June 3, 1952 C. W. CHENEY 2,599,372

FASTENING FOR CONTAINERS, CASES, BAGS, AND THE LIKE

Filed March 31, 1950

FIG. 1.

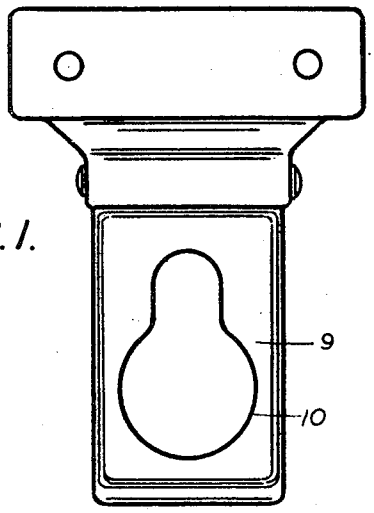


FIG. 2.

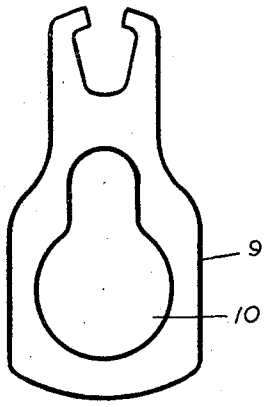


FIG. 3.

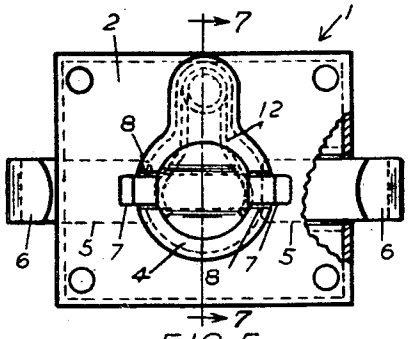


FIG. 4.

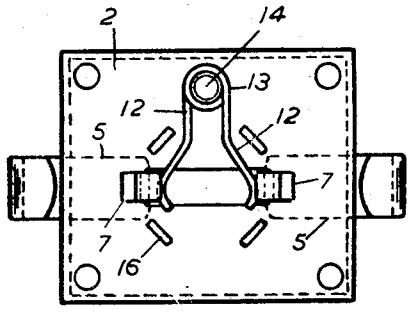


FIG. 5.

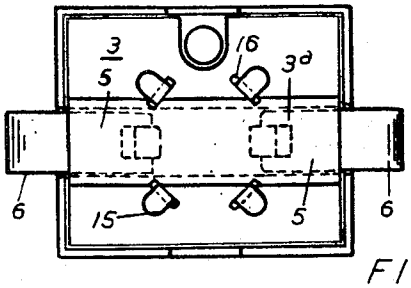


FIG. 6.

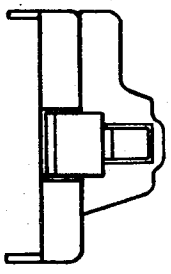


FIG. 7.

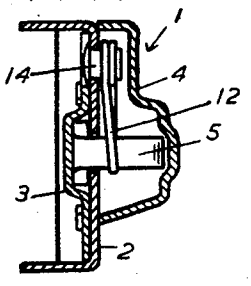
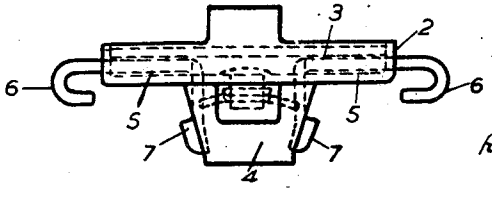


FIG. 8



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FASTENING FOR CONTAINERS, CASES, BAGS, AND THE LIKE

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3 Claims. (Cl. 292—42)

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This invention has reference to fastenings for containers, cases, bags and the like (hereinafter referred to as "bags") of the kind comprising a catch member having a boss fixed on the front of its casing by clinchings and a slotted hasp member adapted to engage detachably said boss, said catch member having a pair of spring loaded rectilineally movable catches extending through openings in the boss and slidably supported within the casing and adapted for manual operation to release the hasp member, and to snap engage the slotted hasp member from the spring loading for fastening the hasp member to the catch member.

In the engaged position of the members, especially when a bag is full to capacity, the hasp is in a state of tension and the clinched-on boss connection to the casing has to stand the stress consequent upon said tension. There are certain disadvantages with present constructions of such fastenings in that under fastening stress the clinched-on boss is found to become disconnected from the catch member because the boss is connected to the front plate only by two clinched-over lugs either of which can be loosened by bag stresses. A W-shaped flat spring, located between front and back plates of the catch member, for loading the manually operated catches forms an unstable element during mass assembly, and is inconvenient since it is found that such spring requires considerable space within the casing and frequently flies off or becomes disarranged, causing dislocation in production and adding time and trouble in mass manufacture of the member.

An object of the invention is to provide a simple spring loading arrangement for the said catches and to enable the boss to be more effectively secured to the catch member than was possible heretofore.

Another object is to simplify the mass production and assembly of catch members.

