Jan. 1, 1957 W. COOKSON 2,776,159

CLOSURE RING FOR CONTAINER

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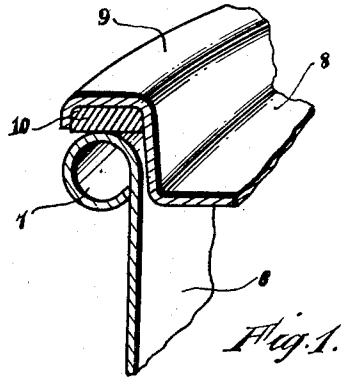


Fig. 1.

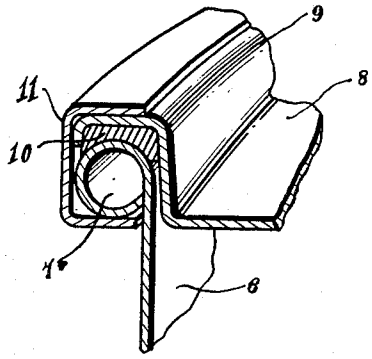


Fig. 2.

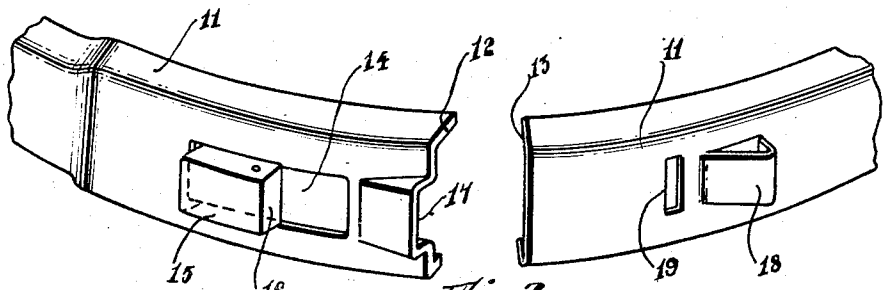


Fig. 3.

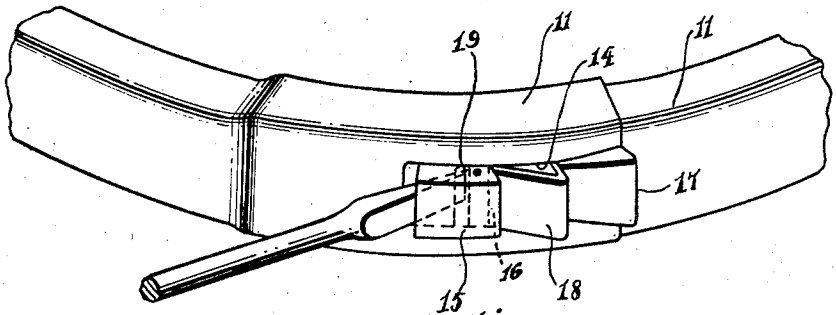


Fig. 4.

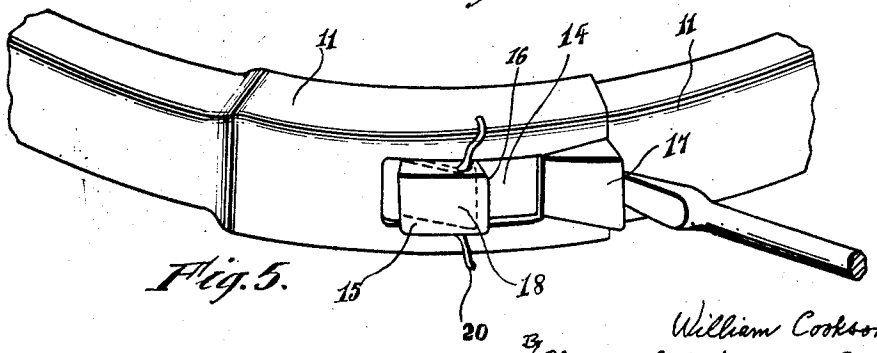


Fig. 5.

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CLOSURE RING FOR CONTAINER

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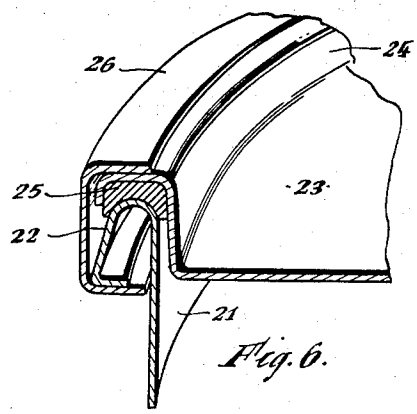


Fig. 6.

