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J. MATTSON.

MILK TEST BOTTLE RACK.

APPLICATION FILED JUNE 30, 1905.

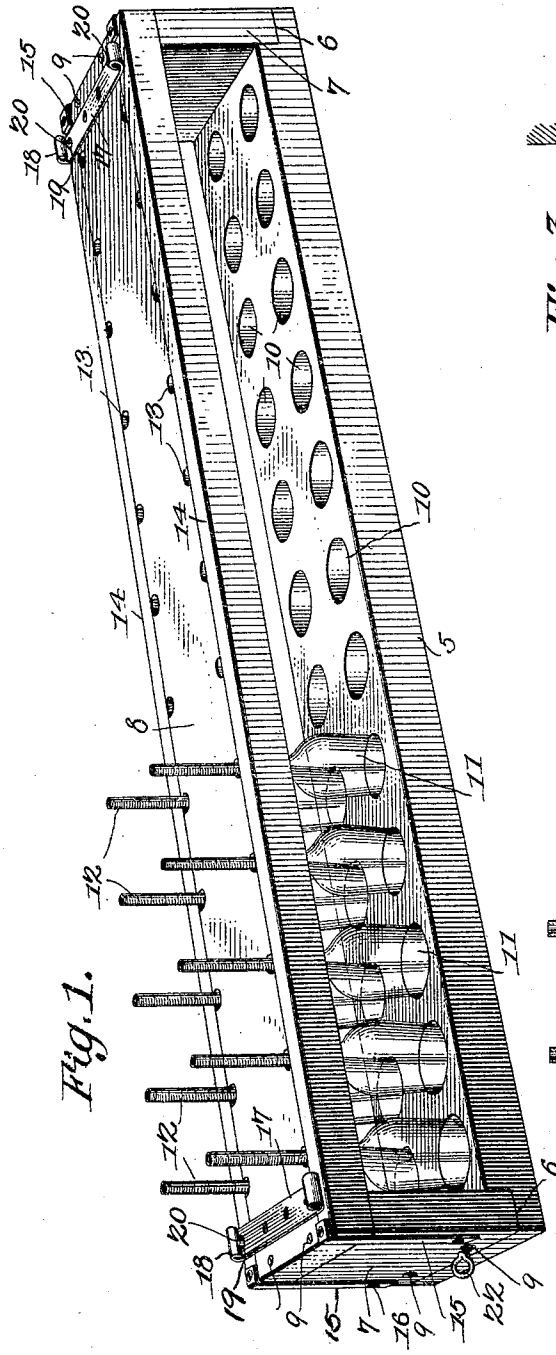


Fig. 1.

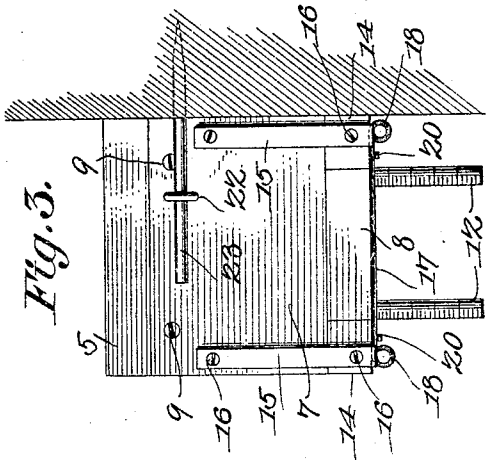


Fig. 3.

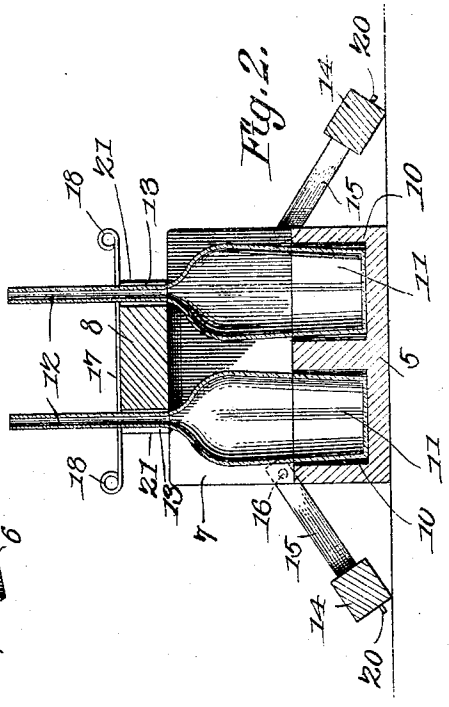


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN MATTSON, OF DRESSER JUNCTION, WISCONSIN.

MILK-TEST-BOTTLE RACK.

No. 806,819. Specification of Letters Patent. Patented Dec. 12, 1905.

Application filed June 30, 1905. Serial No. 267,767.

To all whom it may concern:

Be it known that I, JOHN MATTSON, a citizen of the United States, residing at Dresser Junction, in the county of Polk and State of Wisconsin, have invented a new and useful Milk-Test-Bottle Rack, of which the following is a specification.

