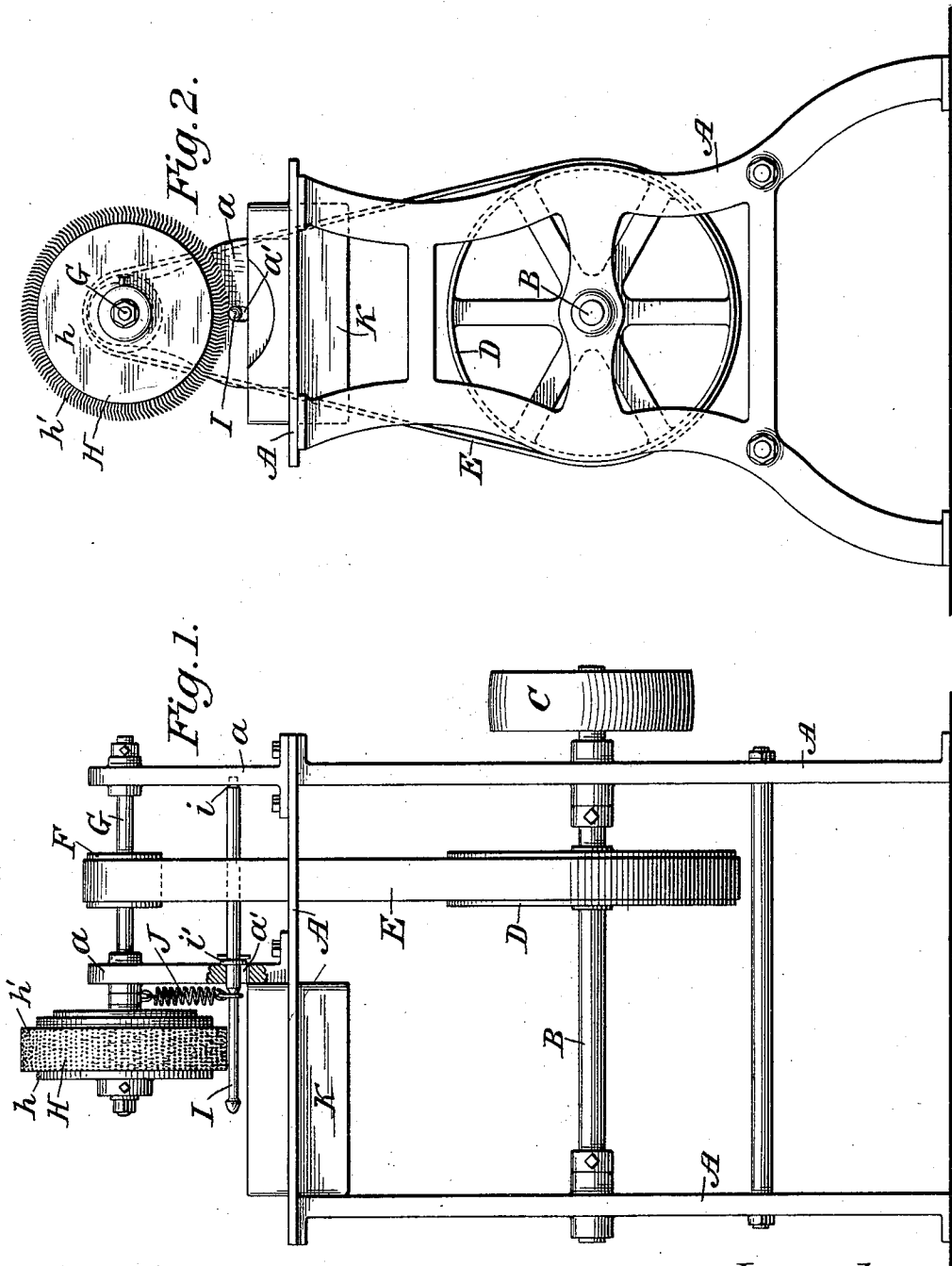


(No Model)

M. E. DONALLY.
BOTTLE CLEANING MACHINE.

No. 583,283.

Patented May 25, 1897.



Attest:

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UNITED STATES PATENT OFFICE.

MELVIN E. DONALLY, OF BROOKLYN, NEW YORK.

BOTTLE-CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 583,283, dated May 25, 1897.

Application filed November 17, 1896. Serial No. 612,426. (No model.)

To all whom it may concern:

Be it known that I, MELVIN E. DONALLY, a citizen of the Dominion of Canada, residing in the city of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Bottle-Cleaning Machines, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

It is well known in the art to which this invention relates that it is extremely difficult to remove from bottles the tin-foil which is applied to the necks thereof, as in the case of beer and ale bottles, the tin-foil not only being made to adhere very closely to the glass, but being sufficiently waterproof to resist the penetration of moisture through it in such a degree as to soften the gum by which it is made to adhere to the bottle. Various devices have been proposed hitherto for the purpose of removing such tin-foil rapidly, but, so far as I am aware, such devices are not so successful in operation as to warrant their general use, and resort is commonly had to the scraping of each bottle by hand, which is a slow and comparatively expensive operation. I have therefore sought to produce a machine which shall not only be simple in construction, but shall be capable of rapidly and thoroughly removing the tin-foil from the necks of bottles.

The machine in which my invention is embodied is fully described hereinafter with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of such a machine, and Fig. 2 is an end elevation thereof.

The machine represented in the drawings comprises a suitable supporting frame or table A, in the lower portion of which is journaled a counter-shaft B, the latter having a main driving pulley or gear C and a second and preferably larger pulley or gear D. A belt E, passing over the pulley D, and a small pulley F on the shaft G, which is mounted in suitable bearings on the table or frame A, afford a convenient means of driving said shaft G rapidly, so that the brush H, which is carried by said shaft G, shall have a high peripheral speed. The brush H is represented as having a disk-like body *h*, to the periphery of which is secured the brush *h'*. The latter

may be made of any suitable materials, but I have found that the best results are obtained with wire card-clothing, the wires being very hard and having a keen or bend by reason of which the attrition of the ends of the wires against the bottle-necks keeps such ends constantly sharp and in condition to attack the tin-foil quickly. Adjacent to the brush H is supported a movable holder I, which is adapted to receive each bottle and to present it to the brush. I prefer to employ for this purpose a spindle which is pivoted, as at *i*, in one of the standards *a*, which support the shaft G, and passes freely through a slot *a'* in the other of said standards, being held in place by a pin and washer, as represented at *i'*. A weight or spring J is connected to the spindle I in such a manner as to cause the latter to move normally toward the brush, the upper end of said slot *a'* serving as a stop to limit the movement of the spindle toward the brush, so that the bottle, which has been slipped upon the spindle, shall be presented properly to the brush and shall be held at the right distance from the body of the brush to give the wires of the brush the most effective action. A receptacle K may be supported in a suitable position to receive the tin-foil as it falls from the brush.

The mode of operation of my machine will be readily understood without further explanation. It will also be obvious that the form and disposition of the brush and the gearing for driving the same may be varied without departing from the spirit of my invention.

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

In a machine for cleaning bottles, the combination of a supporting-frame, a brush, means to rotate the same with a high peripheral speed, a spindle parallel with the axis of the brush and adapted to receive a bottle, said spindle being pivoted in the frame, and a spring holding said spindle normally toward said brush, substantially as shown and described.

This specification signed and witnessed this 9th day of November, A. D. 1896.

MELVIN E. DONALLY.

In presence of—

W. B. GREELEY,
A. N. JESBERA.