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(54) **COVER FOR SEAT BELT BUCKLE**

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(76) **Inventor: Thomas Charles Baloga, Fort Mill, SC (US)**

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Correspondence Address:

DAVIS & BUJOLD, P.L.L.C.

500 NORTH COMMERCIAL STREET

FOURTH FLOOR

MANCHESTER, NH 03101 (US)

(57) **ABSTRACT**

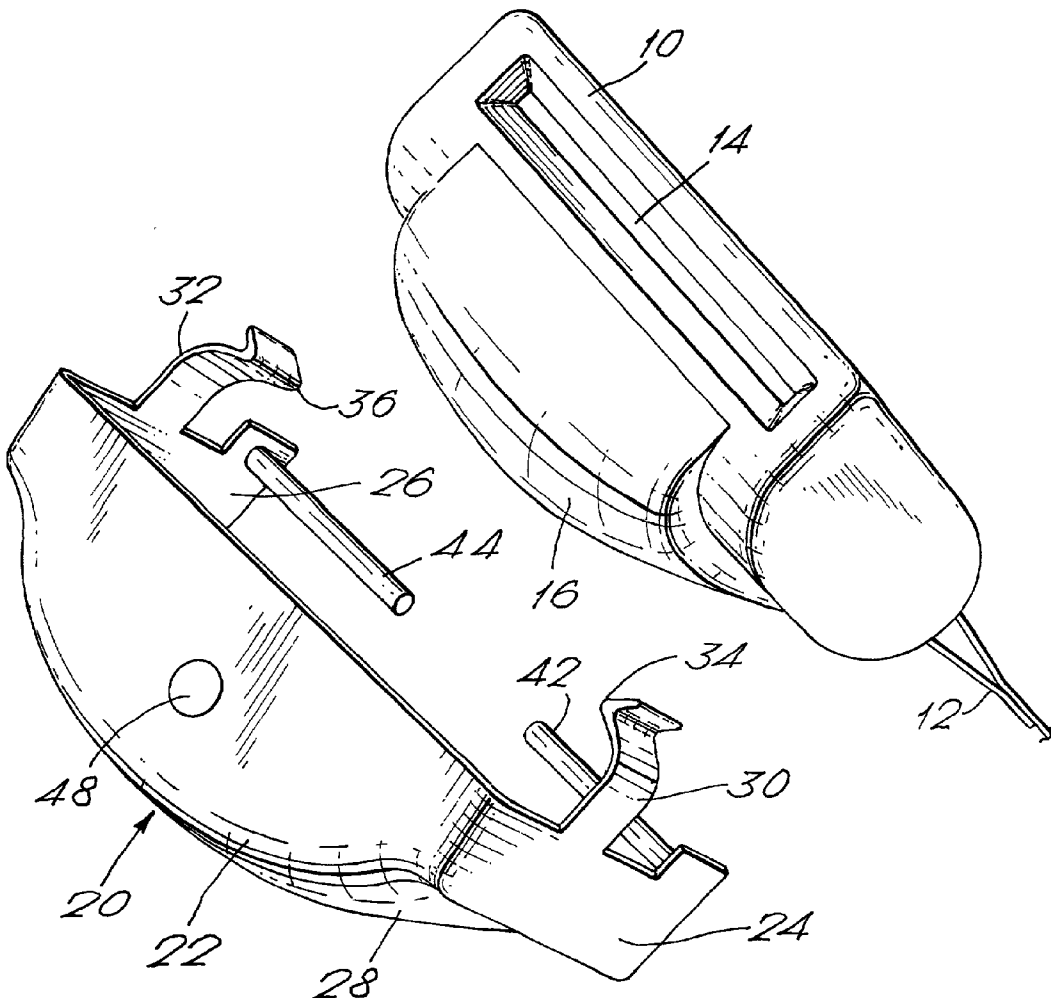
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Related U.S. Application Data

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A seat belt buckle, of the type which is released by depressing a push button, is provided with a cover having a body portion adapted to cover the push button. The cover is retained in place on the buckle by a plurality of resilient clips arranged to engage round the buckle body. The resilient clips are adapted to yield to release the cover when a force tending to dislodge the cover exceeds a predetermined value.



