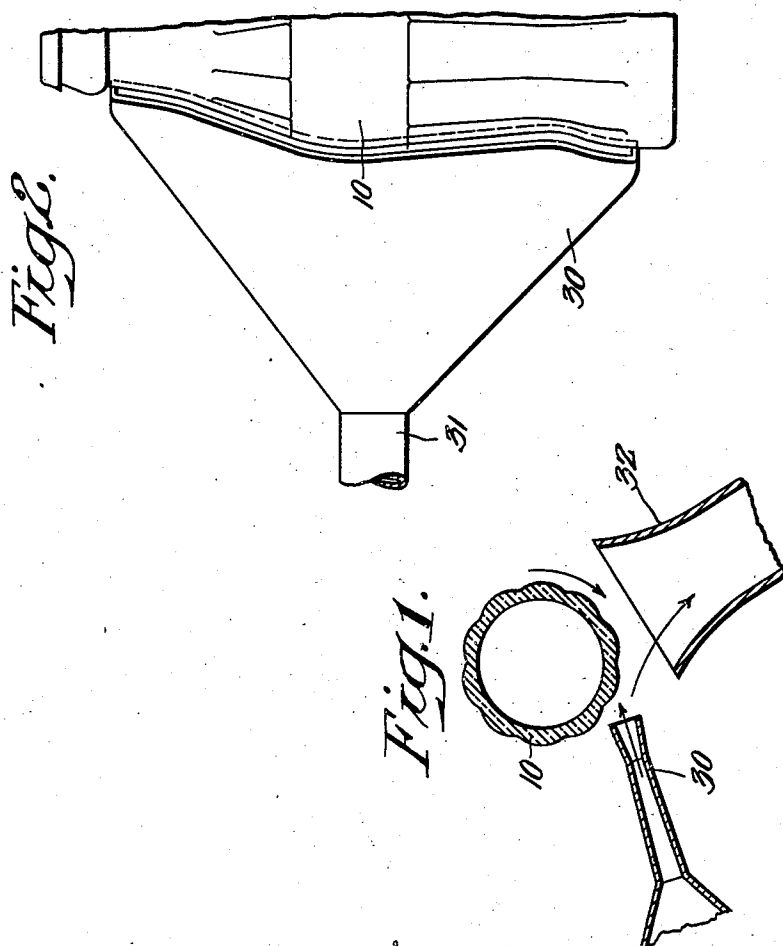


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L. T. SACHTLEBEN
BOTTLE INSPECTING DEVICE

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2,200,100

BOTTLE INSPECTING DEVICE

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Application April 28, 1937, Serial No. 139,386

3 Claims. (Cl. 34—26)

This invention relates to an improved bottle inspecting device and more particularly to a compressed air brush for removing fluid from the exterior of bottles.

5 In my application Serial No. 133,992, filed March 31, 1937, I describe and claim an improved optical system for examining the fluid contents of bottles and which is particularly adapted for use with fluted bottles such as are often used for
10 containing carbonated beverages. In the use of such apparatus it has been found that freshly filled bottles often have water or portions of the liquid with which they have been filled adhering to their exterior surfaces, and when the bottle
15 is examined, these drops of fluid produce the effect of foreign material within the bottle. The present invention relates more particularly to means for removing this fluid from the exterior of the bottle.

20 At one stage of the handling of the bottle in an inspecting machine the bottle is whirled very rapidly, and in order to remove fluid from the exterior of the bottle, I apply thereto, while the bottle is being whirled, a jet of air at high velocity. This, in cooperation with the centrifugal
25 force produced by the whirling of the bottle, removes any surface fluid practically instantly and permits accurate inspection of the bottle.

One object of my invention is to provide an
30 improved means for removing fluid from the exterior surface of bottles.

Another object of my invention is to provide means for removing fluid from the exterior surface of bottles without interfering with the operation of a bottle inspecting machine.

35 Another object of my invention is to provide such a device which can be readily incorporated in a bottle inspecting machine or other bottle handling device.

40 Other and incidental objects of my invention will be apparent to those skilled in the art from a reading of the following specification and inspection of the accompanying drawing in which

Figure 1 is a transverse section through a modified form of the invention, and

Figure 2 is an elevation of the device shown in Fig. 1.

In the form of the invention shown in Fig. 1 5 a nozzle 30 is provided which, as shown in Fig. 2, is shaped to correspond to the external configuration of the bottle. Compressed air is supplied through a pipe 31 and this is directed in the form of a thin sheet at a high velocity against the surface of the bottle. As indicated in Fig. 1, the nozzle
10 is directed substantially tangentially toward the bottle at opposition to the direction of rotation so that the action of the compressed air and centrifugal force cooperate to blow the particles
15 of water radially away from the bottle. An exhaust nozzle 32 may be provided connected to an appropriate exhaust fan for withdrawing the water blown from the bottle and preventing its being
20 spattered on other parts of the machine. In this form of the invention the nozzles are located at the stations where it is desired to remove the water from the bottle and the bottles are moved past the nozzles.

Having now described my invention, I claim: 25

1. A bottle inspecting device including means for rapidly whirling a bottle and means for directing a stream of air at high velocity tangentially against said bottle while it is being whirled.

2. A bottle inspecting device including means 30 for whirling the bottle and means for directing a stream of air tangentially thereagainst in a direction opposite to the direction of rotation while the bottle is being whirled.

3. A bottle inspection device including means 35 for rotating the bottle, means adapted to direct a stream of air tangentially thereagainst in a direction opposite to the direction of said rotation for removing liquid from the surface of said bottle, and means for removing said liquid from the
40 vicinity of said bottle.

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