Nov. 9, 1926. 1,606,486

G. M. STEVENS

SEALING RING FOR CAN TESTING MACHINES

Filed August 28, 1924

Fig. 1.

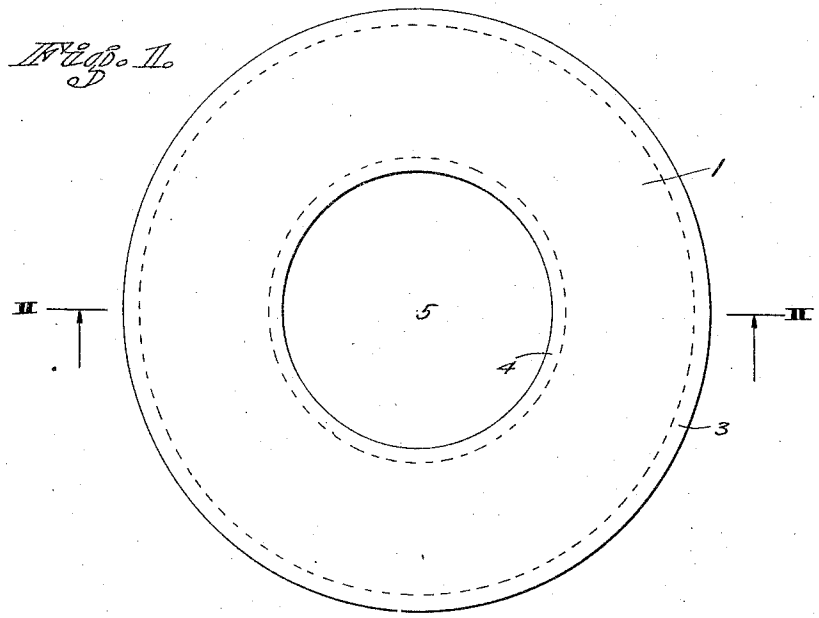


Fig. 2.

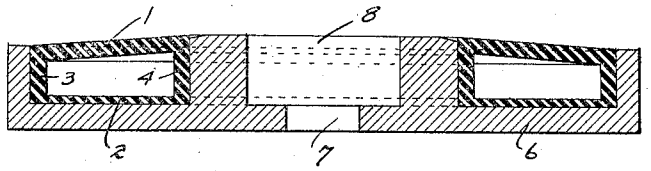


Fig. 3.

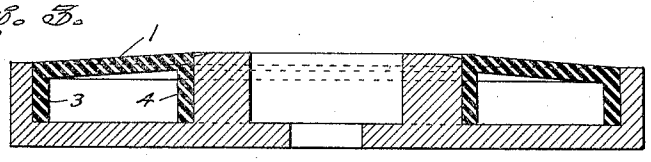


Fig. 4.

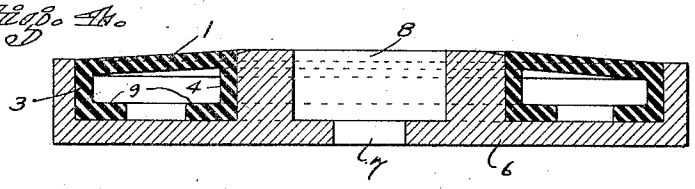
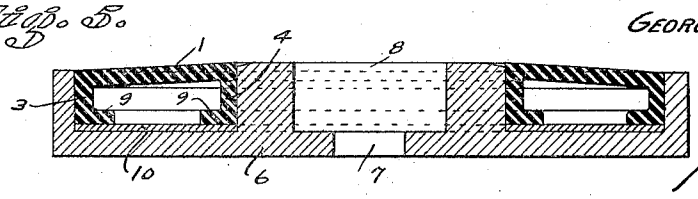


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SEALING RING FOR CAN-TESTING MACHINES.

Application filed August 28, 1924. Serial No. 734,820.

This invention relates to can testing machines and in particular to the sealing ring upon which the can is seated during the testing of the same with air under pressure while the can is submerged in water, or by the other method of testing wherein the air is exhausted from the can while the can is seated with its open end upon the sealing ring, all in the manner well known.

The objects of my invention are to provide a special sealing ring which will go in place on the standard can testing machines and which will give a more effective seal than the rings heretofore used.

In the drawings hereto Figure 1 is a plan view of my ring.

Figure 2 is a central cross section of the ring as seen from the line 2—2 of Figure 1, but the ring is shown mounted in one of the flanges of the can testing machine and which flange is also shown in cross section.

Figures 3, 4 and 5 are similar sections to that shown in Figure 2, but show several modifications of the ring.

In further detail my preferred construction illustrated in Figures 1 and 2, shows the ring to comprise an upper disk 1 of soft resilient rubber, a lower disk 2, outer wall 3 and inner wall 4, all vulcanized together so as to form an air tight hollow resilient ring with a clear central opening 5.

This ring in use is seated in one of the metal flanges 6 of the can testing machine and which flange has inner and outer walls embracing and giving lateral support to the ring, and also has a central hole 7 for admission of the testing air to the can when inverted over the hollow rubber ring, and counter bored at 8 for securing to the machine.

In studying Figure 2, it will be observed that the inner wall 4 is slightly higher than the outer wall 3 and whereby the upper disk takes an inclination upward away from the edges. This considerably facilitates positioning of the cans during the operation of the machine.

The precise proportions of the rubber walls depends to a certain extent on the particular grade of rubber and service but the thickness shown in Figure 2 has been found most satisfactory in actual use, and in this construction the lower disk 2 is about a sixteenth of an inch thick, or half that of the side walls and upper disk.

In Figure 3 a modification is shown embracing all the same elements and similarly numbered as shown in Figure 2 with the exception of the lower disk 2, and in Figure 4 the construction varies from that of Figure 3 by forming return flanges 9 on the inner and outer walls.

The two modifications illustrated in Figures 3 and 4 will function similar to the enclosed construction of Figure 2 except that if the ring is not a tight fit within the metal flange, there is a possibility of the air escaping around the edge when the can is forced upon the upper disk, whereas with the preferred construction the air cannot escape and offers an increasing pressure around the can rim as the latter is pressed upon it.

In Figure 5 a rubber ring of the form shown in Figure 4 is used but a metal disk 10 is vulcanized to the rubber return flanges 9 to form a sealed enclosure.

In contemplating my invention above described, it is manifest that numerous combinations of metal or other material and rubber can be made without departing from the spirit of my invention, for it is apparent that the upper disk is the only one which must of necessity be of soft resilient rubber, tho to make the ring commercially practicable the entire article is made of the same material.

I claim:

1. In a can testing machine, a ring having an annular recess extending downwardly from the top thereof and an air cushioned ring in said recess adapted to contact with the end of a can, said air cushioned ring being made from a material having the general characteristics of rubber.

2. In a can testing machine, a ring having an annular recess extending downwardly from the top thereof and an air cushioned ring in said recess adapted to contact with the end of a can, said air cushioned ring being made from a material having the general characteristics of rubber, said air cushioned ring sloping upwardly from its periphery.

3. In a can testing machine, a ring having an annular recess extending downwardly from the top thereof and an air cushioned

ring in said recess adapted to contact with the end of a can, said air cushioned ring being made from a material having the general characteristics of rubber, said air cushioned ring being open at the bottom.

4. In a can testing machine, a ring having an annular recess extending downwardly from the top thereof and an air cushioned ring in said recess adapted to contact with the end of a can, said air cushioned ring being made from a material having the general characteristics of rubber, said air cushioned ring having an annular aperture therearound in its bottom.

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