof closed down upon both pairs of the adjacent cone tube flaps and sealed by means of the extensions of a strip of adhesive tape to close the upper end of said master tube.

This invention has been designed and experimentally developed in its detail of parts for the purpose of producing at a minimum of cost, a durable and sanitary master-tube convenient for shipping and dispensing ice-cream cones. And with said purpose and the special objects aforesaid in view, I will describe my invention more fully in detail, pointing out the new and useful

features of the construction and the assembling of the individual parts and the combinations thereof, as illustrated in the drawing hereinabove described, in which similar letters and characters refer to similar parts throughout the several views.

In the invention and development of my sanitary master-tube for shipping and dispensing ice-cream cones, for the sake of economy in production, I have designed said master-tube 1, so that it can be quickly and easily made up of the die-cut piece 3 of cardboard, as shown in Fig. 3, including the upper end-flaps, 1*a*, 1*b*, 1*c* and 1*d* and the lower end-flaps, 3*a*, 3*b*, 3*c* and 3*d*, with the side attachment-lap 3*h* adapted to be glued along its adjacent side 3*x* of said tube. All parts of said master-tube are thoroughly treated with sizing and wax to render the tube moisture-proof.

Assembling and loading the master-tube

In assembling the master-tube, after the integral piece 3 of cardboard has been die-cut and the side-flap 3*h* has been glued to the inside of its adjacent side 3*x* of the master-tube, I fold back said upper flaps of the master-tube against their respective adjacent sides of the master-tube, holding them in that position with a rubber band. Then upon a pedestal adapted to hold four cone-stacks, I build four stacks of 25 cones each, with the lower ends of the cones, 6, 6, standing upward. Then with the top-ends of the cone-tubes, 5, 5, open, I push said tubes, one at a time down over each of said cone-stacks, filling the cone-tubes, 5, 5, with the ice-cream cones, 6, 6, as shown in Fig. 1. Each of these cone-tubes, 5, 5, is provided at its top-end with an integral flap on one side thereof, which covers the top of its respective tube, after the master-tube 1 is filled with the cone-tubes, closed and sealed. These cone-tubes, 5, 5, enclosed in the master-tube 1 relate to a previous invention of mine, the application for Letters Patent on which invention was filed in the United States Patent Office, Feb. 8, 1940, Serial No. 317,961, for a Sanitary sales tube for dispensing ice-cream cones. The lower ends of these cone-tubes, 5, 5, therefore, are adapted to support the stacks of cones, 6, 6, in said tubes allowing the lower portion of the bottom-cone in each of said tubes to project below said cone-tubes, so that said cones may be drawn out manually, one by one, from the lower ends of said cone-tubes, until said tubes are empty.

Now these four cone-stacks built on said pedestal are inside the four cone-tubes, 5, 5, as I have explained above; and said tubes stand together in a rectangular cluster on said pedestal, with their top-ends down and their bottom-ends pointing upward. I next insert into the bottom-end of the master-tube 1, the rectangular baffling arch 4 with the circular perforations, 4*a*, 4*a*, thereof set inward to brace the sides of said bottom-cones therein. Then I close the bottom-end of said master-tube by folding inward its two bottom flaps, 3*a* and 3*b*, and by clasping together over them the other two bottom-flaps, 3*c* and 3*d*.

I now raise the master-tube 1 and push the open top-end thereof down completely over the four cone-tubes, 5, 5, set close together in a rectangular cluster on said pedestal.

I have explained hereinabove that I make use of a pedestal in building the four cone-stacks. And, for convenience in building the cone-stacks, I also place the bottom cone of each stack over a solid cone-core fixed in said pedestal; but neither said pedestal nor said core is necessary in building said cone-stacks, as the cone-stacks may be built up on any plane, level board or table-top, and set together in rectangular clusters, of four each, so that the master-tube 1 in being filled may be pushed down over each of said clusters, as I have above explained. And this latter process might be preferred by any one else, doing a more extensive business. Consequently, I have shown neither said pedestal nor said cone-core in my drawing, nor do I claim them.

Now that we have the bottom-end of the master-tube 1 closed with its flaps, 3*a*, 3*b*, 3*c*, and 3*d*, and said tube filled with the cone-tubes, 5, 5, as shown in Fig. 1, we have only to close and seal the top-end thereof to make said tube ready for shipping or dispensing the cones therein. And this process is accomplished in the following way:

I first select a piece of broad adhesive tape 7 of predetermined width and somewhat longer than the cross-sectional diameter of the master-tube 1; and I lay said piece of tape sticky-side up, across the open top-end of the cone-tubes, 5, 5, midway between the opposite integral flaps, 5*a*, 5*a*, thereof; and upon the up-turned sticky side of said adhesive tape; I fold down forcibly all four of the integral top-end flaps, 5*a*, 5*a*, of said cone-tubes, and upon these integral flaps, 5*a*, 5*a*, I fold down the opposite flaps, 1*c* and 1*d*, and over the opposite edges of these opposite flaps, 1*c* and 1*d*, I fold the free opposite ends of the tape 7, pressing the sticky side of said tape down tightly upon the opposite flaps, 1*c* and 1*d*, thus holding them fixed in their service position as illustrated in Fig. 4, by the reference characters, 7*b*, 7*b*. Then over these opposite flaps, 1*c* and 1*d* I fold the other two opposite two-end flaps, 1*a* and 1*b*; and over these flaps 1*a* and 1*b* I glue a piece of moisture-proof covering paper 2 of predetermined size as shown in Fig. 2, securely closing the joint between the flaps 1*a* and 1*b* and covering the opposite crevices between the inner flaps, 1*c* and 1*d* and the outer flaps, 1*a* and 1*b*. Thus the top-end of said master-tube is closed and sealed against the entrance of any surrounding atmospheric dust and moisture.

