

(No Model.)

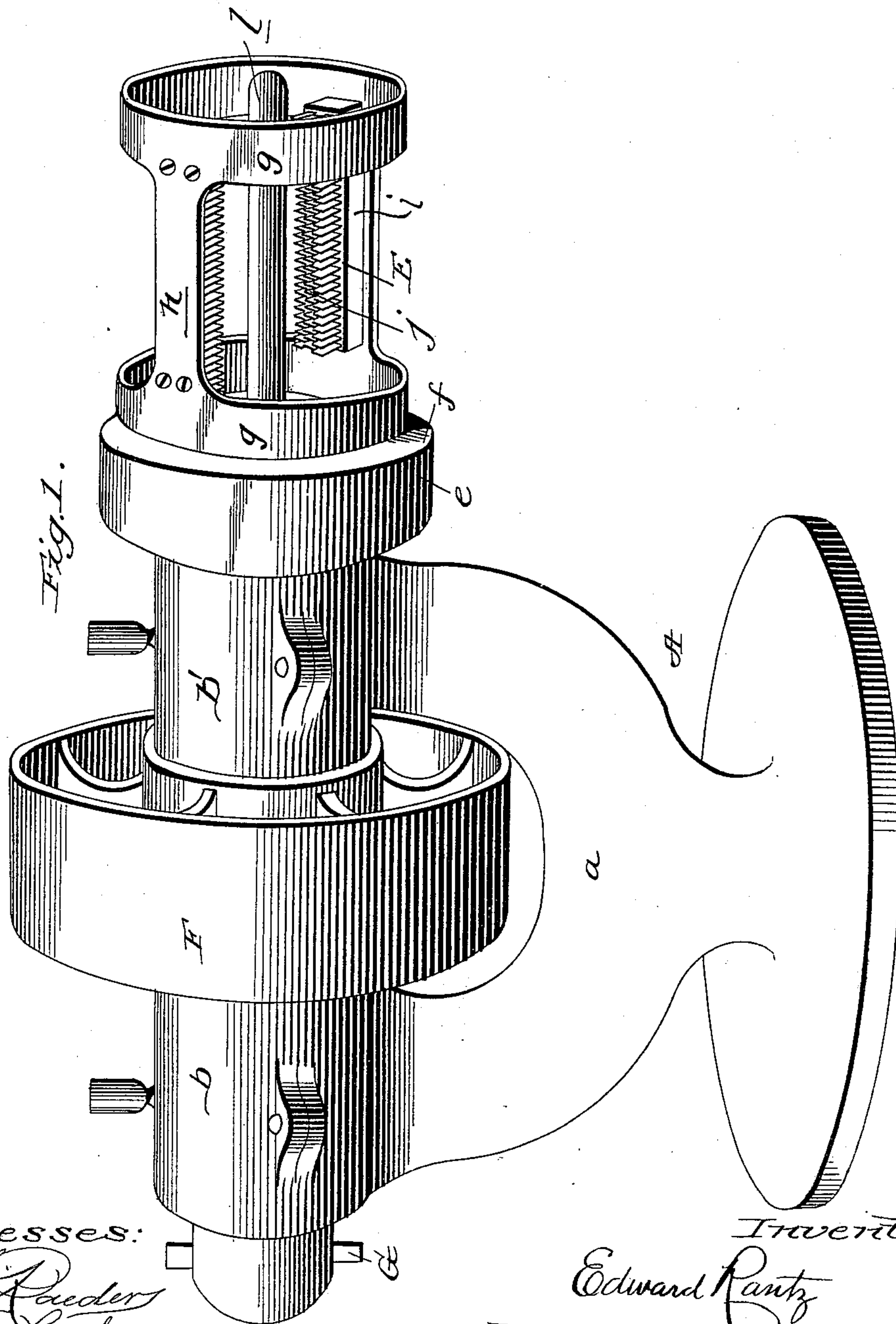
2 Sheets—Sheet 1.

E. RANTZ.

MACHINE FOR REMOVING TIN FOIL FROM BOTTLES.

No. 518,275.

Patented Apr. 17, 1894.



Witnesses:
C. H. Paeders
R. H. Matthews.

