(No Model.)

C. G. WILTSE.

MACHINE FOR BOTTLING POWDERS.

No. 283,313. Patented Aug. 14, 1883.

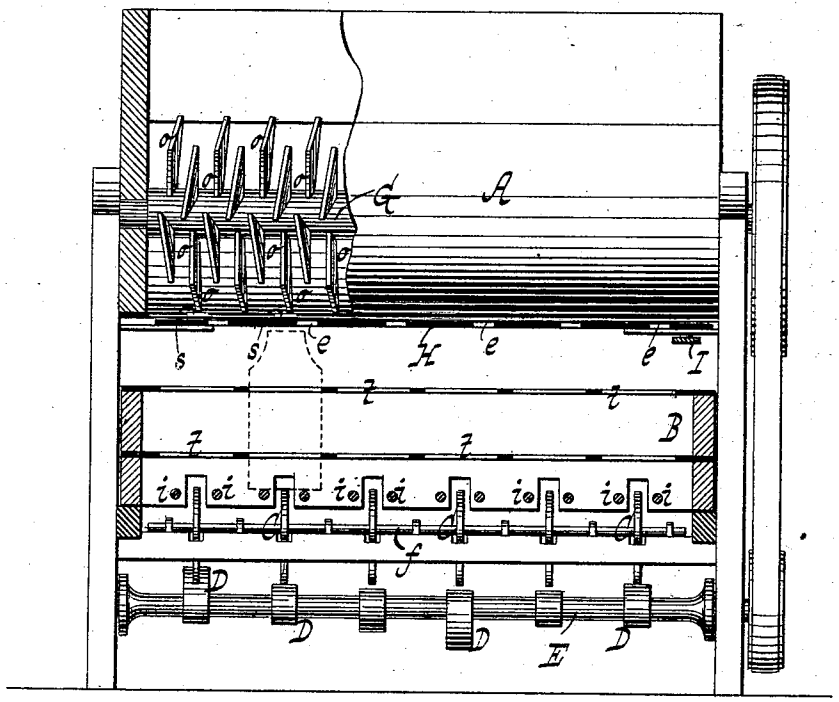


Fig. 3.

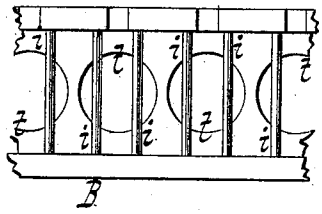


Fig. 2.

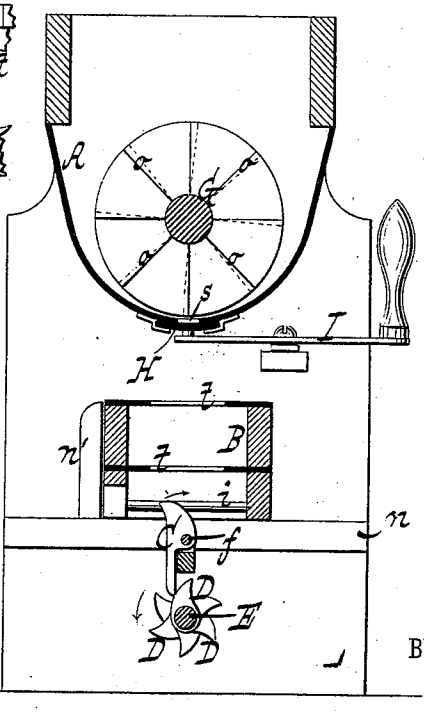
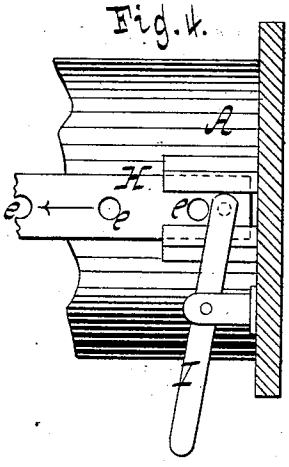


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES G. WILTSE, OF NEW YORK, N. Y.

MACHINE FOR BOTTLING POWDERS.

SPECIFICATION forming part of Letters Patent No. 283,313, dated August 14, 1883.

Application filed January 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. WILTSE, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Machines for Bottling Powders, of which the following is a specification.

The object of this invention is to produce a machine for filling bottles with powder, for cooking or other purposes; and it consists in the novel construction and arrangement of parts hereinafter described, whereby, among other things, a shaking motion is imparted to the bottle or bottles as the powder is deposited therein, so that the powder is compacted in the required manner.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a vertical longitudinal section. Fig. 2 is a vertical cross-section. Fig. 3 is an inverted plan view of a portion of the bottle-holder. Fig. 4 is a similar view of the feed-hopper, showing the valve-operating lever.

