April 16, 1929. J. H. BRADY 1,709,771

MULTIFILLER COMMUNION SERVICE

Filed Aug. 11, 1926 2 Sheets-Sheet 1

Fig. 1.

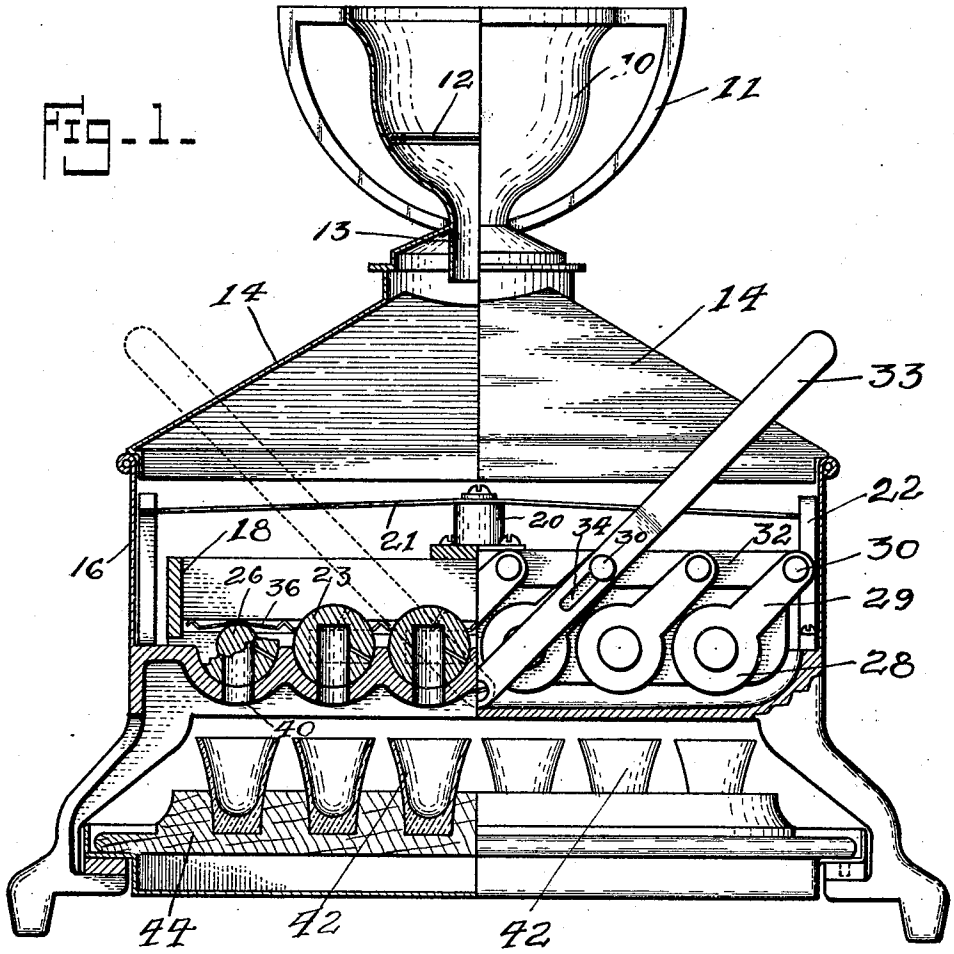


Fig. 2.

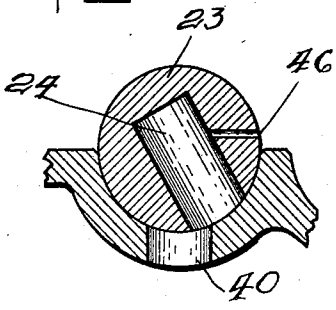
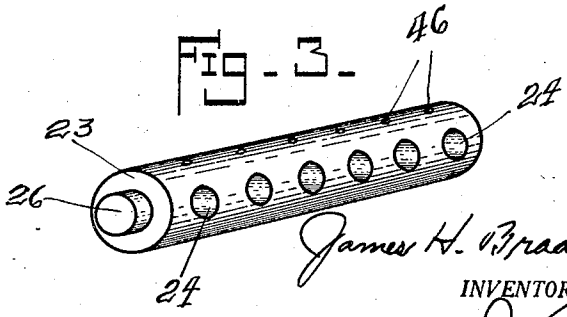


Fig. 3.