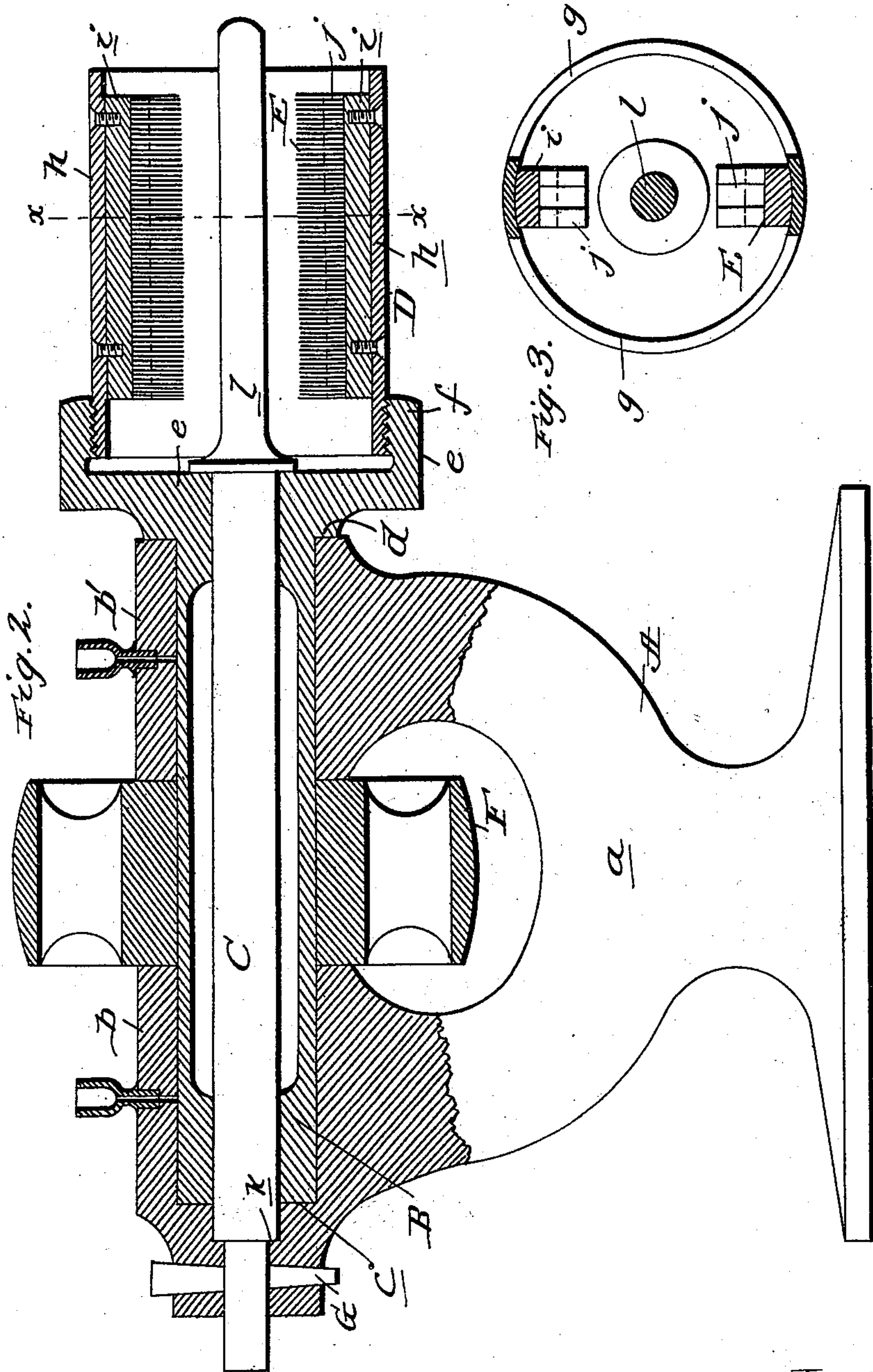
Inventor
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UNITED STATES PATENT OFFICE.

EDWARD RANTZ, OF NEW ORLEANS, LOUISIANA.

MACHINE FOR REMOVING TIN-FOIL FROM BOTTLES.

SPECIFICATION forming part of Letters Patent No. 518,275, dated April 17, 1894.

Application filed May 19, 1893. Serial No. 474,850. (No model.)

