No. 781,839. PATENTED FEB. 7, 1905.

H. G. MILLER.

BOTTLE RECEPTACLE FOR BOTTLE WASHING MACHINES.

APPLICATION FILED SEPT. 5, 1903.

Fig. I.

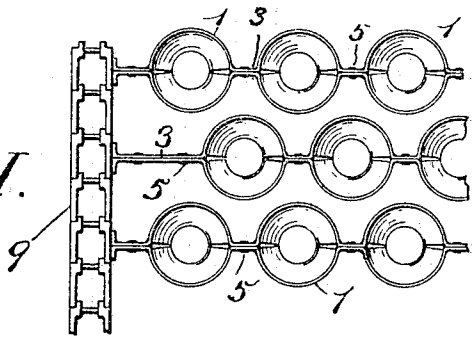


Fig. II.

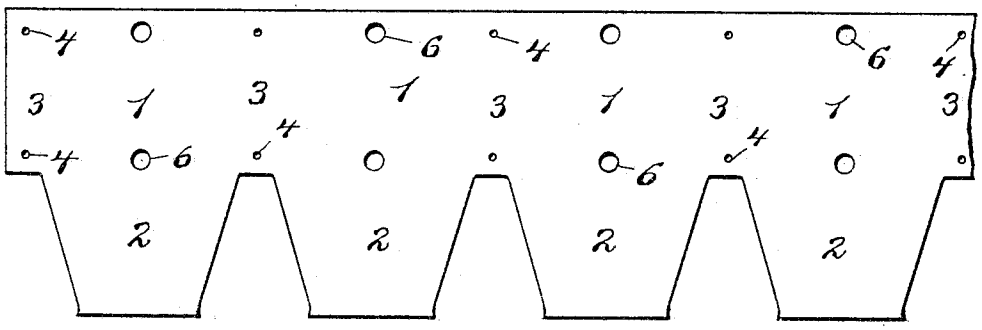


Fig. III.

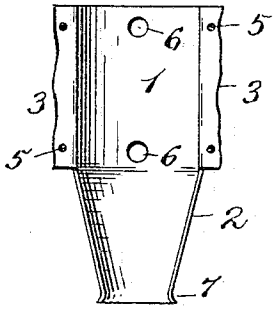
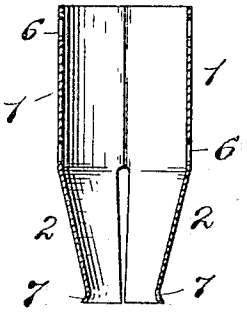


Fig. IV.



Witnesses:

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No. 781,839. Patented February 7, 1905.

UNITED STATES PATENT OFFICE.

HENRY G. MILLER, OF CLEVELAND, OHIO, ASSIGNOR TO THE LOEW SUPPLY AND MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF NEW JERSEY.

BOTTLE-RECEPTACLE FOR BOTTLE-WASHING MACHINES.

SPECIFICATION forming part of Letters Patent No. 781,839, dated February 7, 1905.

Application filed September 5, 1903. Serial No. 172,058.

To all whom it may concern:

Be it known that I, HENRY G. MILLER, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Bottle-Receptacles for Bottle-Washing Machines or Similar Machines, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention, such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings, Figure I represents a top plan view of a portion of the carrier of a bottle-washing machine provided with my improved baskets; Fig. II, a plan view of a sheet of metal cut to form a blank for said baskets; Fig. III, an inside view of a portion of said sheet stamped and shaped to form one-half of such basket, and Fig. IV an axial section of a basket.

The machine for which this basket is especially designed is a bottle-washing machine in which the bottles to be washed are placed in pockets or baskets supported in endless carriers and are conveyed by such carriers through soaking and rinsing tanks and finally delivered to be drained and again used. An illustration of such machine is found in United States Patent No. 690,563, to W. B. Cobb, bottle-washing machine, of January 7, 1902. The present form of pocket or basket may be employed in such machine with greater advantage as to convenience and economy of space than the form illustrated in said patent, but may be employed in any machine capable of using such receptacle or for any other purpose where a bottle or jar receptacle is desired.

