No. 708,173. Patented Sept. 2, 1902.

R. SCHMIDT.

ADJUSTABLE BOTTLE REST.

(Application filed Mar. 20, 1902.)

(No Model.)

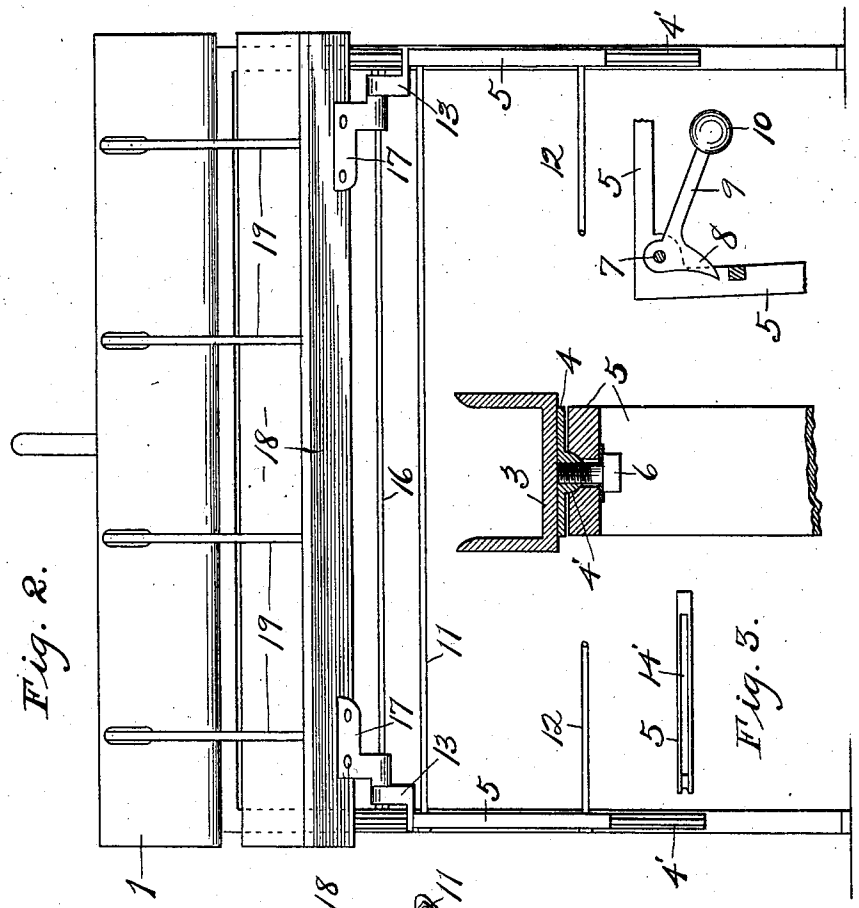


Fig. 2.

Fig. 5.

Fig. 4.

Fig. 3.

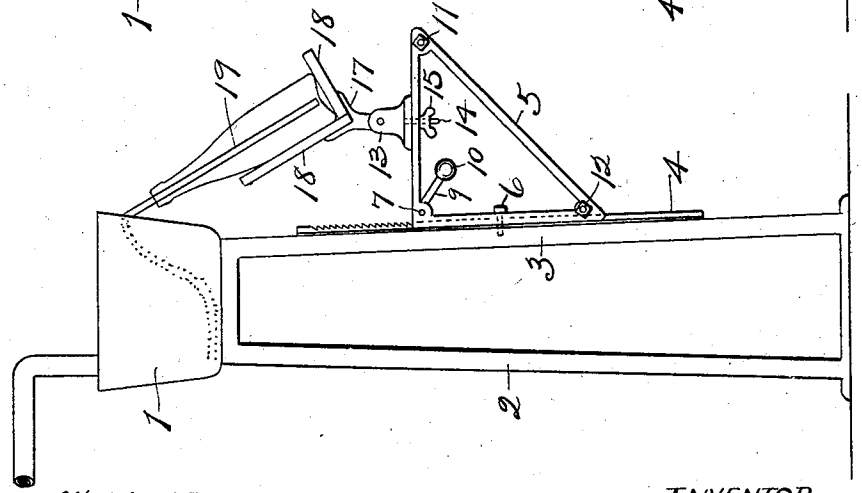


Fig. 1.

WITNESSES:

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UNITED STATES PATENT OFFICE.

RUDOLPH SCHMIDT, OF KANSAS CITY, MISSOURI.

ADJUSTABLE BOTTLE-REST.

SPECIFICATION forming part of Letters Patent No. 708,173, dated September 2, 1902.

Application filed March 20, 1902. Serial No. 99,154. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH SCHMIDT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Adjustable Bottle-Rests, of which the following is a specification.