To all whom it may concern:

Be it known that I, EDWARD RANTZ, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Machine for Removing Tin-Foil from Bottles, of which the following is a specification.

My invention relates to an improved machine for removing tin foil and the like from the necks and heads of bottles; and its novelty will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a perspective view of my improved machine. Fig. 2, is a vertical longitudinal section, partly in elevation of the same, and Fig. 3, is a detail transverse section taken in the plane indicated by the line *x, x*, of Fig. 2.

In the said drawings, similar letters designate corresponding parts throughout the several views, referring to which—

A, indicates the standard or main frame of the machine, which preferably comprises the body portion *a*, and cap blocks as *b, b'*, and B, indicates the tubular shaft which abuts at its inner end against shoulders *c*, formed in the body portion *a*, and cap block *b*, as shown. The said tubular shaft B, surrounds a spindle C, as illustrated, and it is provided adjacent to its outer end with a shoulder *d*, to abut against the body portion *a*, and cap block *b'*, and is also provided at its outer end with a head *e*, having a circular flange *f*, which is interiorly threaded for the engagement of the circular brush frame D. This brush frame is preferably formed from metal and it comprises the circular bands *g*, at its opposite ends, and the diametrically-opposite bars *h*, which serve to connect the said bands, and also serve for the connection of the heads *i*, of the brushes E. The brushes E, are connected to the bars *h*, of the frame D, by screws or any other suitable devices that will admit of their ready disconnection, and they are provided with the flat steel bristles *j*, which are disposed at right angles to the length of the heads *i*, so as to cut the tin foil and quickly and thoroughly remove the same from the bottles.

By reason of the peculiar construction of the brush frame D, it will be readily per-

ceived that a free outlet is afforded for the removed tin foil and consequently the very objectionable choking or clogging of the brushes is effectually prevented which is a desideratum.

The tubular shaft B, which carries the brush frame D, is provided with a fixed pulley F, through the medium of which it may be rotated by the belt from a suitable motor, but the spindle C, which rests within the said shaft B, as before described, is fixed against rotation, preferably by a key as G, so as to diminish the liability of breaking the bottles while the foil is being removed therefrom. The said spindle C, is preferably provided adjacent to its inner end with a shoulder as *k*, and it is also provided at its outer end with a head *l*, which rests within the brush frame and serves as a support for the bottle while it is being operated upon. This head *l*, bears against the head *e*, of the tubular shaft, as shown, and in addition to supporting the bottle, it serves to effectually prevent endwise play of the tubular shaft and the parts connected therewith.

In the practical operation of the machine, it will be seen that when a bottle is held in position upon the head of the spindle C, and the shaft B, is driven so as to make about twelve hundred revolutions per minute, the steel bristles of the brushes carried by the frame D, will quickly and thoroughly cut and remove any foil that may be upon the bottle without breaking, scratching or otherwise damaging the same.

It will be noticed from the foregoing description taken in connection with the drawings that my improved machine is very simple and compact, and it will also be noticed that the machine is very durable and that the parts most liable to wear are so connected that they may be readily removed when worn and damaged and new parts placed and secured in position without the employment of skilled labor.

Having described my invention, what I claim is—

1. In a machine for removing tin foil from bottles, the combination with the main frame; of the horizontal spindle fixed in said frame, and having the head *l*, at its outer end, the tubular shaft B, rotatable in the main frame

and around the spindle, and having the flanged head *e*, at its outer end, the open brush frame *D*, detachably connected to the flanged head of the tubular shaft, and the
5 brushes secured in said head, substantially as specified.

2. The herein described machine for removing tin foil from bottles, consisting of the standard or main frame, the spindle fixed
10 with respect to the main frame and having a head *l*, at its outer end, the tubular shaft journaled in the main frame and surrounding the spindle and having the flanged head *e*, at its outer end, the brush frame *D*, de-

tachably connected to the flanged head of the
15 tubular shaft and comprising the bands *g*, and the bars *h*, connecting said bands, and the brushes comprising the heads *i*, connected to the bars *h*, of the brush frame, and the flat metallic bristles disposed at right angles to
20 the length of the heads, all substantially as and for the purpose set forth.

EDWARD RANTZ.

Witnesses:

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