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E. P. DURAND

1,964,623

SANITARY AUTOMATIC SERVER

Filed Nov. 7, 1933

Fig. 1.

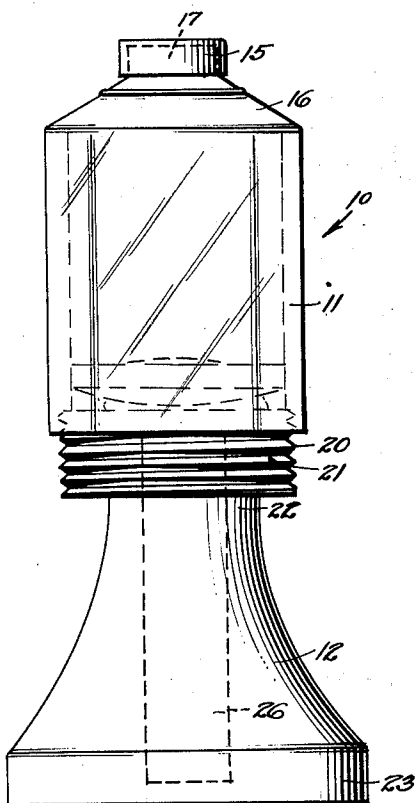


Fig. 2.

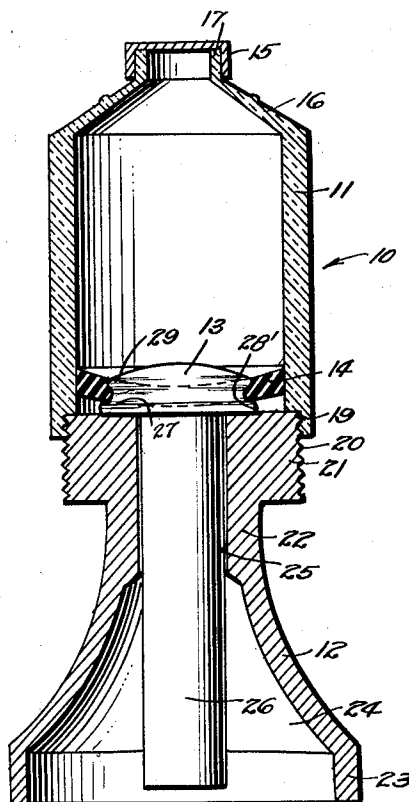


Fig. 3.

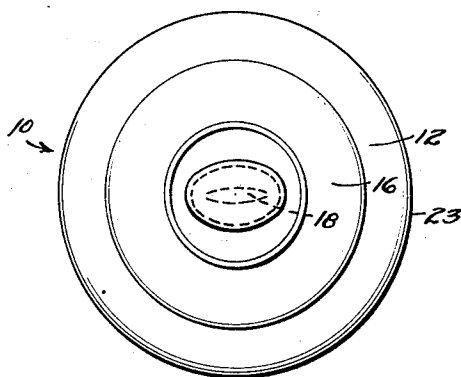
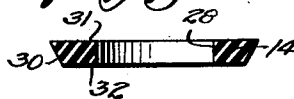


Fig. 4.



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UNITED STATES PATENT OFFICE

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SANITARY AUTOMATIC SERVER

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1 Claim. (Cl. 65—45)

This invention relates to a sanitary automatic server and has for an object to provide an improved sanitary automatic server especially intended for serving mustard, mayonnaise, catsup, whipped cream, etc.

A further object of this invention is to provide a sanitary automatic server especially intended for use with pasty materials, which server may be easily refilled and which will dispense its contents in a wide, flat ribbon in a sanitary manner.

A further object of this invention is to provide a sanitary automatic server having a minimum number of parts which are easily and quickly separable from each other, thereby greatly reducing the cost of manufacture and of assembly of the completed article and furthermore making the completed article easily separable, both for refilling and for cleaning.

Still a further object of this invention is to provide a sanitary server wherein the contents are discharged from one end thereof by the passage therethrough of a piston head operated from the other end thereof, the piston head being provided with a piston ring which will contract as the piston is being advanced to give a more thorough wiping effect on the inside of the server.

With the foregoing and other objects in view, as will hereinafter become apparent, this invention comprises the constructions, combinations and arrangements of parts hereinafter set forth, claimed and illustrated in the accompanying drawing:

Fig. 1 is a side elevation view of the invention.

Fig. 2 is a vertical sectional view of the same.

Fig. 3 is a top plan view of the same.

Fig. 4 is a sectional view of the gasket.

The sanitary automatic server 10 constituting this invention consists of a minimum number of parts, consisting of an open ended cup 11, an integral base or stand 12, a piston 13, a soft rubber bevelled piston ring 14 and a closure cap 15. Obviously, if desired, the closure cap 15 might be omitted, thereby reducing the total number of parts to four.