To this end, the catch member of fastenings of the kind referred to and according to the present invention has a double armed spring disposed externally on the casing to operate on the catches this spring being preferably coiled at an intermediate position of its arms and engaged with a pin anchorage on the front plate.

This spring is enclosed by the boss, and several lugs on the latter pass through slits in the abutting front and back plates of the casing and are clinched over, so that the front plate and the back plate, with the catch mechanism interposed between them, are secured together by the boss lugs.

Conveniently, the boss is provided with four clinching lugs engaging coincident slits in the front and back plates of the catch member, and clinched against the rear face of the back plate,

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these lugs being arranged in different directions to resist hasp stresses tending to disconnect the boss.

According to an embodiment of the invention, the boss consists of a hollow sheet metal pressing, having four clinching lugs and, adapted to project forwardly from the face of the front plate of the catch casing, this boss having opposite openings in its side walls for reception of a pair of spring-loaded catch hooks at the inner ends of slidable pressure members located within the casing and having manually operated finger pieces extending externally therefrom.

A V-shaped wire spring comprising two limbs converging into a series of concentric coils, is anchored in inverted disposition by said coils engaging a fixed pin on the front plate of the catch member, so that said limbs co-act directly in the plane of the opposite catch hooks, extending through a slot in the front plate and exert pressure thereon in the direction of their slot positions.

This arrangement of spring is very easy to assemble to the catch member, and as it is not hidden from view between the front and back plates as obtained heretofore and to thereby require a working space within the casing, an assembler can readily observe and ensure that the spring is correctly engaging the catches after the casing and the catches have been assembled and before the boss is placed over the spring and united with the combined front and back plates such uniting very firmly securing the boss to the casing.

In the accompanying drawing, an embodiment of the invention is illustrated by way of example:

Fig. 1 is an elevation of a hinged hasp member.

Fig. 2 is an elevation of a hasp member for a sliding clasp fastener.

Fig. 3 is an elevation of the catch member.

Fig. 4 is an elevation of the catch member with the boss removed.

Fig. 5 is a rear view of Fig. 3.

Fig. 6 is a side view of Fig. 3.

Fig. 7 is a vertical section of Fig. 3 on line A—A.

Fig. 8 is a topside plan of Fig. 3.

In the drawing, the catch member 1 comprises a front plate 2, a back plate 3, a hollow boss 4 on the face of the front plate 2 and a pair of aligned spring-loaded catches 5 movable rectilineally in opposite directions in a channel 3a in the back plate 3, these catches having manually operable outer ends 6 and catch hooks 7 at their inner ends, projecting through openings 8 in the boss 4. The hasp member 9 has a slot 10 conforming to the shape of the boss 4 so that in the engaged position of the hasp the said catch hooks 7 can snap engage over the slotted hasp and hold it securely to the catch member.

The catches 5 are loaded immediately at the back of the catch hooks 7 by a double armed approximately V-shaped spring comprising arms 12 coiled at 13 intermediate the ends of the arms, the coiled part 13 being mounted on a riveted anchorage pin 14 on the face of the front plate 2. This spring 12, 13, which replaces a W-shaped spring used in the past and arranged between the front and back plates 2, 3, is a very simple elastic device for the purpose and makes for the assembly of catch members in a much easier and expeditious manner because it is visible on the face of the front plate and can be manipulated easily by an assembler who can readily observe and ensure that the arms 12 of the spring are correctly engaging the catch hooks 7 before the boss 4, which covers the spring, is placed in position. The back of the boss 4 is provided with four clinching lugs 15 and the front plate 2 and back plate 3 abut with corresponding slits 16 to receive the lugs which are clinched over the back plate, thus securing the plates and the boss strongly to both plates together and localising the catches in shaped spaces between the plates 2, 3.

It was not possible according to the old arrangement using a W-shaped spring, to employ more than two security lugs because the four limbs of the spring occupied a substantial space between the front and back plates and, if an attempt was made to use several clinching lugs some of them were found to foul some of the said limbs. The spring being external allows of the front and back plates to abut where the clinchings take place, so that double thickness metal of the casing can be used to secure the boss.

Constructionally the catch hooks normally project from the sides of the boss in line with the manually operated pressure members which project from the sides of the casing, inward pressure of said member simultaneously releasing the hasp.

Key locking mechanism, if such is provided, is preferably arranged on the casing remote from the boss.

What I claim is:

1. In fastenings of the kind described, a catch member comprising a casing formed of front and back plates rigidly connected and provided externally upon its front plate with a fixed hollow boss, having aligned openings therein, clinched onto said casing by clinchings which pass through abutting parts of both front and back plates, said boss being adapted for the engagement thereof by a hasp and a pair of aligned catches slidable within channels of the back plate and through said openings in the boss and extending as hooks one on each side of the boss and as outer ends through openings in each side of the casing, and a spring having two arms operating against the catches and which is disposed and concealed, within the hollow boss, substantially as described.

2. A catch member according to claim 1, and in which the arms of the spring are joined by a resilient coil used to anchor the spring to a peg fixed to the front plate of the casing substantially as described.

3. A catch member according to claim 1, and in which the arms of the spring operate against the catches immediately adjacent the catch hooks and supported against the face of the front plate of the casing substantially as described.

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