July 6, 1965 N. S. JOHNSON 3,193,314

CONTAINER LATCH MOUNTING

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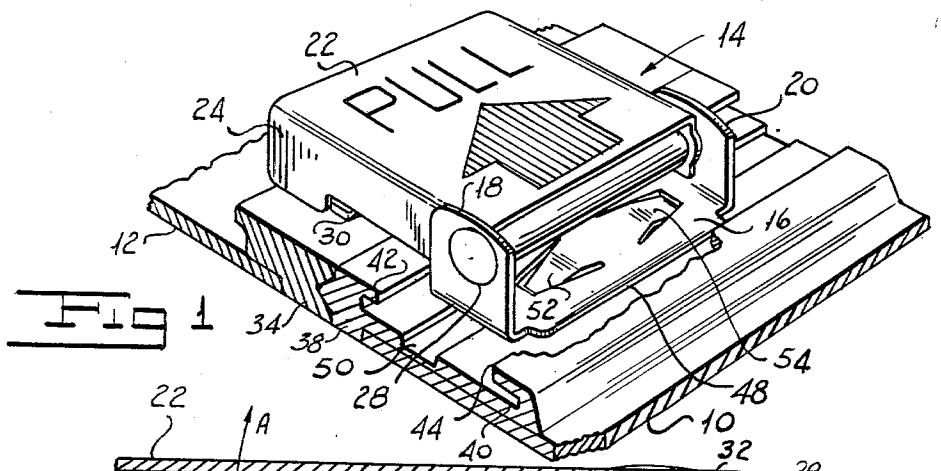


