June 5, 1951 J. SHAW ET AL 2,556,113

FASTENING DEVICE FOR BOXES, CRATES AND THE LIKE

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Fig. 1.

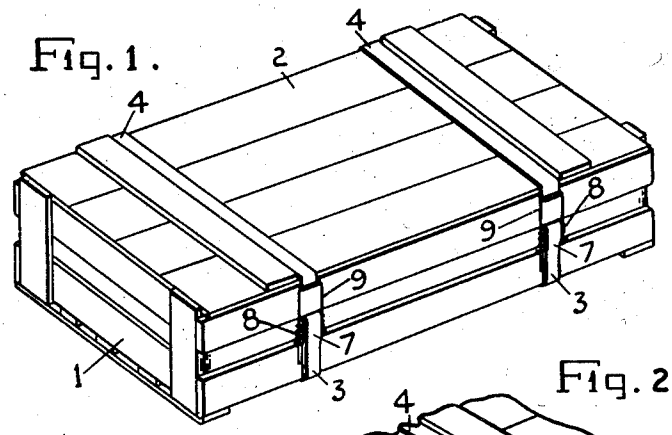


Fig. 2.

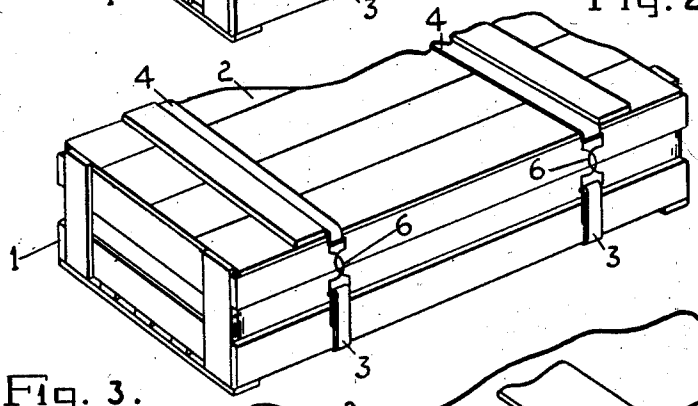
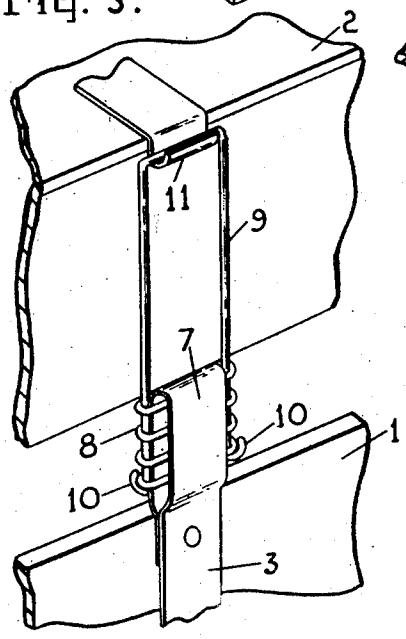


Fig. 3.



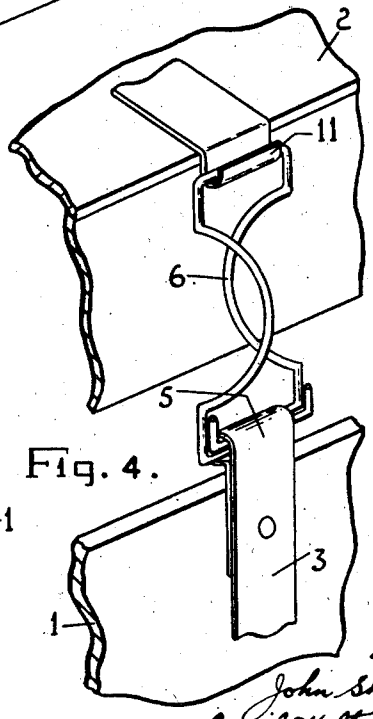


Fig. 4.

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UNITED STATES PATENT OFFICE

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FASTENING DEVICE FOR BOXES, CRATES, AND THE LIKE

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4 Claims. (Cl. 292—246)

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This invention relates to fastening devices for crates, boxes or like containers, which devices embrace the containers and serve to secure a lid or similar removable part thereon.

When containers are furnished with removable lids or similar parts it is customary to nail or screw such parts in position when the container is of wood, or hinge the part in position and furnish it with a lock or some other form of fastening. To make wooden and like containers secure it is often found necessary to fasten metal bands around the container to secure the parts and reinforce the container.

The object of this invention is to provide a simple form of fastening device for containers having removable lids or parts.

Accordingly a fastening device for containers comprises a two-part metallic or other band or strip of which one part embraces the body of the container and the other fits over the lid (or removable member) thereof, the two parts of the band being joined at one end by a loop, hinge or other anchorage device, and by a tensioned fastening loop element or its equivalent at the other end capable of detachment from one of the parts. The fastening loop element may be mounted resiliently on the end of one part and engage a hook on the end of the other part.