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Fig. 4.

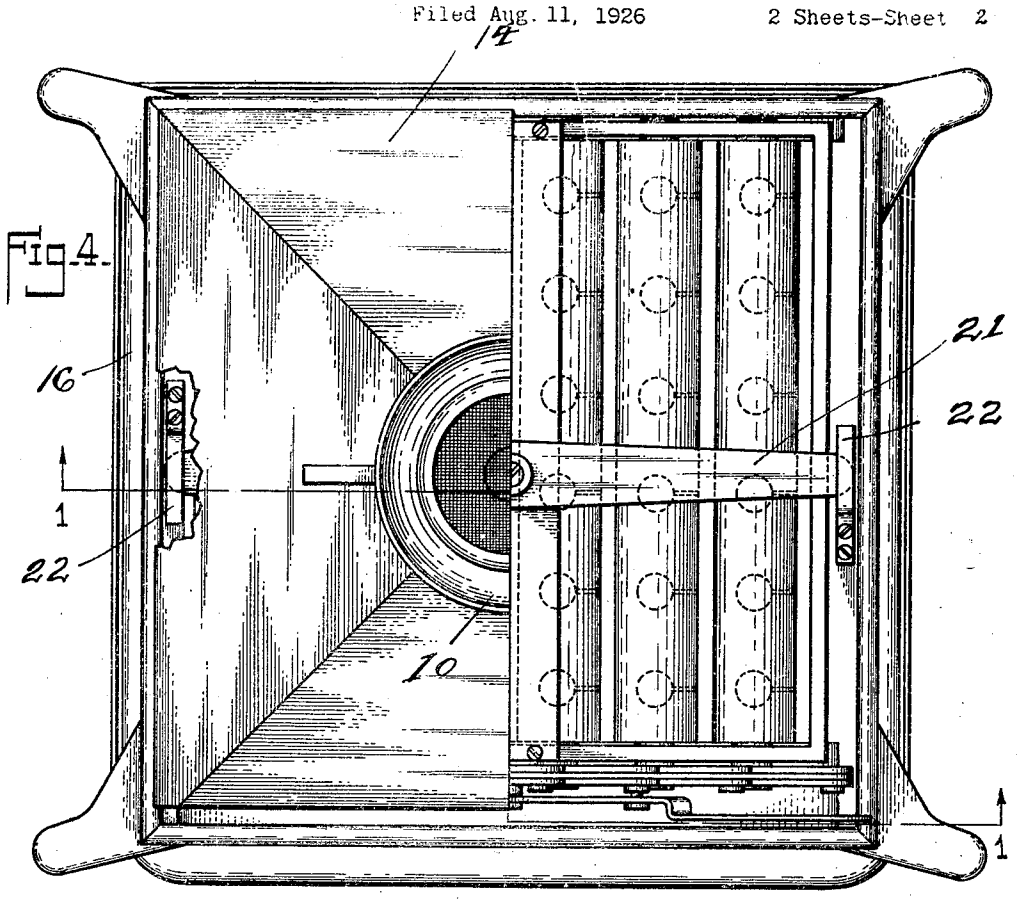
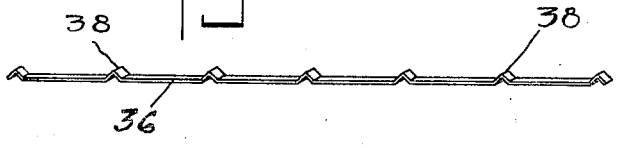


Fig. 5.



