No. 650,541. Patented May 29, 1900.

A. McLEOD.

BOTTLE AND MEANS FOR STOPPERING.

(Application filed June 9, 1899.)

(No Model.)

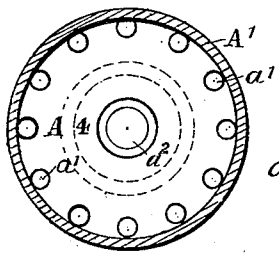

FIG. 2

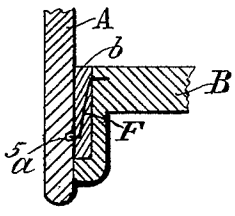

FIG. 3

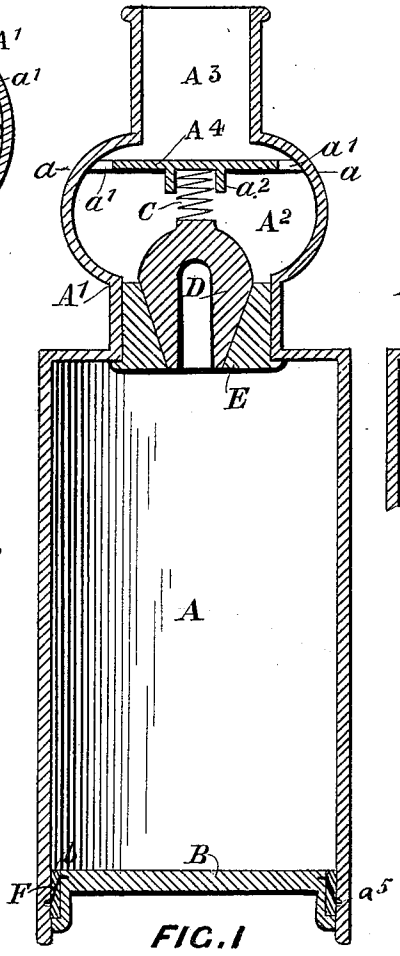

FIG. 1

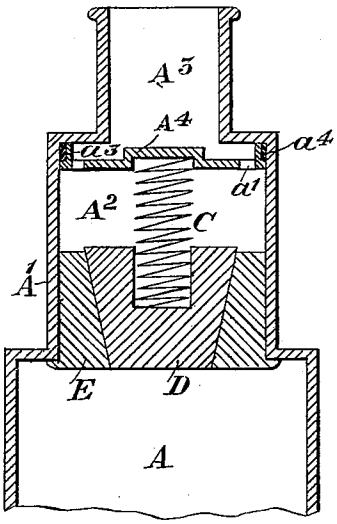

FIG. 4

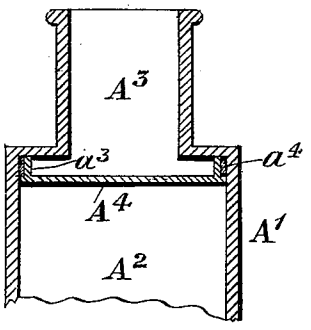

FIG. 5

Witnesses.
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By Richards & Co
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARCHIBALD McLEOD, OF MELBOURNE, VICTORIA.

BOTTLE AND MEANS FOR STOPPERING.

SPECIFICATION forming part of Letters Patent No. 650,541, dated May 29, 1900.

Application filed June 9, 1899. Serial No. 719,924. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD McLEOD, inventor, a subject of the Queen of Great Britain and Ireland, residing at No. 56 Oxford Chambers, Bourke street, Melbourne, in the Colony of Victoria, have invented a certain new and useful Improved Bottle and Means for Stoppering it to Prevent Adulteration of or Tampering With its Contents, of which the following is a specification.