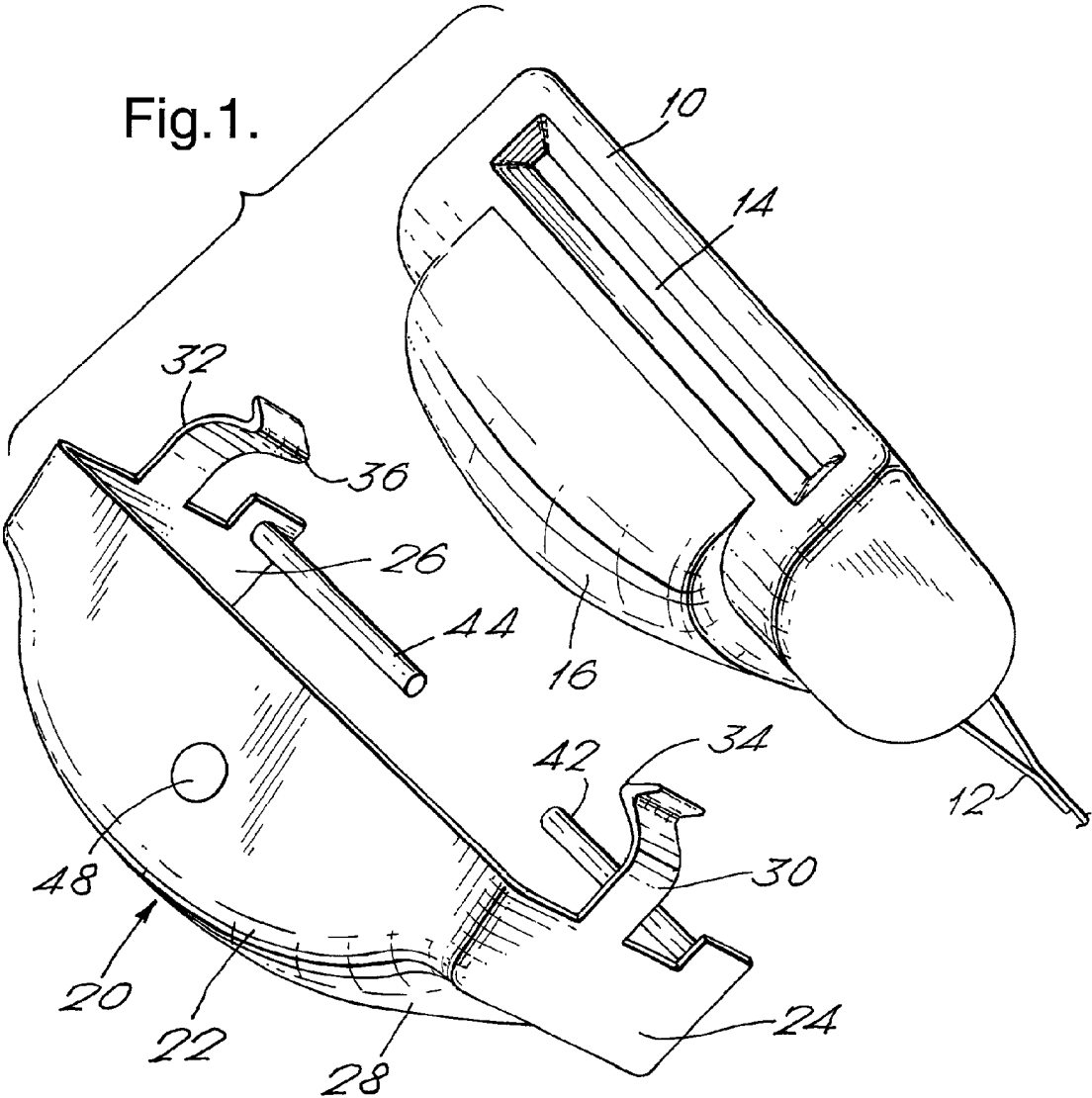


Fig.2.