Fig 1

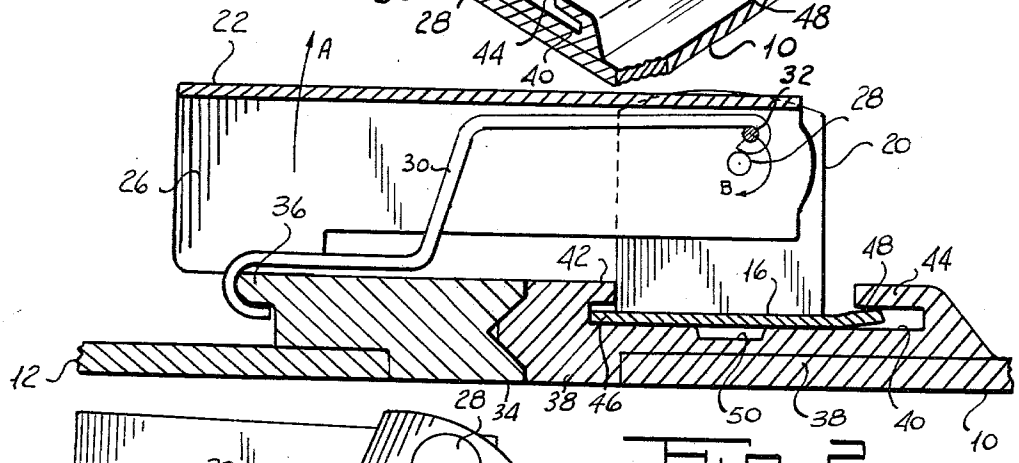


Fig 2

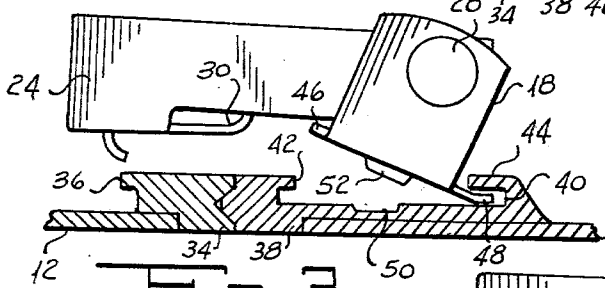


Fig 3

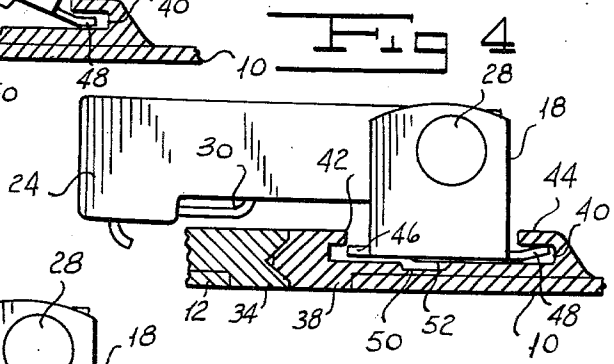


Fig 4

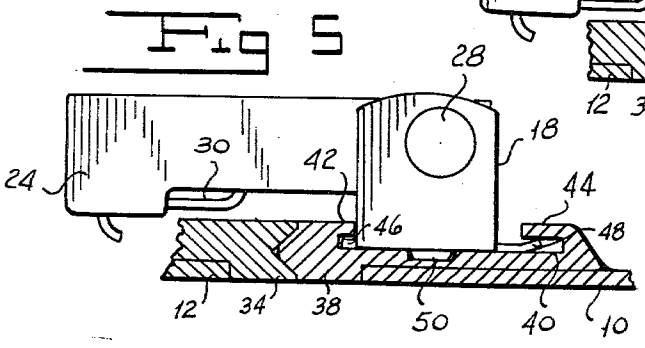


Fig 5

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CONTAINER LATCH MOUNTING

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My invention relates to a container latch mounting and more particularly to an improved container latch mounting which does not require the use of rivets or bolts or the like for securing the latch to the container.

There are known in the prior art latches for securing the cover or lid of a container to the lid body. These assemblies include a handle pivotally supported on a bracket secured to the container lid or body by bolts or rivets passing through the bracket and the container wall. The handle in turn pivotally supports a latch which in response to operation of the handle moves into engagement with a keeper on the container body to draw the parts together to provide the container with a tight seal. Where the container is pressurized, rivets or bolts which pass through the wall of the container and through the base of the latch mounting bracket have not proved satisfactory since they may cause leaks. Even for containers which are not pressurized the use of this type of fastener for securing the latch to the container applies such highly localized stresses to the container wall as may cause the wall to break down. It has also been suggested in the prior art that the latch mounting member or bracket be welded to the container. Welding generally has not proved to be satisfactory owing to the fact that the bracket material and the container wall material are dissimilar. The container latch mountings of the prior art are permanent in nature so that the latch assembly cannot readily be replaced.

I have invented a container latch mounting which overcomes the defects of container latch mountings of the type known in the prior art. My mounting effectively secures the latch assembly to the container without the use of bolts or rivets. My container mounting permits the latch assembly to be secured to the container in a very rapid and expeditious manner. My container latch mounting permits the latch assembly to be secured to the container body by a relatively unskilled person. The arrangement of my container latch mounting is such that the action of the latch in drawing the parts of the container together actually increases the force with which the latch is held to the container body.

One object of my invention is to provide a container latch mounting for securing a latch assembly to a container without the use of bolts or rivets or the like passing through the container wall.

Another object of my invention is the provision of a container latch mounting which permits a latch assembly to be secured to a container in a rapid and expeditious manner.

A further object of my invention is to provide a container latch mounting which permits the latch assembly to be insatlled on the container by a relatively unskilled person.

Still another object of my invention is to provide a container latch mounting which is especially suited for use on a pressurized container.

A still further object of my invention is to provide a container latch mounting which permits the latch assembly to be readily removed and replaced.

Yet another object of my invention is to provide a container latch mounting in which the force with which the latch is held on the container is increased when the latch is in latching position.

Other and further objects of my invention will appear from the following description.

In general my invention contemplates the provision of a container latch mounting in which the base of the handle mounting bracket has lips formed along its edges which are adapted to fit under retaining flanges provided at the top of a channel in one of the closure members of the container. I provide my mounting with means for locating the bracket in a position at which both lips are held under the retaining flanges after the base has been slipped into the channel.

In the accompanying drawings which form part of the instant specification and which are to be read in conjunction therewith and in which like reference numerals are used to indicate like parts in the various views:

FIGURE 1 is a perspective view of my container latch mounting with the latch in its latching position.

FIGURE 2 is a sectional view of my container latch mounting with the latch in its latching position.

FIGURE 3 is a side elevation of my container latch mounting illustrating the first step in assembling the latch on the container.

FIGURE 4 is a side elevation of my container latch mounting illustrating an intermediate step in assembling the latch on the container.

FIGURE 5 is a side elevation of my container latch mounting illustrating the final position of the parts when the latch is installed on the container.

Referring now to the drawings a container has a body 10 adapted to receive a lid or cover 12. My latch assembly indicated generally by the reference character 14 has a mounting bracket including a base 16 and ears 18 and 20. The handle 22 of the assembly 14 has sides 24 and 26 which are carried by rivets 28 supported in the ears 18 and 20. The drawhook 30 of the assembly 14 is pivotally supported on the handle 22 by a pin or shaft 32 disposed above and slightly to the right of the rivet 28 in the position of the parts shown in FIGURE 2.

