

W. W. MASON.
TREATING CORK FOR BOTTLE SEALS.
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1,059,057.

Patented Apr. 15, 1913.

Fig. 1.

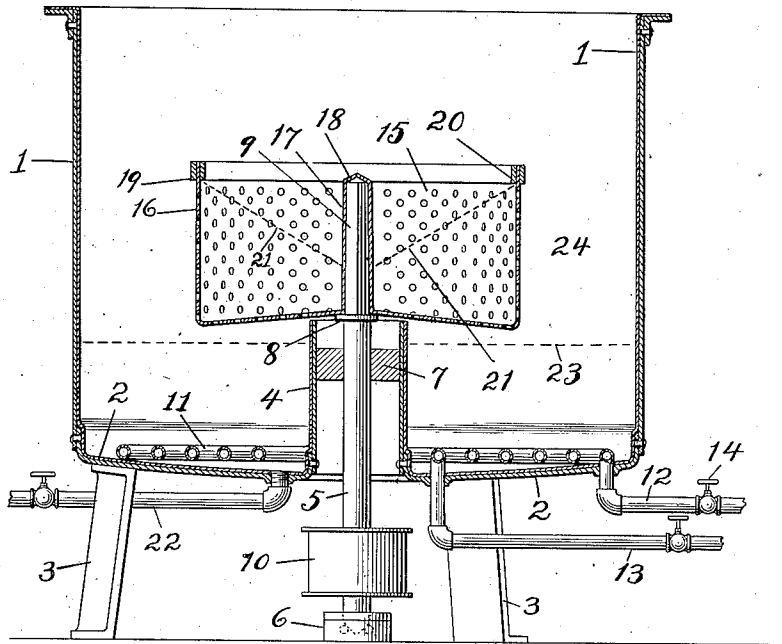
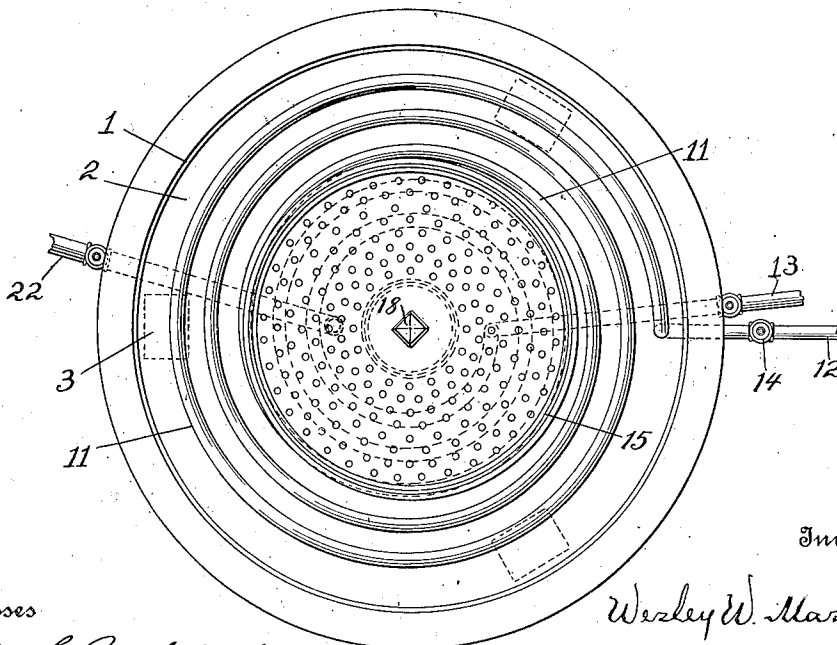


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TREATING CORK FOR BOTTLE-SEALS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WESLEY W. MASON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Treating Cork for Bottle-Seals, of which the following is a specification.

This invention relates to improvements in the art of treating and preparing thin cork disks such as are used in metal bottle-closing caps to effect a tight seal when the cap is on the mouth of a bottle.

The cork disks referred to have pores that contain resinous vegetable matter that is often bitter to the taste, and therefore is liable to injuriously effect the flavor of certain liquid contents that has been confined in a bottle closed or sealed by such cork.

The object of this invention is to provide for the removal of this objectionable bitter vegetable element from corks.

The accompanying drawing illustrates means employed for treating cork. Figure 1 is a vertical diametrical section of the machine. Fig. 2 is a top view of the machine. An upright boiler, 1, is cylindrical in shape and has a bottom, 2, resting on supports, 3; a tube, 4, rises vertically from the center of the bottom the lower end of the tube opening therethrough, and the upper end of the tube also being open. The top of the boiler is open or uncovered. A revoluble shaft, 5, stands vertically, its lower end rests in a bearing, 6; this shaft is round and extends upward through the open tube, 4, and passes snugly through a ring-bearing, 7, that fits in the tube; this ring bearing gives a steady revolution to the shaft. At a point just above the upper end of the tube, the shaft has a fixed collar, 8, and the upper end of the shaft above said collar instead of being round is square, as at, 9. Below the boiler the shaft has a pulley, 10, over which a driving belt may be placed to impart revoluble motion to the shaft. Within the boiler and at or near the bottom, 2, is a coiled pipe, 11; two outer pipes, 12, and, 13, enter through the bottom and the outer coil is connected with the pipe, 12, and the inner coil with the pipe, 13; each of said outer pipes has a valve, 14, to control the flow of the fluid. By this arrangement of coiled pipes, outer pipes and valves, hot fluid may be circulated through the coils and thereby the liquid solution contained within the boiler, 1, and having a depth indicated by

the broken line, 23, may be kept at the desired hot temperature.

