

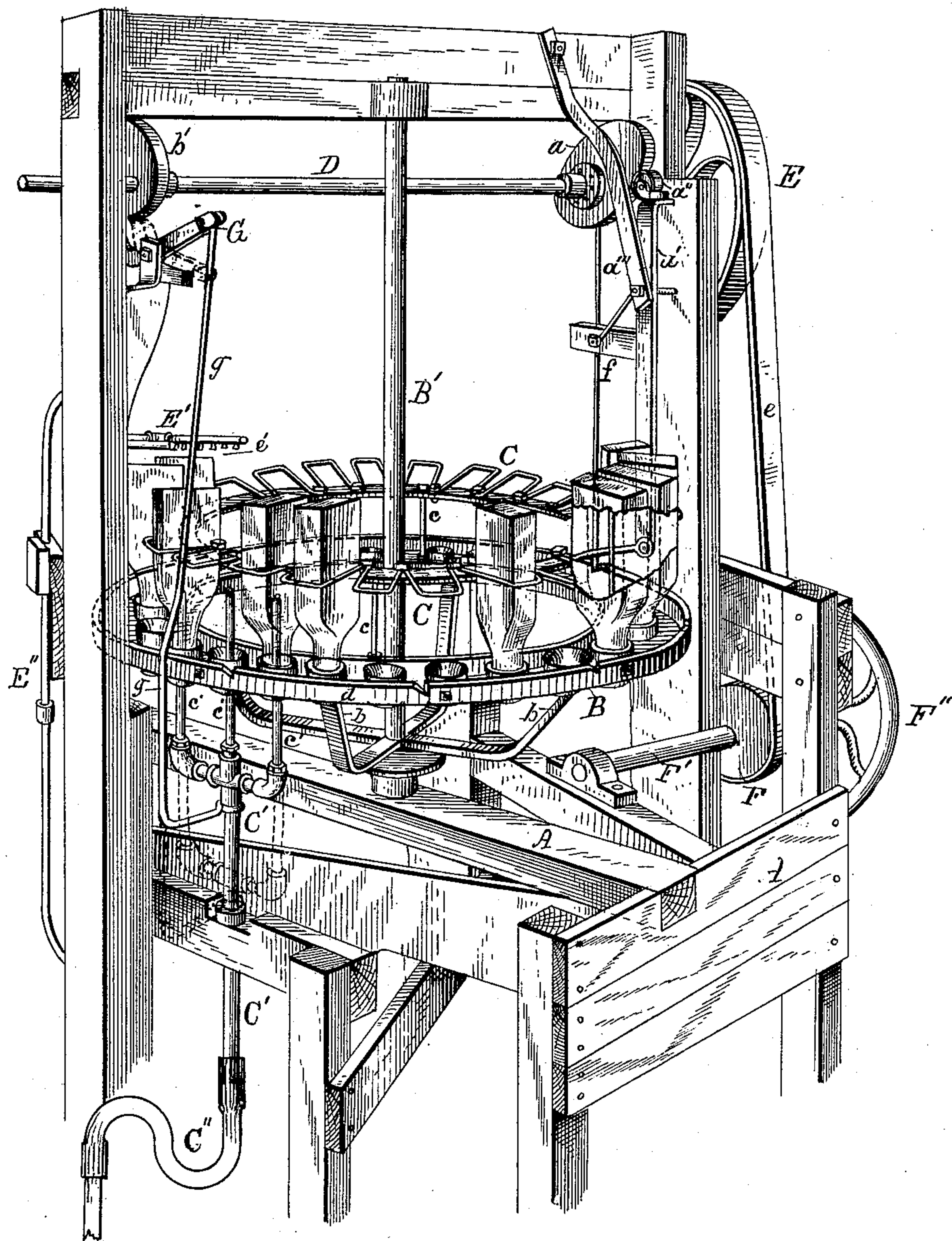
(No Model.)

G. E. WALLACE.

APPARATUS OR MACHINE FOR CLEANING BOTTLES.

No. 482,110.

Patented Sept. 6, 1892.