My invention relates to an adjustable bottle-rest for bottling apparatus; and the objects of my invention are to enable the bottles to be filled more rapidly, to avoid breakage of bottles during the filling operation, and to provide means for adjusting bottles of all sizes to the filling-tubes, so that the ends of the filling-tubes will be close to the bottoms of the bottles, the advantages of which position are well known in the art.

In most bottling apparatus the bottles are supported by a neck-plate, having recesses into which the necks of the bottles are inserted. The weight of the bottle is thus borne by its neck, which sometimes breaks, and the neck often has to be turned and adjusted in the neck-plate on account of the stopper-wires which are secured on the necks of many bottles. Such adjustment involves a loss of time, which my invention will obviate.

Referring to the accompanying drawings, Figure 1 is an end elevation of my invention attached to the legs of a filling-tank. Fig. 2 is a front elevation of the same. Fig. 3 is a top plan view of one of the brackets detached. Fig. 4 is an enlarged horizontal section through one of the legs and a portion of the bracket. Fig. 5 is an enlarged view of one of the pawls, the bracket being broken away to expose the same.

1 designates a filling-tank supported by hind legs 2 and front legs 3. Secured by screws to the front of each leg 3 is a ratchet 4, having a longitudinal rib 4′ thereon containing the ratchet-teeth. Said teeth may be either cut or cast, as preferred.

Mounted on each ratchet 4 is a bracket 5, in the base of which is a groove which fits around the rib 4′. The inner faces of said grooves are smooth, so that the brackets 5 are slidable up and down along the ribs 4′. Each bracket is held against its ratchet 4 by a cap-screw 6, which extends through a slot cut through the base of the bracket and communicating with said groove. The purpose of said slot is to permit vertical adjustment of the bracket 5. In order to permit said adjustment, the cap-screws 6 are not turned up tightly against the brackets 5.

In the upper inner corner of each bracket 5 is a transverse pin 7, on which is pivoted a depending pawl 8, having an outwardly-extending arm 9, on which is a weight 10. The action of the weights 10 is to hold the pawls 8 against the toothed ribs 4′, said pawls being in the upper ends of the aforesaid slots. Thus the weight of the brackets 5 is supported by ribs 4 through pawls 8. The brackets 5 are connected by rods 11 and 12. In the top of each bracket 5 is a longitudinal slot 14′. Mounted on top of each bracket 5 is a bearing 13, having a stud-bolt 14, depending through slot 14′. On each bolt 14 is a wing-nut 15 for clamping its bearing 13 in any position along the slot 14′. Bearings 13 are connected by a rod 16, having threaded ends and a nut on each end thereof. Embracing rod 16 and touching the respective bearings 13 are two castings 17, which support an angular bottle-rest 18 18. The angle at which the rest 18 18 is inclined may be changed by rocking the rest upon the rod 16. The nuts on the ends of said rod may be tightened to bind the bearings 13 against the castings 17, and thereby hold the rest 18 18 firmly in position.

19, &c., designate the siphons or filling-tubes, which depend through slots in the tank 1.

The operation is as follows: The bottles to be filled are run up over the filling-tubes 19 and dropped upon the rest 18 18. If the lower ends of the tubes 19 are not close enough to the bottoms of the bottles, the brackets 5 are raised, (the pawls 8 slipping over the ratchet-teeth.) The brackets 5 may be quickly lowered by raising the weights 10 and permitting the brackets to descend by gravity. When the weights are released, the brackets will be supported in position. The rest 18 18 may be adjusted forward and backward by loosening the wing-nuts 15 and sliding the bearings 13 upon the brackets 5.

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

1. The combination with the front legs of a filling-tank, of a pair of ratchets secured to said legs respectively, a bracket mounted slidably on each of said ratches, a pawl secured to each bracket in position to engage the adjacent ratch, means for holding the pawls yieldingly against the ratches, a bearing mounted slidably on the top of each bracket, a rod connecting said bearings, and an angular bottle-rest supported indirectly by said rod; substantially as described.

2. The combination, with the front legs of a filling-tank, of a pair of ratchets secured to said legs respectively, a bracket mounted slidably on each of said ratches, the base of each bracket having a vertical slot therein, a cap-screw passing through each of said slots and entering one of said ratches, a pawl secured to each bracket in position to engage the adjacent ratch, means for holding said pawls yieldingly against the ratches, a bearing mounted slidably on the top of each bracket, a rod connecting said bearings, and an angular bottle-rest supported indirectly by said rod; substantially as described.

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

RUDOLPH SCHMIDT.

Witnesses:
O. M. VAN DORSTON,
K. M. IMBODEN.