Dec. 22, 1942. G. D. WIEPERT 2,306,099

PIVOTAL HANDLE STRUCTURE FOR CHESTS AND THE LIKE

Filed July 16, 1942

Fig. 1.

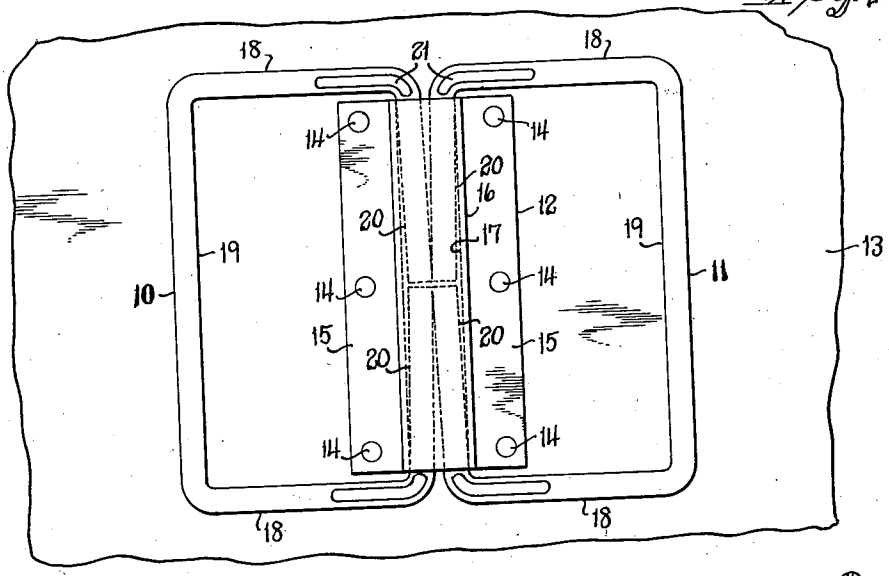


Fig. 2.

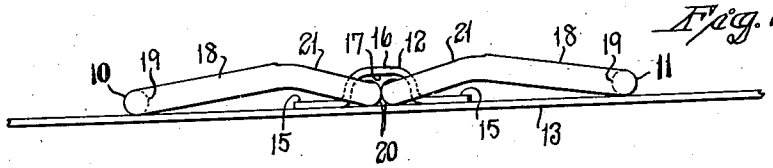


Fig. 3.

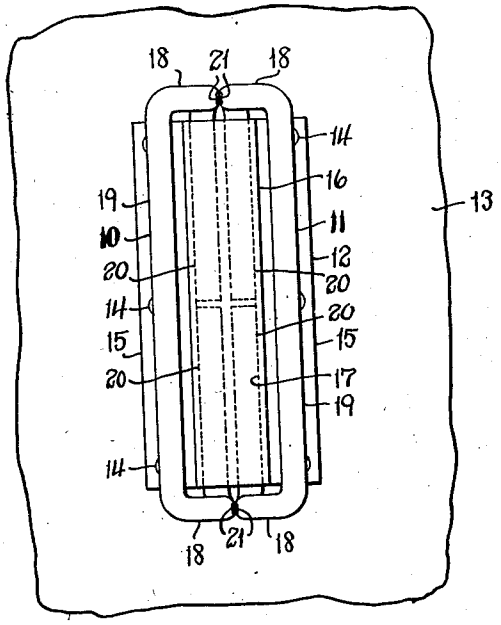
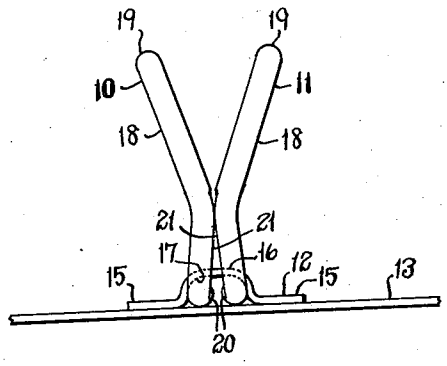


Fig. 4.



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PIVOTAL HANDLE STRUCTURE FOR CHESTS AND THE LIKE

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2 Claims. (Cl. 16—126)

The present invention relates to improvements in handle-structures and relates more particularly to improvements in pivotal handle-structures of the type especially well suited for use on boxes and chests, though available for use as handles in other situations.

One of the objects of the present invention is to provide a superior pivotal handle-structure of the character referred to, which may be produced at a low cost for manufacture.

Another object of the present invention is to provide a superior pivotal handle-structure which provides a maximum degree of convenience and comfort for the human hand.

With the above and other objects in view, as will appear to those skilled in the art from the present disclosure, this invention includes all features in the said disclosure which are novel over the prior art.