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UNITED STATES PATENT OFFICE.

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MULTIFILLER COMMUNION SERVICE.

Application filed August 11, 1926. Serial No. 128,522.

This invention relates to an improved multi-filler communion service, and the present invention constitutes an improvement on applicant's originally filed case, Serial No. 653,890, filed July 26, 1923.

One of the main objects of this invention is to provide a device for filling a plurality of communion glasses or other receptacles at a single operation and with a measured quantity of liquid.

Another important object of this invention is to provide a communion tray filler which will eliminate any gurgling, splashing, or spilling of the wine when the same is dispensed into the plurality of glasses at a single operation.

Another important object of this invention is to provide, in an improved dispensing device, means for positively emptying each compartment into its respective glass or container, thereby eliminating any possibility of one or more of the glasses remaining unfilled.

Still another important object of this invention is the positive prevention of leakage, in a communion filler of the class described.

Another and still further important object of this invention is an improved mechanism for operating a plurality of dispensing rollers at a single movement, while at the same time eliminating any tendency of the rollers to bind during such movement on account of any connection between the rollers themselves.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawings and following specification.

The invention, in a preferred form, is illustrated in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 is a front elevation of the improved filling and dispensing apparatus of this invention, portions being shown in section, and the operation being shown in dotted lines.

Figure 2 is a detail sectional view of one of the dispensing rollers, showing its supporting bed.

Figure 3 is a perspective view of one of the dispensing rollers.

Figure 4 is a top plan view of the device, one-half of the cover being broken away to show the dispensing rollers and the mounting therefor.

Figure 5 is a perspective view of one of the leaf springs for maintaining the rollers in desired position.

As shown in the drawings:

The reference numeral 10 indicates generally a communion goblet for the dispensing of sacramental wine or the like, but which obviously may be replaced in other modifications of the invention by other receptacles. Handles 11 are provided, and a screen or sieve 12 is positioned in the goblet 10 as illustrated, for the purpose of straining the material used.

The goblet 10 is securely attached to a form of lid or cover 14, which is positioned upon the main body portion 16 of the dispensing apparatus and is readily removable therefrom. A tubular extension 13 extends downwardly from the goblet 10, as illustrated, for the purpose of preventing the wine, grape juice, or other liquid from adhering to the under side of the top and running down. The body 16 is in the form of an open container, and is preferably square in cross section, but the shape may naturally be varied as desired or convenient.

A dispensing tray 18 is positioned in the body 16, as shown in Figures 1 and 4, and is preferably constructed to be readily removable therefrom. A leaf spring or other suitable retaining means 21 is mounted horizontally across the top of the tray 18 upon a suitable upwardly extending support 20, and is pivoted thereon so that its ends may be depressed slightly and ride under corresponding hooks or the like 22 attached to the sides of the body 16, whereby the tray 18 is positively fastened in place.

The bottom of the tray 18 is provided with a plurality of delivery rollers, as shown at 23, each roller having therein a number of dispensing openings or sockets 24. At each end of the roller is provided an extending integral shaft 26 which is journaled in suitable

bearings in the sides of the tray 18. One end of each of the shafts 26 extends beyond the side of the tray 18 and along this side each shaft extension is fitted with a disc or other operating element, as best illustrated at 28. An extension 29 is mounted on or is integral with each disc 28 forming an extending lever which is pivotally mounted as at 30 to a transversely extending operating bar 32. At the middle of the side of the tray is pivotally mounted a handle operating lever 33, which has a slot 34 therein, and in this slot rides one of the pins 30 constituting the pivoted connection between the extending levers 29 and the bar 32 above described. In this manner all of the rollers can be operated at one time.