WITNESSES

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GEORGE E. WALLACE, OF BELFAST, MAINE.

APPARATUS OR MACHINE FOR CLEANING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 482,110, dated September 6, 1892.

Application filed April 11, 1892. Serial No. 428,645. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. WALLACE, a citizen of the United States, residing at Belfast, in the county of Waldo and State of Maine, have invented certain new and useful Improvements in an Apparatus or Machine for Cleaning Bottles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which forms a part of this specification.

This invention relates to improvements in an apparatus for cleansing bottles, which will be hereinafter more particularly described and pointed out.

In the accompanying drawing, forming part of this specification, the figure is a perspective view of the apparatus.

A is a suitable frame, either of wood or metal, on which the machinery is secured.

B is a horizontal wheel on a vertical shaft B', which is journaled at the top of the frame A and stepped at the bottom on a cross-beam of frame A. The arms *b b*, which are attached to the vertical shaft B', support the rim *d* of the wheel B. At a convenient distance above the rim *d* is another rim having a wire rack C, with openings for the bodies of the bottles, which openings may be round or rectangular to suit the shape of the bottles. This rim and rack are supported in any suitable manner on the wheel by standards *c c c c* or otherwise, as may be found convenient.

D is a horizontal shaft at the top of the frame A, suitably journaled therein. At one end of said shaft, outside of frame A, is a band-wheel E', having a band *e*, connecting it with a pulley-wheel F on the short shaft F', supported in frame A. On the outer end of shaft F' is a crank-wheel F''. At the same end of shaft D where is wheel E is a cam-wheel *a* on the inside of frame A.

a' is a lever having a friction-roller *a''* at its upper end, which impinges on the periphery of cam *a*. Lever *a'* is pivoted to a frame *a'''*. The lower end of lever *a'* has a pawl,

which operates the rack-teeth on the upper side of the rim *d* whenever the cam *a* forces the end with the roller *a''* outwardly. The usual retaining spring-pawl is placed under the rim to prevent a backward movement, which is not shown in the drawing.

At the other end of shaft D is a cam *b'*, which in its revolutions operates the end of a lever G. At the outer end of lever G is a rod *g*, which sustains the water-pipe C', and as cam *b'* revolves and moves lever G the rod *g* correspondingly elevates or lowers the water-pipe C', which is connected by a flexible tube C'' to the water-main.

E' is a branch water-pipe supplied from pipe E''.

E' has six or more downward jets *e'*.

A vertical rod *f* is connected with and moved by the cam *a* and serves to throw the spring-catch from the rim *d* until the time comes for it to catch again.

There is no limit as to the size or the materials to be used in the construction of the frame. A very large wheel can be made for a large number of bottles of large size and a small wheel for vials.

The present drawing represents a wheel to accommodate sixteen bottles, and three bottles are washed at a time, as follows: As the wheel is turned the cam *a* operates the lever *a'* and the wheel B is moved to bring three bottles immediately over the three branch tubes *c'*, which tubes are then elevated by the movement of the cam *b'*, operating on lever G and rod *g*. The water is injected into the three bottles, and then the tubes *c'* drop out of the way, the wheel B moves forward, and during that movement the water from the tubes *c'* is thrown outside of the three bottles and between the other three being moved into their places. At the same time the outsides of all of these bottles are sprinkled by the water from the jets *e'* in tube E'. A wet sponge (not shown in the drawing) may be so placed above the bottles that they will impinge on it, and thus be more thoroughly cleansed. It is obvious that more than three branch tubes *c'* can be used, when the other parts of the machine must be changed correspondingly. By

the present machine now in operation ten thousand bottles can be cleansed in ten hours' work.

I claim—

- 5 The combination of the supporting-wheel B and shaft B', the shaft D, having on it the two cams *a* and *b'*, the band-wheel E, band *e*, pulley-wheel F, and driving crank-wheel F'', the

pawl-lever *a'*, check-rod *f*, lever G, connecting-rod *g*, and water-pipe C', and branch jets *c'*. 10

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

GEORGE E. WALLACE.

Witnesses:

RENSSELEAR LEATHER,
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