A perforated sheet-metal receptacle, 15, has an upright circular wall, 16, and a central upright sleeve, 17, whose interior or passage is square to correspond with the square shaped upper end, 9, of the revoluble shaft; the bottom end of this sleeve, 17, is open in order to slip down over the end, 9, of the shaft, but the top end at, 18, of the sleeve is closed to prevent liquid entering the sleeve. It is desirable that the receptacle be constructed so that it may be placed on and lifted off from the shaft. The receptacle, 15, at its top-rim has a surrounding outer hoop, 19, which reinforces and strengthens the circular wall. The receptacle is also provided with an inner hoop or flange, 20, which serves an important purpose, namely, to check or prevent the centrifugal action from throwing the thin small cork disks outward and entirely away from the receptacle. In the drawing Fig. 1 shows on the receptacle two inclined lines, 21, whose lower ends are both at the central sleeve, 17, and the higher ends at opposite sides are at the said inner hoop or flange, 20; these two inclined lines, 21, indicate the position or form which the small thin cork disks within the receptacle assume at their top surface; this position is due to the centrifugal effect and the checking effect of the inner hoop or flange, 20. The perforated receptacle having the central sleeve, 17, and square-shaped passage, may be filled or charged with the thin cork disks while the receptacle is dismounted or detached from the shaft and the charged receptacle may then be set on the end, 9, of the shaft.

After the treatment of the cork disks has been finished the receptacle, 15, may be lifted off, or detached from the shaft, and by upsetting the receptacle the treated cork disks which are delicate may be removed from the receptacle and placed on a table without injuring them, as would be the case if the thin disks were raked out either by a tool or by the fingers of the human hand. A pipe, 22, leads out from the bottom of the boiler and serves to draw off the liquid solution that is employed in treating the cork.

It will be seen from the drawing that the shape of the boiler, and the receptacle, 15, within the boiler, and the relative size of each of these two is such that the receptacle

is mounted within and at about the center of the boiler; there is space below the receptacle for the liquid solution that treats the cork; the boiler wall is higher than the receptacle, 15, whereby the liquid solution will not be thrown over the boiler walls; and a space, 24, is around the receptacle and between the latter and the wall of the boiler; this surrounding space has sufficient width to allow a dipper-cup, not shown, to be moved up and down by the hand of the person attending the machine, so as to dip a cup full of the liquid solution and raise it up and pour same into the receptacle.

The operation of the machine may be briefly described as follows: The liquid solution is placed into the boiler or tank, 1, to the height indicated by the horizontal broken line, 23; the thin cork disks that are to be treated are placed within the perforated receptacle, 15, say about two-thirds full, or the quantity may be as the judgment of the operator prefers. By turning the valves, 14, that control the coiled pipes, hot-water or steam, as may be preferred, can be introduced into the coils, 11, and thereby the liquid solution in the tank may be heated to the desired temperature. The operator should use a cup or dipper having a long handle, and pass it down the space, 24, and dip the heated liquid solution from the bottom of the tank and pour it on top of the cork disks contained in the receptacle, 15; the cork disks should be thoroughly wet or saturated with the solution. When these conditions have been obtained of temperature and wetness of the corks which conditions are deemed favorable to produce the desired effect, revolution may be imparted to the shaft, 5, and the receptacle containing the corks. The centrifugal action thus set up will throw off and eliminate the solution. When this treatment has been continued for a short period of time, accord-

ing to the judgment of the operator, the revoluble motion of the shaft will then be stopped, and then the receptacle, 15, containing the hot cork disks may be lifted from the shaft and the said receptacle upset or turned over on a table or other suitable place thereby removing the said disks without injury to the latter. In some cases a further treatment of the corks with another hot solution is desirable; in such case the receptacle, 15, when lifted from the shaft and while containing the same cork disks still hot, may be placed on the shaft of a second machine standing near the first machine, and the further treatment may then proceed without the cork disks being emptied from the receptacle, 15.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

An apparatus for treating thin cork disks for bottle seals, comprising a stationary upright cylindric tank having a tube rising vertically from the bottom; a revoluble shaft standing vertically and extending up through said tube and the upper end of the shaft being square; coiled pipes within the tank for the circulation of heating fluid; and a perforated receptacle having an upright central sleeve that slips onto the squared upper end of the revoluble shaft and revolves therewith and occupies the center of said tank and leaving a space around the receptacle of width to allow a dipper-cup to be passed down and up to dip up a liquid solution from the bottom of the tank and pour it into the receptacle.

In testimony whereof I affix my signature in presence of two witnesses.

WESLEY W. MASON.

Witnesses:

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