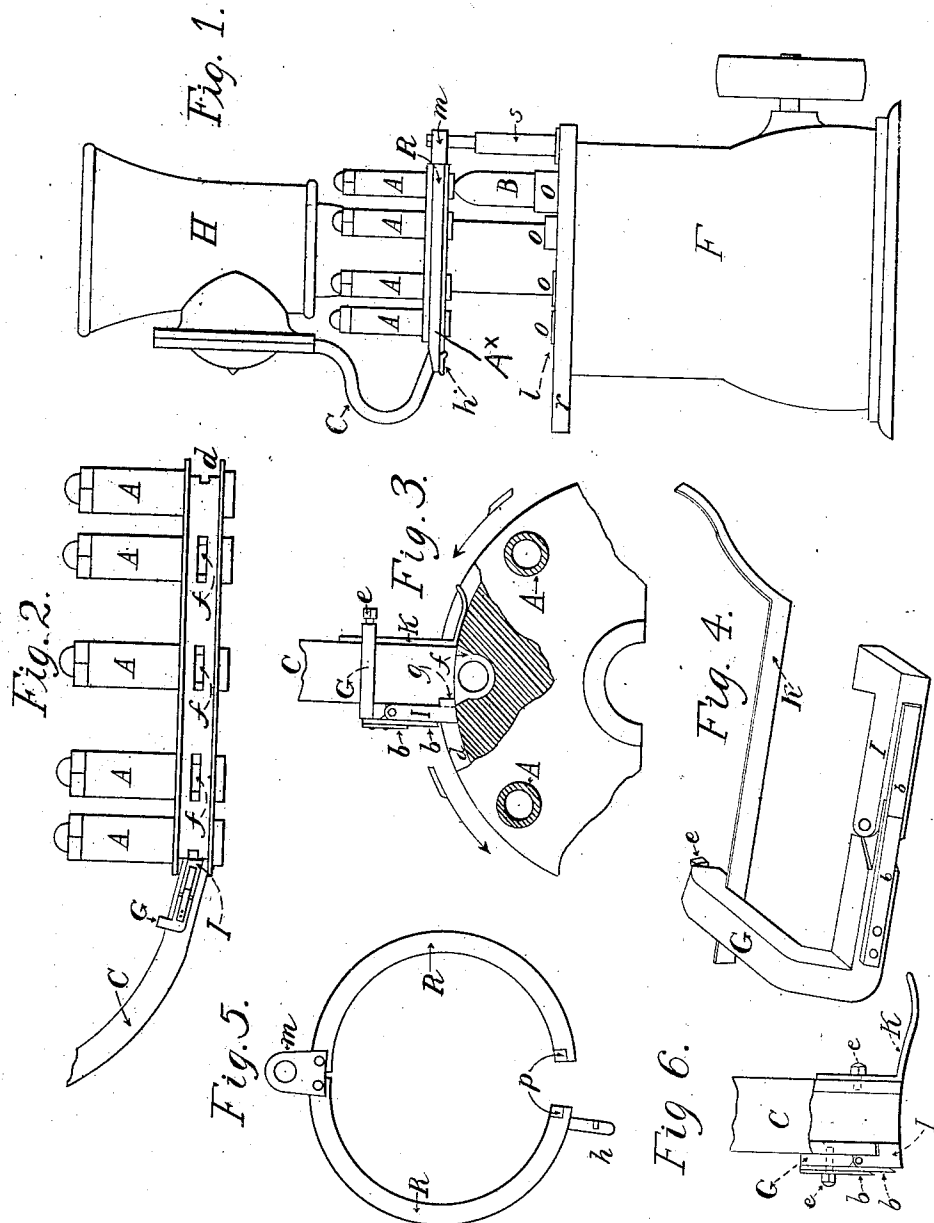


M. H. MULKEY.
 ATTACHMENT FOR BOTTLE STOPPERING MACHINES.
 APPLICATION FILED SEPT. 16, 1907.

908,688.

Patented Jan. 5 1909.



WITNESSES:
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MARTEN HENRY MULKEY, OF SEATTLE, WASHINGTON.

ATTACHMENT FOR BOTTLE-STOPPERING MACHINES.

No. 908,688.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed September 16, 1907. Serial No. 393,199.

To all whom it may concern:

Be it known that I, MARTEN HENRY MULKEY, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Attachment for Bottle-Stoppering Machines, of which the following is a specification.