In the accompanying drawing, in which certain modes of carrying out the present invention are shown for illustrative purposes:

Fig. 1 is a top or plan view of a pivotal handle-structure embodying the present invention and shown in conjunction with a fragment of a box and with the complemental handle-loops in their retired or inactive positions;

Fig. 2 is an edge view thereof;

Fig. 3 is a top or plan view corresponding to Fig. 1 but showing the complemental handle-loops swung upwardly into position for use; and

Fig. 4 is an edge view thereof.

The particular pivotal handle-structure herein chosen for purposes of illustrating one form of the present invention comprises two complemental handle-loops respectively generally designated by the reference characters **10** and **11**. The handle-structure also includes an anchoring-plate **12** which may be conveniently formed of sheet metal for application to the outer surface of a box or chest **13**. In the instance shown, the box **13** is also formed of sheet metal and the anchoring-plate **12** is secured thereto by six (more or less) spot welds **14**, though any other suitable fastening means may be employed.

The anchoring-plate **12** is formed on each of its respective opposite sides with one of two flanges **15—15** on which the spot welds **14** before referred to, are located. Intermediate its flanges **15—15** the anchoring-plate **12** is upwardly bowed to provide a channel-portion **16** extending longitudinally and providing in conjunction with the portion of the box **13** which it bridges, a tubular socket **17** for purposes as will hereinafter appear.

Each of the complemental handle-loops **10** and **11** may be most conveniently bent up from heavy steel wire or rod so that each of the said handle-loops comprises complemental side-arms **18—18** integrally connected at their outer end by a grip-bar **19** which extends parallel with the anchoring-plate **12** and hence substantially perpendicular with respect to the side-arms **18—18**. At its inner end, each side-arm **18** of a given handle-loop **10** or **11** is formed with an integral inwardly-extending anchoring-finger **20** fitting in the adjacent end of the tubular socket **17** beneath the channel-portion **16** of the anchoring-plate **12**, as is especially well shown in Figs. 1 and 3. Each of the two anchoring-fingers **20** of a given one of the handle-loop **10** or **11** extends toward the other anchoring-finger of the same handle-loop and extends alongside of the similar anchoring-finger of the other or complemental handle-loop.

It will be noted by reference to Figs. 2 and 4 in particular, that the two side-arms **18—18** of each of the handle-loops **10** and **11** are arched or bowed upwardly or toward the similar arms of the other handle-loop. Thus, when the two handle-loops **10** and **11** are raised into their useful positions, the arched portions of the said side-bars **18** will engage with the adjacent side-bar of the other handle-loop and serve to hold the grip-bars **19** of each of the said handle-loops in laterally-spaced-apart position, as shown in Figs. 3 and 4. Preferably, also, each handle-loop is flattened as at **21—21** to provide a stabilized engagement between the handle-loops when the same are raised to the position shown in Figs. 3 and 4.

Preferably, the width of the tubular socket **17** and hence of the channel-portion **16** of the anchoring-plate **12** is sufficient to permit the free turning movement of the anchoring-fingers **20** therein and to permit the said anchoring-fingers to spread laterally away from each other when the handle-loops are raised in the positions in which they are shown in Figs. 3 and 4.

When the handle-loops **10** and **11** are raised into operative positions as shown in Figs. 3 and 4, the two grip-bars **19** remain in spaced-apart position as above described, and even though made of relatively-slender wire or its equivalent, the handle will cause much less irritation to the hand of the user than would be the case were the two grip-bars **19—19** permitted to come together and thus localize the weight of the box or chest **13** on one portion of the fingers or hand of the user.

The invention may be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. A pivotal handle-structure for boxes, chests, and the like, comprising: two complemental handle-loops pivotally mounted adjacent each other and each having a grip-bar and two side-arms, each of the two side-arms of a given handle-loop being provided at its inner end with an anchoring-finger extending toward and in alignment with the anchoring-finger of the other of said side-arms, each of the two side-arms of both handle-loops being bowed or arched toward the adjacent side-arm of the complemental handle-loop to laterally hold apart the respective grip-bars of the two handle-loops; and means for pivotally connecting the two anchoring-fingers of each handle-loop to a chest or the like.

2. A pivotal handle-structure for boxes, chests, and the like, comprising: two complemental handle-loops pivotally mounted adjacent each other and each having a grip-bar and two side-arms, each of the two side-arms of a given handle-loop being provided at its inner end with an anchoring-finger extending toward and in alignment with the anchoring-finger of the other of said side-arms, each of the two side-arms of both handle-loops being bowed or arched toward the adjacent side-arm of the complemental handle-loop to laterally hold apart the respective grip-bars of the two handle-loops; and an anchoring-plate anched intermediate its respective opposite sides to provide a tubular socket receiving the two complemental anchoring-fingers of each of the complemental handle-loops.

GEORGE DOUGLAS WIEPERT.