Similar letters indicate corresponding parts.

The letter A designates a hopper, the bottom of which is provided with holes *s*, (one or more,) for feeding the powder that may be put in it to the bottles. At the proper distance beneath the hopper is a holder, B, for receiving the bottles to be filled, and next beneath this holder are tappets C, which are adapted to act on the bottles contained in the holder, while next below the tappets are revolving cams D, serving to impart thereto the required motion, the cams being fixed to a shaft, E.

In the hopper A is arranged a revolving agitator, G, consisting of a shaft carrying oblique vanes *o*, which are arranged in longitudinal rows, with those of one-half of the series of rows extending in an opposite direction to those of the remainder as to their oblique angles, so that these vanes have a tendency to move or propel the powder contained in the hopper in opposite directions lengthwise thereof, causing it to pass and repass the discharge-holes *s*, and thus to be uniformly distributed. On the bottom of the hopper is arranged a sliding valve, H, which is common to the series of discharge-holes *s*, it being provided with holes *e*, adapted to register with the discharge-holes, and to this valve is connected a lever, I, for adjusting the same to its open or closed position.

The bottle-holder B consists of a frame or box having holes *t*, for the introduction and guidance of the bottles, and having parallel bars *i*, which serve to support the bottles, and between which the tappets C are arranged to work. Said tappets are hung to a common shaft, *f*, in a proper manner to be acted on by the cams D, and the tappet-shaft is parallel to the cam-shaft, while both shafts are in the longitudinal plane of the hopper.

When the machine is applied to use, the bottles are placed on their supports *i* in the holder, the valve H is set to open the discharge-orifices *s*, and a revolving motion is imparted to the cam-shaft E and agitator G. In this manner the powder is deposited into the bottles from the hopper, while at the same time the bottles are shaken, due to the action of the tappets C, and it follows that the powder is compacted in the bottles, so that when filled and removed from the machine they are ready to be stoppered. The cams D are arranged in the proper manner to act on the tappets successively, from one to the other end of the machine, so that the series of bottles are shaken one after the other. The bottle-holder B rests on ledges *n* of the machine-frame, and may be slid outward thereon to permit the introduction of the bottles, the inner or normal position of the holder being determined by a stop, *n'*, against which it abuts.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the hopper having a series of holes arranged in a longitudinal row in its bottom, a holder constructed to receive a series of bottles which are capable of being simultaneously filled from the hopper, and devices for imparting a shaking motion to all the bottles simultaneously, substantially as described.

2. The combination of the stationary hopper, an agitator arranged therein, a bottle-holder arranged to stand in a stationary position while in use, and mechanism acting directly on the bottles to shake them in the stationary bottle-holder, substantially as described.

3. The combination of the hopper, the horizontal revolving agitator arranged therein, and

composed of vanes extending obliquely in opposite directions, a bottle-holder arranged to stand in a stationary position while in use, and mechanism acting on the bottles to shake them in the stationary bottle-holder, substantially as described.

4. The combination of the hopper and the bottle-holding frame having a series of holes, *i*, arranged in a longitudinal row, and having parallel cross-bars *i*, for supporting the series of bottles, with a series of tappets arranged to operate between the parallel bars to impart a shaking motion to all the bottles simultaneously, substantially as described.

5. The combination, substantially as hereinbefore set forth, of the bottle-holder composed of the frame having the holes and parallel bars, the tappets working between said bars, the revolving cams for imparting motion to said tappets, and the hopper.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHAS. G. WILTSE. [L. S.]

Witnesses:
E. F. KASTENHUBER,
WILLIAM MILLER.

Correction in Letters Patent No. 283,313.

It is hereby certified that in Letters Patent No. 283,313, granted to Charles G. Wiltse, of New York, New York, for an improvement in "Machines for Bottling Powders," the following error appears in the printed specification forming a part thereof, viz: The word "simultaneously," in line 94, page 1, and in lines 13 and 14, page 2, should read *successively;* and that the proper corrections have been made in the records pertaining to the case in the Patent Office, and should be read in said Letters Patent to make the same conform therewith.

Signed, countersigned, and sealed this 21st day of August, A. D. 1883.

[SEAL.]

M. L. JOSLYN,
Acting Secretary of the Interior.

Countersigned:

E M MARBLE,
Commissioner of Patents.