The fastening device may comprise two bands of which one secured to one part of a container is hooked at each end and the other secured to the other part of the container is furnished with an anchorage loop (or its equivalent) at one end and a fastening loop (or its equivalent) mounted through spring means at the other end to afford relative movement between the two parts of the device. Each of the bands or strips may be secured by nails or screws or other means to its own particular part of the container. Also hooks may replace the loops.

Referring now to the accompanying drawing in which one embodiment of the invention is shown:

Fig. 1 is a front perspective view of a container with this invention applied thereto;

Fig. 2 is a rear perspective view of the fastened container;

Fig. 3 is an enlarged detail perspective view of a front fastener; and

Fig. 4 is an enlarged detail perspective view of a rear fastener.

In the particular embodiment of this invention shown for wooden boxes or crates 1 having a removable lid 2, two (one or more may be used) fastening devices are provided to embrace a box and lid and secure the latter firmly in position.

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Each fastening device comprises two bands 3, 4 (or strips) of metal of which the band 3 is adapted to be secured by nails or screws or other means to the body of the container and the other band 4 in a similar manner to the lid. The first part is turned back at one end to form a small eye 5 which forms a hinge for an anchorage loop 6 of metallic wire or the like. Said loop if made of spring or similar wire in the form shown provides a limited amount of resilience. Thus any longitudinal tension causes a sufficient amount of temporary deformation to elongate its overall length and on release of the tension the loop will return to its normal formation. The eye is maintained by turning the band back far enough for a nail or screw to be driven through the doubled band into the box or other container. Another eye 7 is formed at the opposite end of this band and this can also be retained in shape in a similar manner as shown. In this case the eye is of elongated formation and a coiled spring 8 is slipped thereinto before the band is secured in position. This coiled spring is of substantially oval or flat loop formation so as to lie snugly against the box in use. A fastening loop 9 is then secured to the said spring and this loop may also be of metallic wire with its two arms fitting down within the spring and then being bent back at each end 10 to hook round the inner or lower coil of this spring. Thus the ends of said loop will be anchored to one end of the spring and the other end of the spring will bear against the outer end of the elongated eye of the band so that any outward pull on the loop in the plane of the band will be transmitted to the latter through the spring and relative movement afforded between the two parts. The other band 4 of the fastening device comprises a simple metallic band (or strip) which is turned down at each end against the edges of the lid and then backwardly to form two small open hooks 11.

A container having devices of the above type simply requires the lid to be placed in position and the pivoted anchorage loops 6 engaged with the adjacent hooks 11 of the bands 4 on the lid. The spring mounted fastening loops 9 are then pulled against the action of their springs 8 and slipped over the adjacent hooks 11 of the lid bands. To facilitate this engagement the said loops may be engaged by a hook or other tool held in the hand of the person securing the lids. This device not only provides a simple method of fastening the lid in position without fear of damage but it enables the lid to be removed again without damage in a very easy manner. At the

same time each device forms a reinforcing band around the whole of the container when secured in position. Furthermore, in some cases where lids cannot be secured firmly down in position during the initial stage, e. g., when the contents are perishable goods such as fish, where ice is used as a packing and preserving medium, the spring mountings and springy loops 6 included in the device will compensate for any settling or reduction in the contents of the container during transit and storage. Thus the lid will always be held securely in position and adapt itself automatically to any change in the bulk of the contents.

The term band or strip as used herein is intended to include any equivalent, such as an elongated loop of metallic or other wire, or two short bands instead of each long band 3 or 4. Also both the anchorage and fastening loops (or other devices) may be of the spring mounted type 9 or the springy type 6.

We claim:

1. A band type fastener for a lidded container including a first band member extending across and over the sides of the lid of the container, a second band member extending under the bottom and up along the sides of the container, one of said band members having a hook formed at each end thereof, the other of said band members having an eye formed at each end thereof spaced from said hooks when the lid is positioned on the container, a resiliently extensible looped connecting member carried by each of said eyes and engageable with said hooks, at least one of said eyes being elongated, a compression spring mounted in the elongated eye and one of the looped connecting members having end portions anchored to said compression spring and a looped portion engageable with one of said hooks to secure the lid resiliently on the container.

2. A fastener according to claim 1 in which the compression spring is of substantially flat loop formation.

3. A fastener according to claim 1 in which the ends of the looped connecting member extend along opposite sides of the elongated eye through the coils of the spring and are hooked around the end coil thereof.

4. A fastener according to claim 1 in which the resiliently extensible connecting member carried by the second eye of the second band member comprises a length of spring wire bent upon itself to form a central loop and arcuately shaped portions extending from the loop terminating in inturned ends extending through said second eye to mount the same thereon.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
430,219	Reeves	June 17, 1890
492,470	Osgood	Feb. 28, 1893
994,427	Ross	June 6, 1911