The four internal cone-tubes are held in their respective service positions in the master-tube, by means of the top flaps, 5*a*, 5*a* and the adhesive tape 7 fixed thereon, as shown in Figs. 2 and 4. In Fig. 7, it should be noted that both pairs of adjacent cone-tube flaps, 5*a*, 5*a*, of the enclosed cone-tubes have been closed down under the opposed overlying and contacting hinged flaps 1*c* and 1*d* of said master-tube, their free ends being in substantial abutting relation and securely sealed by means of the extensions, 7*a* and 7*b*, of the strip 7 of adhesive tape.

In Fig. 4 I have shown how the adhesive tape 7 is stuck onto the undersides of the integral top-end flaps, 5*a*, 5*a*, of the cone-tubes, 5, 5, and showing one-half 7*a* of the tape 7 stuck thereon with the free opposite ends of said take standing out beyond the opposite edges of the top-end flap 1*d* of said master-tube. Also on the opposite side of said master-tube I have shown how the free ends of the other half 7*b* of the tape 7 are folded over the opposite edges of the top-end flap 1*c* of said master-tube.

This master-tube 1 is now ready for shipping or dispensing ice-cream cones. If said tubes are to be shipped away, they may be shipped singly or crated in greater or less quantities. But when the cones therein are to be dispensed, this master-tube 1 should be set into the self-closing dust-

proof support for dispensing-cases for ice-cream cones, mentioned in lines 8–12, col. 1, of page 1 of this specification. And before setting this master-tube 1 into said self-closing, dust-proof support or into some other similar support provided with a self-closing bottom that will allow the enclosed cones to be drawn manually from the enclosed cone-tubes, one at a time, I first open the bottom-end flaps, 3*a*, 3*b*, 3*c* and 3*d*, of said master-tube and remove the cone-baffling arch 4 therefrom. Then I straighten down said bottom-end flaps and push them down into said support, bracing them against the bottom-edge thereof to hold said master-tube in its normal service position in said support. Said master-tube support should be mounted on a bracket fastened to a dispensing counter or to an adjacent wall.

To illustrate clearly the functions of the broad adhesive tape 7, in Fig. 4 I have represented said tape as torn into two pieces, one piece 7*a* sticking onto the under sides of the top-end flaps, 5*a*, 5*a* of the enclosed cone-tubes, 5, 5, having the ends of the piece 7*a* standing out before being folded; and the other piece 7*b* sticking to the under side of the opposite top-end flaps, 5*a*, 5*a*, of the tops of the other two enclosed cone-tubes, 5, 5, with the ends of the piece 7*b* folded over the opposite edges of the flap 1*c* of the master-tube 1, showing the position of the tape 7 when the top-end of said master-tube is finally closed and ready to be covered with the moisture-proof covering paper 2 glued over the top-end thereof.

The specific detail of the various parts of the present embodiment of my invention, as I have illustrated in the drawing thereof and fully described, are not to be considered as limitations in the constructions of my sanitary master-tube for shipping and dispensing ice-cream cones from individual enclosed tubes. Accordingly it should be understood that I may make desirable modification in these said details to facilitate production or to economize in the fabrication thereof, provided I keep practically within the scope of my invention and claim.

Now, having thus described the various features of my invention, the detail construction, arrangement and combination of its parts, as well as their functions, and the ways and means of its operation and application; those features and operations of my new sanitary master-tube for shipping and dispensing ice-cream cones from individual enclosed tubes, that I consider new and useful, for which I desire Letters Patent granted to me, I have hereinbelow set forth and specifically described in the following claim, I claim:

In a sanitary master-tube of square cross-section adapted for shipping and dispensing ice-cream cones from individual enclosed tubes, a conventional die-cut piece of cardboard, having conventional score-lines thereon for folding, said conventional piece being provided with a long side-lap for attachment in forming said master-tube; four equal rectangular flaps hinged on the upper end of said conventional die-cut piece for closing the top-end of said master-tube; four flaps on the lower end of said conventional die-cut piece for closing the bottom-end of said master-tube, two of said lower end-flaps being adapted to be clasped together; four square cone-tubes enclosed in said master-tube and adapted to fit snugly therein, each of said cone-tubes having one top closure flap, said flaps being arranged in pairs, said pairs being hinged along opposed sides adjacent the hinges of opposed master-tube flaps and in closed position having their free ends in substantial abutting relation, a strip of adhesive tape underlying and underlapping the abutting ends and secured to the inner face of each cone-tube flap adjacent its free end, said strip being provided with extensions, said last named master-tube flaps overlying and contacting the cone-tube flaps and the extended ends of said strip overlying and secured to the upper face of said master-tube flaps, said remaining master-tube flaps overlying said last named flaps and sealed in position to close the package.

GARRY GEORGE BUTTERMANN.