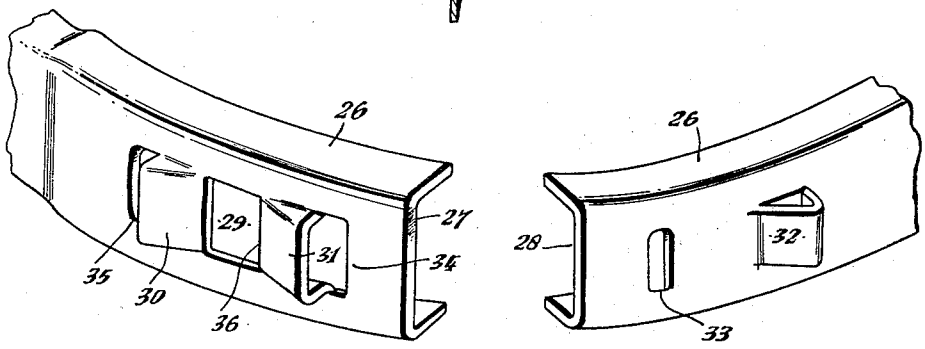


Fig. 7.

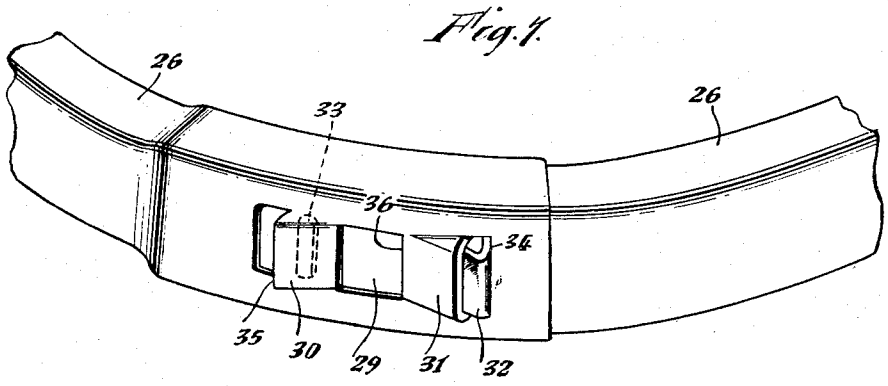


Fig. 8.

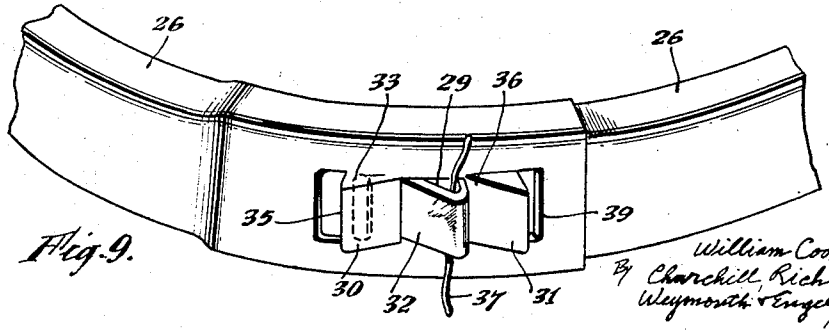


Fig. 9.

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2,776,159

CLOSURE RING FOR CONTAINER

William Cookson, Fareham, England

Application January 20, 1954, Serial No. 405,130

Claims priority, application Great Britain January 21, 1953

2 Claims. (Cl. 292—256.6)

This invention relates to improvements in closure rings for containers, and has for an object to provide means for latching together the ends of closure rings.

Another object of the invention is to provide latching means for closure rings, which eliminate the use of toggles and similar devices.

A further object is to provide latching means which can be cheaply produced and operated without the use of special tools.

In accordance with the invention I provide latching means for a releasable closure ring for securing a lid to a container, said closure ring being transversely separated and provided adjacent the ends formed by said separation with snap action latching means comprising a wedge-shaped catch in one end of said ring to engage in one or more slots or recessed parts or members in the other end of the ring adapted to engage with said catch.

In order that the invention may be clearly understood, and readily carried into effect, reference will be made to the accompanying drawing, wherein the invention is illustrated by way of example.

Referring to the drawings:

Figure 1 illustrates a fragmentary perspective view of the lid and top of a container;

Figure 2 illustrates a fragmentary perspective view of the container lid and top fitted with a closure ring;

Figure 3 illustrates in fragmentary perspective view the preferred form of latching means on the ends of the closure ring;

Figure 4 illustrates in fragmentary perspective view the closure ring latched together in one position;

Figure 5 illustrates in fragmentary perspective view the closure ring latched together in a second position;

Figure 6 illustrates a fragmentary perspective view of a container lid and another type of a container, fitted with a closure ring;

Figure 7 illustrates a fragmentary perspective view of an alternative form of latching means on the ends of the closure ring shown in Fig. 6;

Figure 8 illustrates a fragmentary perspective view of the closure ring shown in Fig. 6, latched together in one position, and

Figure 9 illustrates a fragmentary perspective view of the closure ring shown in Fig. 6, latched together in a second position.