For use in the machine a sheet of metal is cut to form a series of body portions 1 and outwardly-tapering neck portions 2 of such shape as to enable them to be pressed or stamped into shape to hold the bottles when two of such sheets are placed together facing each other and suitably joined. The body portions are joined together by flange portions 3, having rivet-holes 4, through which rivets 5 are driven when the shaped sheets are opposed to form the pockets. Holes 6 are formed in the bulged or cylindrical sides of the body portions to allow the washing and rinsing liquid ingress and egress to and from the pockets. When the neck portions are shaped, they are downwardly-tapering or truncate conical, so as to form gradually-narrowing sides for the shoulders of the bottles to bear against, so that the varying shapes and sizes of bottles may be accommodated. The open lower ends of the pockets are flared and rounded at 7, so as to offer no resistance to the passage in either direction of the enlarged mouths of the bottles, as might occur if the lower ends of the pockets had plain edges without the flare and rounding, the open ends of the pockets being of sufficient size to permit the free passage of the bottle-mouths and being larger than the latter. As the tapering neck portions of each pocket are not secured together like the body portions, but are free and separated by the slits 8 between their edges, said necks have a certain amount of spring or yield which will admit of the bottles being dropped into the pockets without breaking from the impact of the glass bottle against a rigid metal support. The bottles will be supported in the pockets by their shoulders resting upon the converging sides of the necks of the pockets, so that there will be no end strain in dropping the bottles into the pockets or while they are held therein, as in pockets or baskets having closed ends. By this mode of support the bottles are also prevented from laterally rattling or shaking around in the pockets or baskets as the carrier travels along in the machine, so that there will be no breakage from that cause.

The ends of the bottle-racks formed by the

pockets or receptacles are secured to endless chains 9, and the fact that each bottle-rack consists of bulged pockets connected by narrow webs enables the bottle-racks to be secured and arranged very close together in the carrier, the pockets of one rack fitting into the spaces between the pockets of the adjoining racks, so that the pockets are arranged staggering.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construction set forth, respectively, in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. A bottle-receptacle formed with a cylindrical body portion and a downwardly-tapering, longitudinally-slitted and open-ended neck portion.

2. A bottle-receptacle formed with a cylindrical body portion and a downwardly-tapering neck portion having a rounded and flared mouth.

3. A bottle-receptacle formed with a cylindrical body portion and a downwardly-tapering and longitudinally-slitted neck portion.

4. A bottle-receptacle formed with a cylindrical body portion and a downwardly-tapering and longitudinally-slitted neck portion having a rounded and flared mouth.

5. A bottle-receptacle having a downwardly-tapering and laterally-yielding neck portion extending substantially around the entire circumference and formed with an open end permitting absolutely unobstructed passage in both directions of the enlarged mouth of the bottle.

6. A bottle-receptacle formed from two pieces of metal having each a body portion forming one-half of a cylinder having lateral flanges and a downwardly-tapering neck portion and having said lateral flanges secured together.

7. A bottle-receptacle formed from two pieces of metal having each a body portion forming one-half of a cylinder having lateral flanges and a downwardly-tapering neck portion having a rounded and flared mouth portion and having said lateral flanges secured together.

8. A bottle-receptacle formed from two pieces of metal formed with semicylindrical body portions united by lateral flanges and downwardly-tapering neck portions, and rivets through the lateral flanges and securing the two pieces together.

9. In a bottle-carrier for a bottle-washing machine, the combination with a conveyer, of a series of bottle-racks in said conveyer and composed of bottle-pockets and connecting-webs between the same, the pockets of one rack projecting into the interstices between the pockets of the adjoining racks, staggering the pockets in the conveyer.

10. In a bottle-carrier for bottle-washing machines, the combination with a flexible conveyer, of bottle-pockets supported in the conveyer and arranged so as to have the pockets project into the interstices between the adjoining pockets so as to be in staggered arrangement.

11. In a bottle-carrier for bottle-washing machines, the combination with chains, of pairs of metal sheets secured together and forming bottle-pockets between their facing sides and having their ends secured to the links of the chains.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 3d day of August, A. D. 1903.

HENRY G. MILLER.

Witnesses:
WM. SECHER,
C. E. JOHNSON, Jr.