This invention relates to an improved rack or holder particularly designed for handling the liquid-containing receptacles or test-bottles used in connection with the "Babcock" testing-machines for determining the quality of milk, cream, and similar dairy products.

The object of the invention is to provide a simple, inexpensive, and portable rack of this character by means of which a number of test-bottles may be conveniently supported while filling the latter and mixing the contents of the same preparatory to introducing said bottles into the testing-machine.

A further object of the invention is to provide a rack in which the bottles are so positioned that by inverting the rack the contents of the several bottles may be quickly removed and said bottles washed and subsequently supported in inverted position to drain.

A still further object is to provide a rack having oppositely-disposed pivoted locking-bars which engage the table or other support when in open position, and thereby prevent tilting movement of said rack.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportions, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a portable rack constructed in accordance with my invention, showing some of the test-bottles locked in position. Fig. 2 is a transverse sectional view showing the pivoted locking-bars open and the bottles in position to be detached from the rack. Fig. 3 is a side elevation of the rack, showing the same supported in inverted position on the wall to permit drainage.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The improved device consists of an elongated substantially rectangular open frame comprising a base-board 5, having its opposite ends rabbeted, as indicated at 6, for the reception of the end walls 7, the latter being secured to the base 5 and top or cover 8 in any suitable manner, as by screws or similar fastening devices 9. The base 5 is formed with a plurality of spaced recesses or pockets 10, adapted to receive the test-bottles 11, the latter being provided with elongated graduated necks 12, which pass through suitable recesses 13, formed in the opposite longitudinal edges of the top or cover 8 and disposed in vertical alinement with the pockets 10.

The test-bottles are secured within the rack by means of longitudinal locking-bars 14, the opposite ends of which are provided with angular arms 15, having their free ends pivoted to the end walls 7, as indicated at 16, so that said bars may be tilted laterally to open position when it is desired to remove the bottles from the rack. By having the bars 14 pivoted to the end walls in the manner described said bars when moved to open position will engage the table or other suitable support on each side of the base of the rack, as clearly shown in Fig. 2 of the drawings, thereby assisting in supporting the rack and preventing the latter from tipping over when loading or unloading the bottles. The bars 14 are locked in closed position by means of spring latch members 17, fastened to the top or cover at points adjacent the opposite ends thereof, said latch members having their terminal portions curved upwardly to form finger-pieces 18 and provided with apertures 19, adapted to receive laterally-extending locking lugs or pins 20, carried by said bars, as shown. It will thus be seen that when the bars 14 are swung upwardly to closed position the locking pins or lugs will engage the curved ends of the latch members and elevate the free ends thereof sufficiently to permit the bars 14 to engage the side edges of the top or cover, in which position the locking-pins will enter the apertures and lock said bars in closed position. In this connection it will also be noted that the top board or cover is of less width than the end walls, to thereby form shoulders 21,

adapted to engage the locking-bars and limit their inward movement, so as to prevent danger of breaking the graduated necks of the test-bottles.

Secured to the end walls 7 are eyes or loops 22 for hanging the rack in inverted position on suitable pins or nails 23 when draining the bottles, as clearly shown in Fig. 3 of the drawings.

In operation the bottles are placed in the rack and the side bars closed, after which the milk or cream and a certain proportion of sulfuric acid is poured in the bottles and the latter given a rotary motion, so as to thoroughly mix the liquids, by revolving the rack in the hand. The bottles are then removed and placed in the test-machine, after which they are again placed in the rack and the latter inverted to discharge the contents of said bottles. When the several bottles have been emptied, they may be conveniently washed while still in the rack by submerging the same in a suitable tank of water and afterward hanging the rack in inverted position on the wall to permit the contents of the bottles to drain. The bottles may be readily removed from the rack when desired by moving the locking-bars to open position and tilting the necks of said bottles until they clear the recesses in the top or cover, in which position they may be easily detached from the rack.

From the foregoing description it will be seen that there is provided an extremely simple and inexpensive device admirably adapted for the attainment of the ends in view.

Having thus described the invention, what is claimed is—

1. A device of the class described comprising a frame provided with a plurality of bottle-receiving compartments, and locking members pivoted to the frame for retaining the bottles in said compartments, said locking members being adapted when in open position to form lateral supports for the frame.

2. A device of the class described comprising a frame having its base provided with a plurality of bottle-receiving recesses and spaced from the top of the frame by end walls, said top being of less width than the base to form oppositely-disposed shoulders and having its longitudinal edges formed with spaced recesses disposed in vertical alinement with the recesses in the base, locking-bars pivoted to the end walls of the frame and adapted to engage the shoulders for retaining the bottles in said recesses, pins carried by the bars and spring latching members secured to the top of the frame and provided with apertures adapted to receive said pins.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN MATTSON.

Witnesses:

WILLIAM H. COREY,

WALFRED JOHNSON.