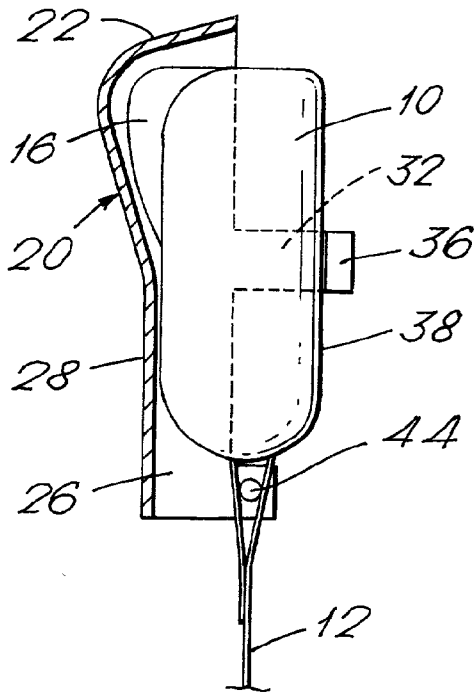
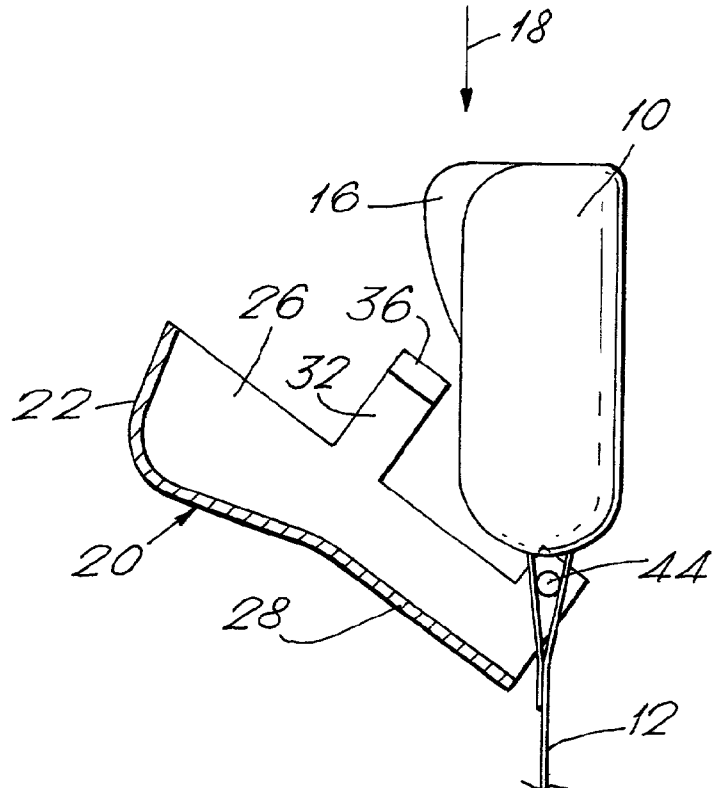


Fig.3.



COVER FOR SEAT BELT BUCKLE

FIELD OF THE INVENTION

[0001] This invention relates to a cover for a seat belt buckle of the type which is released by depressing a push button and has particular but not exclusive application to a seat belt buckle intended for use by a child.

BACKGROUND OF THE INVENTION

[0002] Problems have been encountered with children's seat belt buckles resulting from the entry of foreign material, particularly liquids, between the push button and the buckle body. Entry of such material is commonly the result of a child eating and/or drinking while in an automobile child seat. This causes problems of buckle "fouling" leading to sticking and poor buckle operation. Problems are also encountered due to a child accidentally or deliberately pressing the push button to release the buckle when the automobile is in motion.

[0003] It is an object of the invention to provide a cover for a seat belt buckle which overcomes these problems.

SUMMARY OF THE INVENTION

[0004] According to the invention, a cover for a seat belt buckle of the type released by depressing a push button comprises a body portion adapted to cover the push button and a plurality of resilient clips arranged to engage round the buckle body to retain the cover in place, the resilient clips being adapted to yield to release the cover when a force tending to dislodge the cover exceeds a predetermined value.

[0005] Preferably, the cover includes an opening opposite to the push button to enable a test probe to open the buckle when the cover is in place.

[0006] The cover may be constructed so that the force needed to displace the cover from the buckle must be applied in a direction substantially different to the direction of movement of the push button. In one form of the invention, this dislodging force must be applied in a direction substantially perpendicular to the direction of movement of the push button. Preferably, the dislodging force must be applied simultaneously at a plurality of separate locations, for example with two fingers.

