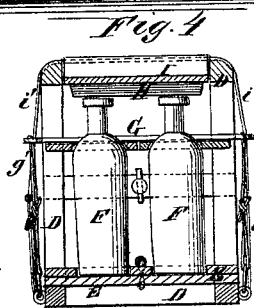
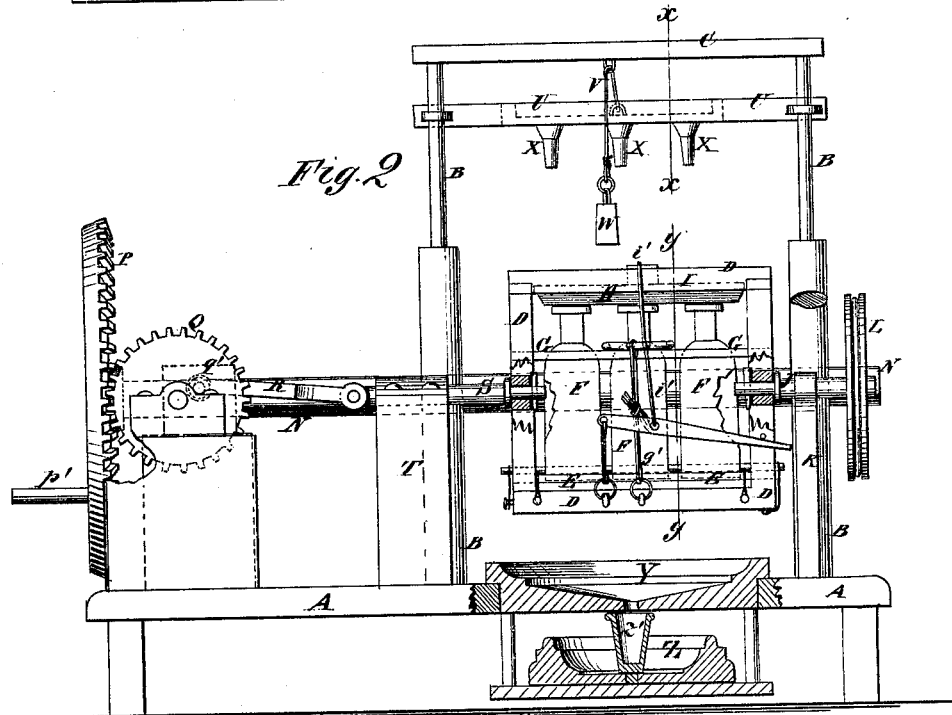
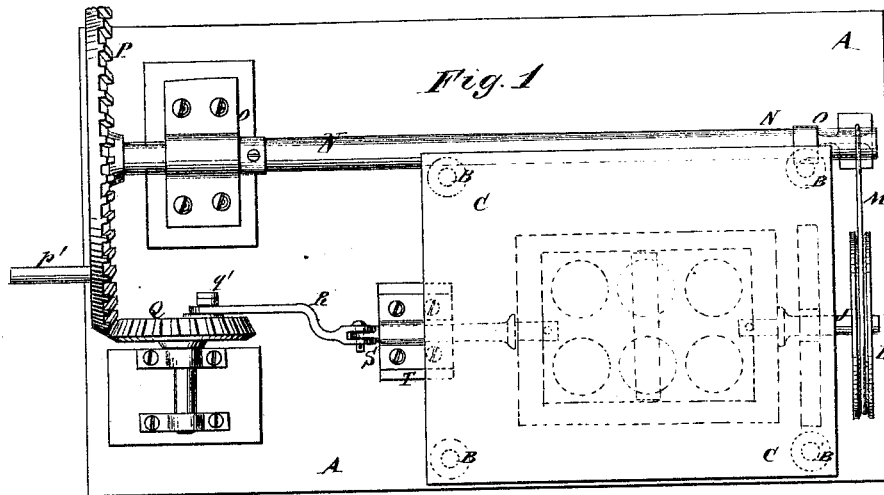


W. SCHERENBERG.

BOTTLE-WASHER.

No. 180,937.

Patented Aug. 8, 1876.



WITNESSES:

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INVENTOR:

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# UNITED STATES PATENT OFFICE.

WILLIAM SCHERENBERG, OF NEW YORK, N. Y.

## IMPROVEMENT IN BOTTLE-WASHERS.

Specification forming part of Letters Patent No. **180,937**, dated August 8, 1876; application filed May 27, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM SCHERENBERG, of the city, county, and State of New York, have invented a new and useful Improvement in Bottle-Washer, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is a side view of the same, parts being broken away, and partly in section, to show the construction. Fig. 3 is a detail section taken through the line *x x*, Fig. 2. Fig. 4 is a detail section, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine, simple in construction, inexpensive in manufacture, convenient in use, and effective in operation, washing the bottles very quickly and thoroughly.