My invention relates to improvements in bottle-stoppering machines in which the bottles are crowned or sealed with cork lined metal crowns, said crowns being fed from a chute into a rotating series of crowning heads. The heads of the bottles are forced into the crowning heads and the crowns crimped over their mouths; and the objects of my invention are, first, to provide an adjustable attachment to automatically release all defective or damaged crowns which clog up and wear out the parts and cause stoppage of the machine; second, to dispense with the expensive channel ring generally used, which fits into the channel into which the crown chute enters, and third, by dispensing with said channel ring, to be able to instantly locate trouble without unbolting and unlatching said channel ring as heretofore. I attain these objects by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a front elevation of a standard bottle-stoppering machine as now in use; Fig. 2 is a front elevation of the rotating crowning heads with the channel ring removed, exposing the slots by which the crowns enter the crowning heads, also showing the crown chute with the attachment forming the object of my invention in position; Fig. 3 is a top view of a segment of the crowning heads with a portion cut away, exposing the channel and slot and showing the attachment and adjusting spring secured to the crown chute; Fig. 4 is a detail view in perspective of the attachment and adjusting spring; Fig. 5 is a top view of the channel ring; and Fig. 6 is a top view of the crown chute with the cover partly removed, showing the spring latch and the adjusting spring each bolted permanently to the crown chute.

Similar letters refer to similar parts throughout the several views.

In Fig. 1, "H" is a hopper into which the crowns are placed in bulk, sorted and delivered to the crown chute "C", down which they fall in single succession into the crowning heads, "A A A A", as they revolve before said chute "C" said heads are carried by a rotating disk A*. When all the said crown-

ing heads "A A A A", are each supplied with a crown, no more pass from chute "C". The channel ring "K" is hinged to holder "m", secured to standard "s", and opens and closes by latch "h", this ring is cut away as shown at "p" (Fig. 5) for the crown chute to enter. The bottle seats "o o o o" revolve on the same shaft as the crowning heads "A A A A", each seat under its respective crowning head; bottles are placed on seats "o o o o" at point "l" and the seats and heads revolve from left to right, the seats ascending a gradual incline to the point illustrated by bottle "B", at which point the bottle is forced into the crowning head "A", the crown crimped over its mouth after which the seat and bottle descend the incline on the opposite side resuming the level of the table "r" and the bottle is discharged, the empty crowning head receiving a new crown as it revolves before the chute "C". The base "F" contains the machinery necessary to revolve the crowning heads and seats, also to operate the hopper "H".

The above arrangement is well known and forms no part of my invention.

In carrying out my invention as shown in Fig. 2, I omit the ring R, thus exposing the channel "d" and the slots "f f f" through which the crowns enter and the crown chute "C" with my improved attachment is arranged so that its end will project into the channel "d". The said attachments are shown in Fig. 4, and consist of a latch "I", shaped to fit over the mouth of the chute "C", (Fig. 3), and said latch is hinged to the clamp "G" and pressed against the side of said chute "C" by springs "b b", the clamp "G" is secured to said chute "C" by the set screw "e", after adjusting-spring "K" (Fig. 3) is placed in position.

In Fig. 6 the attachment is bolted to the walls of chute C by screws e e, the parts K and G being separate.

Referring to Fig. 3 the attachments operate in the following manner: The crowning heads "A A" revolve before the chute "C" in the direction indicated by the arrows, and should a crown be carried entirely around with the head and become dislodged or protrude in the crowning head "A" on the right, approaching chute "C", it will be forced back into place when it comes in contact with the curved end of spring "K"; if a damaged crown refuses to pass into slot "f" from chute "C" or fouls a crown already in

said slot "f", it will be carried against point "g" of latch "I", causing said latch "I" to open and release the defective crown, latch "I" instantly resuming its place by springs "b".

Without these attachments and by using channel ring "R" (Figs. 1 and 5), it was found that defective crowns would become flattened and were carried around in the space between said channel ring "R" and channel "d" (Fig. 2), cutting and wearing the parts, and necessitating stopping the machinery and unlatching the channel ring "R".

What I claim as my invention and desire to secure by Letters Patent is:

1. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering the crowns to each head in succession, and means at the point of connection of the chute with the head for releasing the crown when said crown is prevented from entering the crowning head.

2. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering crowns to each head in succession, and yielding means carried by the chute at the point of connection of the chute with the head for releasing the crown when said crown is prevented from entering a head.

3. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering crowns to said heads in succession, and a spring latch removably secured to the chute for releasing the crown when the latter is prevented from entering a head.

4. A bottle stoppering machine compris-

ing a rotating disk, a series of crowning heads therein, a chute for delivering crowns to each of said heads in succession, and a spring latch removably connected to said chute for releasing a crown when the latter is prevented from entering a head.

5. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering crowns to each of said heads in succession, a latch pivoted to the chute and adapted to release a crown when the latter is prevented from entering a head, a spring controlling the movement of said latch, and means for detachably connecting said latch to the chute.

6. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering crowns to each of said heads in succession, and a spring for forcing the crowns into the said heads.

7. A bottle stoppering machine comprising a rotating series of crowning heads, a chute for delivering crowns to each of said heads in succession, a spring-controlled latch for releasing a crown when the latter is prevented from entering a head, a spring for forcing the crowns into the said heads and a yoke detachably connecting the said spring and latch to the chute.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARTEN HENRY MULKEY.

Witnesses:

G. S. ROBISON,
E. F. WEIDNER