In the latched position of the assembly 14 drawhook 30 engages a keeper flange 36 formed on one member 34 of a pair of peripheral mating closure members 34 and 38. Any suitable means known to the art such, for example, as screws passing from the inside of the members 10 and 12 into the members 34 and 38 can be employed for securing members 34 and 38 to the container body 10 and cover 12. It will readily be appreciated that this can be achieved without driving the screws all the way through members 34 and 38 to form holes which pass from the inside of the container to the outside.

I form the member 38 with a channel 40 extending along the length thereof. Channel 40 has respective retainer lips 42 and 44 extending along the length of the channel and directed inwardly thereof. It can readily be seen that for a reason which will be apparent from the description hereinafter that the lip 44 is directed inwardly of the channel 40 for a greater distance than the lip 42. I provide the base 16 with respective flanges 46 and 48 extending along the edges thereof. In the installed position of the latch assembly 14 flange 46 lies under lip 42 while a portion of the flange 48 rests under lip 44.

I form a groove 50 in the base of the channel 40. The base 16 of the latch mounting bracket has respective resilient tongues 52 and 54 which ride into groove 50 as the assembly 14 moves to its installed position properly to locate the latching assembly 14 on the container. I bend the edge of the flange 48 up to cause it to engage the underside of the latch 44 when the parts are in their installed position to hold the bracket in position.

In assembling the latch 14 on the container I first slide flange 48 all the way under the lip 44. In this position of the parts as shown in FIGURE 3 flange 46 can

be moved down toward the base of channel **40** without interfering with the lip **42**. As this is done as shown in FIGURE 4 the resilient tongues **52** and **54** engage the base of channel **40** and are bent upwardly. The assembly is then slid to the left as viewed in FIGURE 4 to move flange **46** under lip **42** until the tongues **52** and **54** snap into the groove **50**. The assembly **14** is then securely held on the container.

In use of the latch when it is desired to release the lid **12** from the container body **10**, handle **22** is moved in the direction of the arrow A in FIGURE 2. As the handle is moved shaft **32** ultimately moves in the direction of the arrow B until the hook of the latch **30** is out of engagement with the keeper flange **36**. The parts **10** and **12** can then be separated. When the parts are again to be secured to each other the hook of the latch **30** is brought into engagement with flange **36** and handle **22** is moved down toward the container to draw the mating edges of members **34** and **38** together. It will be appreciated that when this occurs a force is exerted tending to move the assembly **14** to the left as viewed in FIGURE 2 thus to hold flange **46** firmly under the lip **42**. That is, the force of the latch is exerted in such a direction as ensures that the base **16** is securely held in position.

It will be seen that I have accomplished the objects of my invention. I have provided a container latch mounting which does not require the use of screws or bolts to hold the latch onto the container. My container mounting permits the latch assembly to be applied to the container in a rapid and expeditious manner. The mounting operation can be accomplished by a relatively unskilled person. My container latch mounting is especially suited for use on a pressurized container. The force exerted by the latch in its latching position urges the parts to a position at which the latch mounting bracket is securely held to the container. My container latch mounting permits the latch assembly to be removed and reinstalled with relative ease.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of my claims. It is further obvious that various changes may be made in details within the scope of my claims without departing from the spirit of my invention. It is, therefore, to be understood that my invention is not to be limited to the specific details shown and described.

Having thus described my invention, what I claim is:

1. In a latch assembly for securing two members, one

of which is provided with a keeper, a container latch mounting comprising a support carried by the other member, said support formed with a channel having sides, lips running along said sides to form a mouth, one of said lips being closer to said keeper, and a latch supporting bracket having a base and having flanges running along said base, the distance from edge to edge of said flanges being less than the distance between said one closer lip and the opposite channel side and greater than the distance across said mouth to permit said bracket to be assembled on said support, said flanges being positioned respectively under said lips.

2. A container latch mounting as in claim **1** in which said lip and said flange remote from said keeper are wider than said lip and said flange closer to said keeper.

3. In a latch assembly for securing two members, one of which is provided with a keeper, a container latch mounting comprising a support carried by the other member, said support formed with a channel having sides, lips running along said sides to form a mouth, one of said lips being closer to said keeper, a latch supporting bracket having a base and having flanges running along said base, the distance from edge to edge of said flanges being less than the distance between said one closer lip and the opposite channel side and greater than the distance across said mouth to permit said bracket to be assembled on said support, and resilient locating means for positioning said flanges respectively under said lips.

4. A container latch mounting as in claim **3** in which said resilient locating means comprises a groove extending along the bottom of said channel and a resilient tongue on said base extending into said groove.

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