The invention consists in the frame, provided with the detachable holding-plate, and the plate and its pad or stoppers, in combination with the shafts, the wheel and band, the gear-wheels, and the connecting-rod; or with an equivalent gearing to give a rotary and an oscillating motion to the frame that holds the bottles; in the combination, with the trough or box, the funnels, the cords, and the weights, with the frame that holds the bottles; and in the combination of the basins and the cup with the platform, and the frame that holds the bottles, as hereinafter fully described.

A is the platform or table of the machine, to which are attached four posts, B, connected at their upper ends by a plate or frame, C. D is a frame, in one side of which is secured a false bottom, E, having holes or recesses formed in it to receive the bottoms of the bottles F. The bottles F are secured in place by a board, G, having holes formed in it to receive the necks of the said bottles, and which is secured in place by cords *g'*, or other suitable fastenings. The mouths of the bottles F are closed by a pad, H, attached to a plate, I, which is secured in the top of the frame D by cords *i'*, or other suitable fastenings. Instead of the pad H, stoppers may be attached to the plate I, in such positions as to enter and close the mouths of the bottles F, when the said plate I is secured in place. To one end of the frame

D is rigidly and detachably attached the end of a short shaft, J, which revolves in bearings in a post, K, attached to the platform A. To the outer end of the shaft J is attached a band-wheel, L, around which passes a band, M, that also passes around a shaft, N. The shaft N revolves in bearings in posts O, attached to the platform A. To the other end of the shaft N is attached a large bevel-gear wheel, P, which is provided with a crank-pin, *p'*, by which the shaft N is revolved, to revolve the frame D and the bottles contained in it.

The teeth of the gear-wheel P mesh into the small bevel-gear wheel Q, pivoted to a post attached to the platform A. To the wheel Q is attached a crank-pin, *q'*, to which is pivoted the end of a connecting-rod, R, the other end of which is pivoted to a rod, S, which slides in a bearing attached to a post, T, attached to the platform A. To the other end of the rod S is pivoted the end of the frame D. By this construction, by turning the crank-wheel P the frame D will be revolved and at the same time oscillated, so as to thoroughly agitate the bottles.

U is a shallow trough or box, which slides up and down upon the posts B, and in its bottom are secured as many funnels, X, as there are bottles in the frame D. To the center of the box U are attached the ends of two cords, V, which pass over pulleys or staples attached to the plate or frame, and to their ends are attached weights W, to balance the box U.

In using the machine, the bottles F are placed in the frame D, and are secured by the plate G. The trough U is then lowered, bringing the funnels X into the mouths of the bottles F. Water and shot, tacks, or other suitable substance, are poured into said bottles. The trough U is then raised, and the plate I and its pad or stoppers are secured in place upon the frame D and bottles F. The wheel P is then turned, which revolves, and at the same time shakes the frame D and bottles F, washing the said bottles clean in a very short time. When the bottles are sufficiently washed, the plate I and pad or stoppers H are removed, and the frame D is turned through a half-revolution, which allows the water and shot or tacks to flow from the bottles F into the basin Y, secured to the platform A, and through

a hole in the bottom of which the water and shot or tacks flow into a small vessel or cup, *z'*, placed in a larger basin, *Z*, placed below the platform *A*. The shot or tacks are received and held in the cup *z'*, ready to be used again, and the water flows over the edge of said cup into the basin *Z*, whence it may be allowed to flow into any suitable receiver. The bottles are then rinsed with clean water, in the same way as they were washed. The frame *D* is then detached from the machine and replaced with another filled with dirty bottles, each frame being emptied of clean bottles and filled with dirty bottles while the bottles in another frame are being washed.

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

1. The frame *D*, provided with the detachable holding-plate *G*, and the plate *I* and pad

or stoppers *H*, in combination with the shafts *J S N*, the wheel and band *L M*, the gear-wheels *P Q*, and the connecting-rod *R*, or equivalent gearing, to give a rotary and an oscillating motion to the frame *D* at the same time, substantially as herein shown and described.

2. The combination of the trough or box *U*, the funnels *X*, the cords *V*, and the weights *W*, with the frame *D* that holds the bottles, substantially as herein shown and described.

3. The combination of the basins *Y Z*, and the cup *z'*, with the platform *A*, and the frame *D* that holds the bottles, substantially as herein shown and described.

WILLIAM SCHERENBERG.

Witnesses:

JAMES T. GRAHAM,  
T. B. MOSHER.