In order to additionally maintain the rollers 23 in desired position in their half round beds a leaf spring 36, substantially flat, and extending across the width of the container 16, is provided adapted to contact with the shafts 26 upon the ends of the rollers 23. In order to maintain this leaf spring in positive contact with the said shafts integral upstanding elements are provided, as best shown at 38 in Figure 5, which fit against the under face of a corresponding shelf or the like forming part of the tray 18, and as shown in Figure 1, those portions of the spring intermediate the elements 38 are bent upwardly upon contacting with the shaft 26, and the resultant tension accordingly maintains all of the rollers in position, each as an independent unit, and as separate and distinct from any of the others.

Suitable openings 40 are provided in the bed of the tray 18 whereby wine or other liquid contained in the pockets 24 of the rollers 23 can be emptied downwardly into glasses 42 positioned beneath the tray in suitable sockets in a removable holder 44. In order to assure of the positive emptying of the contents of each opening 24 into its corresponding glass 42, passages 46 are formed in the rollers, one passing into each opening 24, as best illustrated in Figures 2 and 3. These passages are so angularly positioned with respect to the openings 24 in the rollers 23 that when the openings 24 are being filled, there will be no leakage through the passages 46 to openings 40 located at the bottom of the roller beds. As the rollers 23 are rotated and as the mouth of the openings 24 begin to register with the openings 40, it will be seen, as shown best in Figure 2 which illustrates the above described period of the cycle of the rotation, that the pressure head of the liquid in the container 18 will be acting upon the liquid in the openings 24 thereby positively ejecting the same. The fact that the openings to the passages 46 are closed when the handle 33 is given its full stroke prevents any leakage of wine therethrough.

In the operation of the handle there is no dead center and no tendency to raising some of the rollers from their beds when the handle is reversed. Further, the action of the spring 36 is such that each element thereof operates as an individual spring on its respective roller shaft.

The rollers may be made of aluminum or any other suitable material, and provided with steel or other jackets, if desired, and also may be formed from hollow tubing when this construction is preferred. The operation may be repeated as often as desired, all that is necessary being the replenishing of the hopper 10 from time to time, and the insertion of a fresh tray of empty cups before each dispensing movement of the handle.

It will be seen that herein is provided a device for accurately dispensing measured quantities of liquid to a plurality of receptacles at a single operation, which eliminates any danger of leakage or spilling. Further, the method of rotating the rollers is superior, as all tendency to lift the rollers from their beds or bearings is positively avoided.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention:

1. A filling and dispensing apparatus, including in combination, a hopper, a plurality of dispensing rollers beneath said hopper, means for operating all of said rollers simultaneously, and a tray for supporting a plurality of receptacles removably positioned beneath said rollers, together with means for individually maintaining each of said rollers in non-leaking position in the tray, said means comprising a leaf spring bearing on the shaft of each roller, the leaf springs for all the rollers constituting a single unit.

2. A filling and dispensing apparatus, including in combination, a casing, a removable cover for said casing, a tray comprising a tank removably positioned within the casing, a plurality of pocketed dispensing rollers positioned in the bottom of the tray, said rollers having relatively small passages therein positioned at an angle to and connecting with the pockets whereby a turning of the rollers exposes the pockets to the liquid in the tank, and means for simultaneously operating said dispensing rollers, said means comprising extended shafts for the rollers, a disc on the end of each shaft, a lever extending outwardly from each disc and in the same plane, a bar connecting all of said disc levers, and a slotted pivoted handle for operation said bar.

3. A filling and dispensing apparatus, including in combination, a hopper, a plurality of dispensing rollers removably positioned beneath said hopper, each roller being provided with a series of pockets, each roller

being also provided with a corresponding series of passages, each passage intersecting each pocket at an angle, and a tray for supporting said rollers, said tray provided with a plurality of semi-circular grooves, one for each roller, the tray having corresponding openings in the bottom for dispensing the contents of said pockets, the angular relation of the pockets to the passages being such that at one period of rotation of the rollers the openings at the bottom of the tray, the pockets and the passages in the rollers form a connection between the inside of the tray and the outside of the dispenser.

In testimony whereof I affix my signature.

JAMES H. BRADY.