E. COURT.

CAP SCRUBBING ELEMENT FOR CROWN CORKING MACHINES.

APPLICATION FILED DEC. 27, 1915.

1,190,384. Patented July 11, 1916.

Fig. 1.

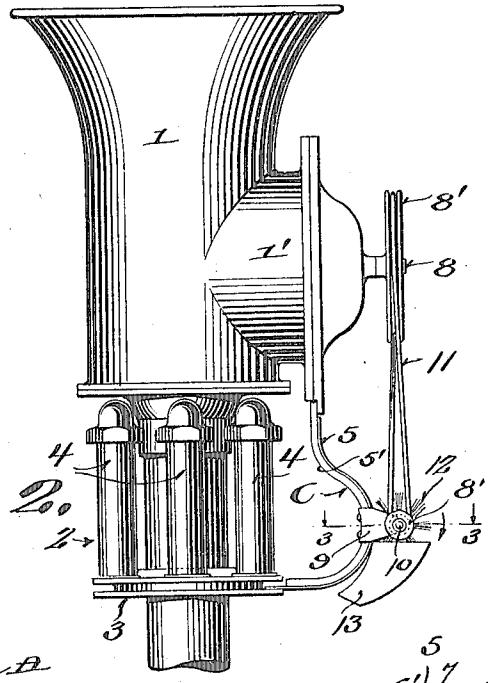


Fig. 2.

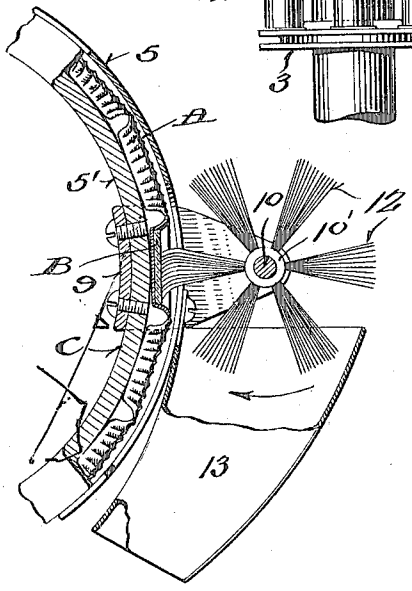
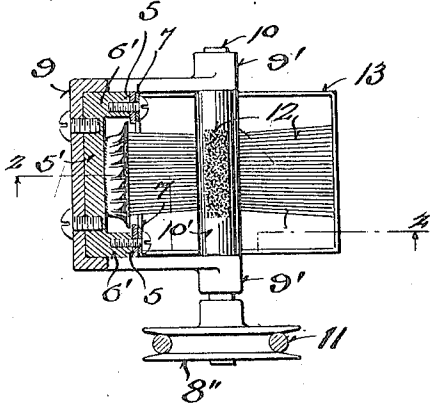


Fig. 3.



Witnesses:
Samuel E. Young
May Downey.

Inventor
Edward Court.
By Wright Brown & Young
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD COURT, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF TO GEORGE J. MEYER, OF MILWAUKEE, WISCONSIN.

CAP-SCRUBBING ELEMENT FOR CROWN-CORKING MACHINES.

1,190,384. Specification of Letters Patent. Patented July 11, 1916.

Application filed December 27, 1915. Serial No. 68,641.

To all whom it may concern:

Be it known that I, EDWARD COURT, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Cap-Scrubbing Elements for Crown-Corking Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention refers to crown corking machines and has for its object to provide a simple, economical and effective means in connection with the feed throat of such machines for cleansing the inner surfaces of the crown caps as they travel from the hopper in uniform order to the crimping head.

In practice it has been found that the crown corks as supplied from manufacturers are more or less coated with fine metallic particles and other foreign matter which accumulate due to the abrasive contact of the caps as they shift about in bulk within the hopper. Hence the foreign particles will accumulate upon the cork disk filler, which filler is thereafter exposed to the fluid contents of the corked bottle, whereby serious contamination of the product results. My invention is designed to overcome these objectionable features, whereby the crown corks are thoroughly dry scoured to render them sanitary by subjecting said caps to an abrasive or scrubbing element.