The cup 11 is preferably made of glass, although porcelain or other similar or suitable material may be used. The cup 11 has a converging neck 16 leading to the discharge or exit nozzle 17. As will be seen from Figure 3, this discharge nozzle 17 is oval shaped in cross section and has a narrow, elongated discharge opening 18 so that any material of a pasty nature passing from the cup 11 through the nozzle 17 will be dispensed in a flat, ribbon-shaped strip.

The inside of the cup 11 will be generally cir-

cular in cross section and its other and open end is internally threaded as at 19 for detachably receiving the thread 20 of the threaded head 21 of the base or stand 12. This base or stand 12 consists of this threaded head 21, a contracted neck portion 22, and a base or supporting portion 23. The base or stand 12 is hollow and has a flaring opening 24 leading to a cylindrical opening 25 extending through the neck 22 and head 21. This cylindrical aperture 25 provides a passage-way for the plunger 26 integrally secured to the piston 13. The diameter of the plunger 26 is sufficiently less than the internal diameter of the cylindrical opening 25 to allow air to pass therethrough and to prevent the creation of a vacuum below the piston ring 14.

The piston 13, which is of substantially less diameter than the internal diameter of the cup 11, is provided on a side with a recess 27, the diameter of the piston 13 at this recess 27 being slightly greater than the diameter of the opening 28 of the soft rubber piston ring 14. As the result of this, the ring 14 will remain firmly in position on the piston 13 when it is placed in position thereon by being stretched thereover.

As will be observed, the lower edge 28' of the piston 13 is of somewhat greater diameter than the upper edge 29 of the piston 13 above the recess 27. The recess 27 is of slightly less width than the thickness of the ring 14, all of which tends to form the normally flat piston ring 14 into a cup, as shown in Figure 2. Further, the outside edge of the ring 14 is beveled as clearly shown in Figure 4, as at 30, thereby causing one face 31 of the piston ring 14 to be of greater diameter than the other face 32. The diameter of face 32 and also of face 31 is somewhat greater than the internal diameter of the cup 11, thereby assisting in forming the piston ring into a cup when in position, the face 31 of greater diameter being placed on the side toward the discharge nozzle 17 in the cup 11.

To fill the server 10 with mustard, mayonnaise, or other similarly pasty condiments or paste, the cup 11 is removed from the head 21 of the stand 12 by merely unthreading the thread 20 from the thread 19. The material is then placed within the cup 11, leaving the open end somewhat empty to allow it to be reassembled. The plunger or piston 13 is then placed within the cup 11 with the bevelled piston ring 14 in proper position thereon and the base 12 brought up over the piston plunger or stem 26 and threaded into the cup 11, it being observed that the piston plunger or stem

26 fits smoothly through the cylindrical aperture 25.

The cap 15 is mainly for the purpose of preventing dust from entering through the opening 18 in the exit nozzle 17. To dispense the material within the server 10, the cap 15 is removed, the server is up-ended and the piston 13 advanced by pressing its stem or pointer 26 until the proper amount of material has been dispensed. The cap 15 is then replaced and the server 10 again placed on its base portion 23. As the result of the particular construction described and particularly the several edges on the piston ring 14 and the cup-like shape it takes in operation, the inside of the cup 11 is wiped very clean as the piston is advanced therethrough. When the piston 13 is to be retracted as for refilling, the piston ring 14 is relieved from compression, allowing air to escape thereby and thus preventing the creation of a vacuum with a consequent displacement of the material within the container 11, thus preventing air from being drawn into the container 11 through the nozzle 17 and allowing the cup or container 11 to be maintained in a desired filled condition.

The novel features and the operation of this device will be apparent from the foregoing description. While the device has been shown and the structure described in detail, it is obvious that this is not to be considered limited to the exact form disclosed and that any changes may be made therein within the scope of what is claimed without departing from the spirit of this invention.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

As an article of manufacture, an automatic

sanitary server, a hollow stand serving as a handle, comprising an enlarged supporting base, a contracted neck portion, and an enlarged threaded head integrally formed in one piece, a cylindrical opening extending through said head and neck into said base portion, an inverted open ended cup threadedly secured on said threaded head of said stand, a nozzle for the exit end of said cup, a piston head adapted to travel within said cup to force the contents thereof through said nozzle, said piston head being of substantially less diameter than the internal diameter of said cup, said piston head being grooved to form an annular recess, a replaceable soft rubber piston ring having an opening therein of less diameter than the diameter of said piston head whereby said piston ring may be stretchably secured on said piston head in said recess, the diameter across said piston ring being greater than the internal diameter of said open ended cup, the outer edge of said piston ring being beveled, the face of said piston ring having the greater diameter being nearer to said exit nozzle of said cup, and a plunger secured to said piston head extending through the cylindrical opening in said hollow stand, whereby said piston ring will be placed under compression as the piston is advanced through said cup and will be relieved from compression as said piston is retracted through said cup, said exit nozzle being oval-shaped in cross section, the opening through said nozzle being narrow and elongated whereby to dispense a flat ribbon of the contents therethrough, and a closure cap for said nozzle.

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