This invention relates mainly to an improved bottle of the type which is so constructed that when once filled it is impossible to pour other liquors into it without breaking a part of the bottle, and hence adulteration of its contents is prevented. Also it relates to a bottle or jar having a second or safety stopper made of some material, such as glass, and which latter has to be forced into the barrel of bottle or jar before its contents can be emptied. Hence prior to the safety-stopper being forced in no adulteration can take place nor can its contents be tampered with.

The invention will now be described, aided by a reference to the accompanying sheet of drawings, in which—

Figure 1 is a central section of my improved bottle; Fig. 2, a sectional plan on line *a a*, Fig. 1; and Fig. 3, an enlarged detail of the rim of the movable bottle. Fig. 4 shows by a central section a modified form of the upper part of bottle, and Fig. 5 a central section of upper part of a bottle or jar provided with the safety-stopper.

The barrel or body A of the glass bottle forming the present invention is made tubular and provided with an open lower end furnished with a close-fitting movable bottom B. The upper part of bottle has a neck A′, which in Fig. 1 is partly tubular and partly spherical, the spherical part forming a chamber A^2 and the tubular part being smaller in diameter than the barrel of bottle in order to leave a shoulder at its upper end, while in Fig. 4 the neck or the neck part A′ is continued up parallel and forms the chamber A^2. Above the spherical part or the said neck A′ is a mouth A^3 of the usual size, in which to insert an ordinary cork or stopper. When the said chamber A^2 is spherical, as shown in Fig. 1, a horizontal disk A^4 is formed within it, just below the lower extremity of the mouth A^3, and such disk has a number of small holes a' in it at its junction with the wall of said spherical chamber, said holes forming the only passage-way between the mouth A^3 and chamber A^2. Below the disk A^4 about its center is a small socket a^2, in which a coiled or helical spring C is arranged and which latter bears on a tapered valve or plug D, made of glass, cork, or other suitable material, said valve fitting neatly into a seating E, formed of similar material to the valve and fitting closely within the neck A′ of bottle. Said spring C, valve D, and seating E are placed in position from the open bottom end of bottle.

When the neck A′ is made parallel, as shown in Fig. 4, it has a similar valve-seating E, valve D, and spring C in it to those before described; but the holed disk A^4 is made separable from the neck A′ and is provided with a rim or flange a^3, which is coated with cork a^4 or other similar material in order that when it is placed in position in the neck-chamber A^2 through the bottom open end of bottle a close joint will be formed around its periphery. The movable bottom B also has a cork or other ring *b* fitting in a recess around its periphery and making a close and tight joint with interior of barrel A of bottles. Also two or more small spring pawls or catches F project from the periphery of said bottom B, the ends of said catches being adapted to take into a small circular groove a^5 made in the interior of barrel near bottom end of bottle, as shown in Figs. 1 and 3, in order that when the bottom B is once pressed into the barrel A of bottle the bottom cannot be withdrawn through the catches F preventing its return outward without injury to either the movable bottom B or the bottle. Said groove a^5 is formed with a taper or lead upward in order to allow the catches to lift out of it when the bottom is pressed upward.

In the parallel neck bottle or jar (shown in Fig. 5) and which may be used for holding chemicals or sauces or other liquids of a like nature the valve-seating, valve, and spring are dispensed with, and the movable disk A^4 is made solid—that is, without the holes a'— so that such disk will form a second or safety stopper, which must be pressed down into the liquid contained in body or barrel of bottle prior to its contents being removed.

My improved bottle is filled through its open bottom after the spring, neck-valve, and its seating have been placed in position, and when filled the movable bottom B is forced into the bottom end of barrel and its spring-catches engage the aforesaid groove to prevent its withdrawal.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a bottle for the purpose specified the combination with the body having a spring-seated valve at the neck end and an open bottom end, of a movable bottom having a rabbet, a packing-ring seated in said rabbet, and springs seated in the bottom and extending through the packing-ring and having free outer ends adapted to engage a groove in the inner face of the body portion, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ARCHIBALD McLEOD.

Witnesses:

BEDLINGTON BODYCOMB,

M. H. FERTSCHKE.