With the above objects in view the invention consists in certain peculiarities of construction and combination of parts as set forth hereinafter with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a fragmentary elevation of a crown-corking machine of a well known type having attached thereto an abrasive element embodying the features of my invention, which element, in this exemplification, is shown in the form of a rotary brush; Fig. 2, an enlarged detail cross-section of the brush mechanism, the section being indicated by line 2—2 of Fig. 3, and Fig. 3, a cross-section of the same, the section being indicated by line 3—3 of Fig. 1.

Referring by characters to the drawings, 1 represents the hopper of a crown corking machine having a revoluble crimping head 2 thereunder, which crimping head comprises a centering disk 3 and a series of crimping barrels 4 positioned thereover. The hopper is provided with a discharge neck 1′, which neck communicates with the crimping disk 3 by means of a cap delivery throat 5. The said throat is formed with a rear wall 5′ and side walls 6′ having inwardly extended lip strips 7, whereby a throat channel is provided through which the series of crown caps A are adapted to travel by gravity to the crimping head. The crown caps are of the usual type having some form of pliable disk B fitted therein, which is preferably composed of cork. The crimping machine and crown corks form no part of my invention and therefore are not described in detail. The throat 5 is, as best shown in Figs. 1 and 2, provided with an intermediate outwardly bowed section A with the open portion facing outwardly, whereby the caps as they travel downwardly present a clear field for access to their inner faces which contain the cork disks. The hopper neck has projecting therefrom a revoluble shaft 8 carrying a drive-pulley 8′, whereby motion is transmitted to the scrubbing or abrading element. In this exemplification of my invention the bowed portion C of the skeleton trough 5 has secured thereto a bracket 9 having legs projecting outwardly that terminate with journal boxes 9′ in which are mounted a brush spindle 10. One end of the brush spindle carries a comparatively small pulley 8″, which is adapted to be revolved at a right angle to the drive pulley 8′ and is connected thereto by a twisted belt 11. The brush spindle carries a brush head 10′ having projecting therefrom a series of brushing tufts 12, which tufts, when rotated are adapted to enter the juxtaposed bowed portion of the throat 5 and engage the inner surfaces of the crown caps as they travel past a vertical line intersecting the axis of the brush and the axis of the bowed portion C of said throat, the brush being revolved in the opposite direction from that of travel of the crown caps.

From the foregoing description it will be manifest that when motion is imparted to the crown corking machine, this motion is transmitted to the rotatory scrubbing brush, which brush develops comparatively

high speed and its tufts revolving over the inner surfaces of the caps will thus thoroughly scrub or cleanse the same from any foreign particles that may adhere to the inner surface of the caps. These particles or refuse which are removed from the caps by scrubbing are preferably trapped in a collecting hopper 13, which is positioned under the brush, as shown, and the said refuse may be then delivered from the collecting hopper into any desired receptacle, not shown.

It is obvious that, while I have shown a scrubbing element in the form of a tufted brush, any suitable scrubbing device other than that illustrated may be employed without departing from the spirit of my invention.

I claim:

1. The combination of a crown-corking machine comprising a hopper, a crimping head, and a throat leading from the hopper in communication with the head through which crown corks are adapted to travel with their inner surfaces uniformly exposed, and a scrubbing element juxtaposing the feed throat adapted to successively engage the inner surfaces of said caps.

2. The combination of a crown-corking machine comprising a hopper, a crimping head, and a throat leading from the hopper in communication with the head through which crown corks are adapted to travel with their inner surfaces uniformly exposed, and a rotatory scrubbing brush juxtaposing the feed throat adapted to successively engage the inner surfaces of said caps.

3. The combination of a crown corking machine comprising a hopper, a crimping head and a skeleton feed throat in communication with the head and hopper, the throat being bowed outwardly in the direction of its skeleton surface, the said throat being adapted to receive crown corks with their inner surfaces projecting toward the skeleton face of the throat, and a rotatory scrubbing brush juxtaposing the aforesaid skeleton face of the throat for successive engagement with the inner surfaces of the crown caps as they travel past said brush.

4. The combination of a crown corking machine having a hopper, a revoluble shaft projecting therethrough, a crimping head positioned under the hopper, a throat in communication with the hopper head having a portion thereof apertured, a revoluble brush adapted to enter the throat at the apertured portion thereof, a pulley carried by the brush, a pulley carried by the crown corking machine shaft, and a belt connection between the pulleys.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

EDWARD COURT.

Witnesses:
GEO. W. YOUNG,
M. E. DOWNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."