[0007] The cover may be provided with interengaging formations adapted to retain the cover captive on an elongate member, such as a strap or stalk, on which the buckle is mounted, when the cover is dislodged from the buckle.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] An embodiment of the invention will be now be described, by way of example, with reference to the accompanying drawings, in which:

[0009] **FIG. 1** is an exploded perspective view of a buckle and cover in accordance with the invention;

[0010] **FIG. 2** is a side view of the embodiment shown in **FIG. 1**, with the cover in place on the buckle and the cover shown in cross-section; and

[0011] **FIG. 3** is a side view similar to **FIG. 2**, showing the cover dislodged from the buckle.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] The drawings show a seat belt buckle comprising a buckle body **10** mounted on a seat belt strap **12**. The body **10** has a slot **14** for receiving a buckle tongue (not shown) and a push button **16** which is displaceable in the direction of the arrow **18** (**FIG. 3**) to release such buckle tongue. The mechanism of the buckle **10** forms no part of the present invention and will not be described in further detail.

[0013] In accordance with one embodiment of the invention, a cover **20** comprises a sloping wall **22**, flat end walls **24** and **26**, and a front wall **28** which has a convex upper portion to accommodate the push button **16**. Projecting from each side wall **24**, **26** is an integrally-formed resilient clip **30**, **32**, having a respective detent formation **34**, **36** adapted to engage with a side surface **38** of the buckle body **10**, as shown in **FIG. 2**. This prevents access to the push button **16** by a child. The sloping top **22** wall renders removal by a child more difficult.

[0014] To release the buckle **10**, it is necessary first to apply a force to the clips **30**, **32** with two fingers. If sufficient force is applied, the resilient clips **30** and **32** yield and the cover **20** is dislodged from the buckle **10**, exposing the push button **16**. Having performed this operation, the thumb of an adult operator is then conveniently positioned to depress the push button **16**.

[0015] Inwardly directed projections **42** and **44** on the bottom of the side walls **24** and **26** engage in the opening **46** formed by the end of the strap **12**, so as to retain the cover captive after it has been dislodged, as shown in **FIG. 3**. There is sufficient gap between the confronting ends of the projections **42** and **44** to permit the cover **20** to be unhooked from the strap **12** if desired.

[0016] The top wall **22** has an opening **48** opposite to the push button **16** to enable a test probe to open the buckle when the cover is in place.

[0017] The invention is also applicable to buckles have push buttons which move in a direction perpendicular to the direction of insertion of the buckle tongue.

1. A cover for a seat belt buckle of the type which is released by depressing a push button, the cover comprising:

a body portion adapted to cover the push button, and

a plurality of resilient clips arranged to engage round the buckle body to retain the cover in place, the resilient clips being adapted to yield to release the cover when a force tending to dislodge the cover exceeds a predetermined value.

2. A cover according to claim 1, wherein the body portion has an opening opposite to the push button to enable a test probe to open the buckle when the cover is in place.

3. A cover according to claim 1, wherein the resilient clips are oriented so as to be disengageable by application of a dislodging force thereto in a direction substantially different to the direction of movement of the push button.

4. A cover according to claim 3, wherein the resilient clips are oriented so as to be disengageable by application of a dislodging force thereto in a direction substantially perpendicular to the direction of movement of the push button.

5. A cover according to claim 4, wherein the dislodging force must be applied simultaneously at a plurality of separate locations.

6. A cover according to claim 3, wherein disengagement requires application of a dislodging force simultaneously at a plurality of separate locations.

7. A seat belt buckle of the type which is released by depressing a push button, in combination with a cover comprising:

a body portion adapted to cover the push button, and

a plurality of resilient clips arranged to engage round the buckle body to retain the cover in place, the resilient clips being adapted to yield to release the cover when a force tending to dislodge the cover exceeds a predetermined value.

8. The combination of claim 7, wherein the body portion has an opening opposite to the push button to enable a test probe to open the buckle when the cover is in place.

9. The combination of claim 7, wherein the resilient clips are oriented so as to be disengageable by application of a

dislodging force thereto in a direction substantially different to the direction of movement of the push button.

10. The combination of claim 9, wherein the resilient clips are oriented so as to be disengageable by application of a dislodging force thereto in a direction substantially perpendicular to the direction of movement of the push button.

11. The combination of claim 10, wherein the dislodging force must be applied simultaneously at a plurality of separate locations.

12. The combination of claim 9, wherein disengagement requires application of a dislodging force simultaneously at a plurality of separate locations.

13. The combination of claim 7, wherein the buckle is mounted on an elongate member and the cover further comprises interengaging formations adapted to retain the cover captive on said elongate member the cover is dislodged from the buckle.

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