In Fig. 1, the top of a container **6**, of circular or similar shape made from metal, plastic, or other suitable material, has a chime or bead **7**. A lid **8** has a flanged periphery **9** in which is held a suitable gasket **10**. In Fig. 2, a closure ring **11**, made of sheet metal, plastic, or other suitable material, comprises a section of substantially channel or U form which embraces and secures the lid to the top of the container.

Fig. 3 shows closure ring **11** transversely separated with ends at **12** and **13**. On end **12** is provided a slot **14**, partly covered at one end by a recessed bridge or

cover **15** which has a closed end **16**. A section **17**, preferably wedge-shaped, is provided on the edge of end **12**.

On end **13** of the closure ring there are provided a wedge-shaped catch **18** and a transverse slot **19**, as shown.

To operate the latching means, the ends of closure ring **11** are drawn together until slot **14** snaps over and engages catch **18**, as in Fig. 4. In this first position of the latch, the closure ring is easily contracted sufficiently to hold the lid on the container without the necessity of applying undue force to fit the ring. More force, however, is required to contract the closure ring tightly to the container, and this is provided by a screwdriver or similar tool, which is inserted in slot **19**, as in Fig. 4, to lever bridge **15** over catch **18** until the closed end **16** snaps over said catch.

In this second position, as shown in Fig. 5, of the latch, the closure ring securely holds the lid on the container, so providing a closure which can withstand considerable damage without any leakage of the container contents. A wire seal **20** is provided to secure the latch.

To release the latch, the wire seal is removed, and a screwdriver is inserted under wedge section **17** to prize bridge **15** clear of catch **18**. The latch can be opened and closed repeatedly without deterioration in its efficiency.

In Fig. 6, the top of a container **21**, of circular or similar shape, made from metal, plastic, or other suitable material, has a chime or bead **22** of substantially wedge-shaped section, with a broad apex. A lid **23** has a flanged periphery **24**, in which is held a suitable gasket **25**. A closure ring **26**, made of sheet metal, plastics, or other suitable material, comprises a section of substantially channel or U form which embraces and secures the lid to the top of the container.

Fig. 7 shows closure ring **26** transversely separated with ends as at **27** and **28**. At end **27** is provided a slot **29**, partly covered, as shown, by recessed bridges **30** and **31**, of wedge-shaped section.

On end **28** of the closure ring there are provided a wedge-shaped catch **32**, and a transverse slot **33**, as shown.

To operate the latching means, closure ring **26** is placed round the flanged periphery **24** of lid **23**, and ends **27** and **28** drawn together until the front edge **34** of slot **29** snaps over and engages catch **32**, as in Fig. 8. Latched in the first position the closure ring is of such a diameter that it can be sprung over bead **22** to hold the lid **23** in position and to exert pressure on gasket **25** (Fig. 6). After assembly, the closure ring may be further contracted by inserting a screwdriver through slot **29** at edge **35** of bridge **30** into slot **33**, in a similar manner as for operating the latching means shown in Fig. 4. Bridge **30** is then levered forward until edge **36** of bridge **31** snaps over catch **32**.

In this second position of the latch, as shown in Fig. 9, the closure is securely fitted to the container, a wire seal **37** being provided to secure the latch against accidental opening.

To release the latch, the wire seal is removed, and a screwdriver inserted under bridge **31** to prize said bridge clear of catch **32**. The latch can be opened and closed repeatedly without deterioration in its efficiency.

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

1. Latching means for a releaseable closure ring for securing a lid to a container, said closure ring being transversely separated to provide a first end portion and a second end portion, said end portions having cooperating snap-action latching means comprising a wedge-shaped catch and a transverse slot between said wedge-shaped catch and the free end of said first end portion

of said snap ring, and at least one slot formed in said second end portion of the ring adapted to engage said wedge-shaped catch to latch said end portions in a preliminary engaging position, a recessed bridge across the slot in said second end portion and providing a shoulder against which the wedge-shaped catch in said first end portion of said closure ring may engage, the transverse slot in the first end portion providing means for insertion of a tool to reduce the closure ring to a smaller circumference and to prize and force the latching means into a final secured position.

2. Latching means according to claim 1, in which the bridge has a second shoulder against which an inserted tool may be fulcrumed to prize the latching means into final secured position.

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