March 1, 1938. F. OLSTAD 2,109,927

BOX LIFTER

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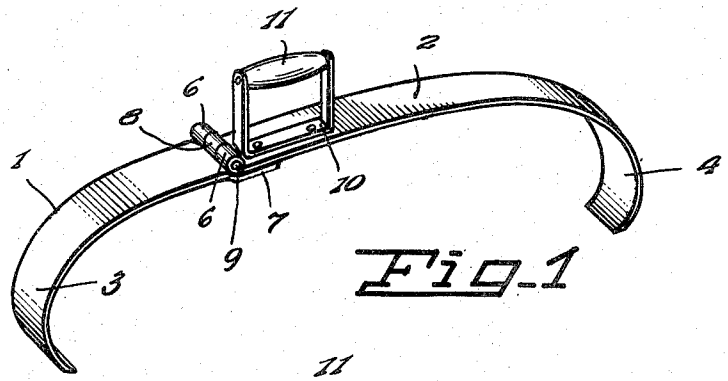


Fig. 1

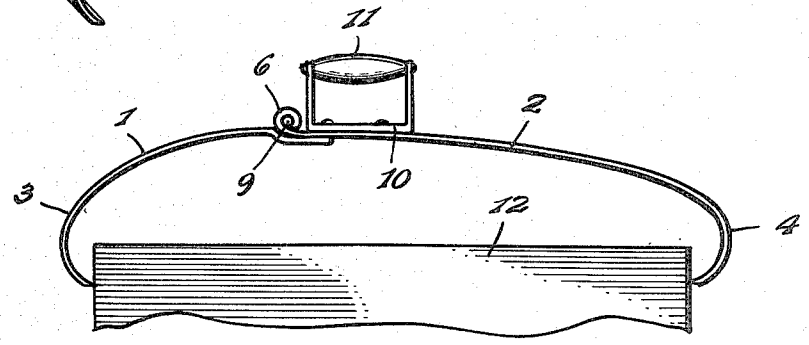


Fig. 2.

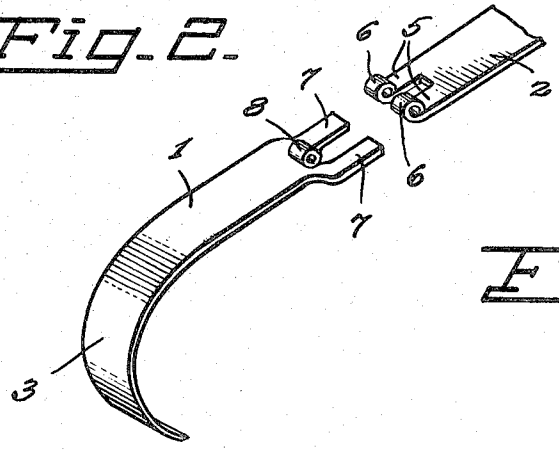


Fig. 3

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BOX LIFTER

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3 Claims. (Cl. 294—104)

This invention relates to a box carrier and one object of the invention is to provide a device of this character of such construction that a heavy box, such as a box having supplies packed therein, may be easily lifted and carried from one place to another.

Another object of the invention is to so form the box carrier that when it is in use and its jaws engaged with a box, they will firmly grip the box from opposite ends thereof and permit the box to be lifted and carried without danger of the box slipping from between the jaws.

Another object of the invention is to provide a box carrier consisting of pivotally connected members so formed and so proportioned that when they are engaged with a box, the box will be first moved upwardly from one end as it is lifted and the lower end of the box first make contact with the ground or another box upon which it is to be stacked as it is set down. This permits the boxes to be properly set one upon another and prevents jolts which would be liable to bruise the fruit as the boxes are set down.

Another object of the invention is to provide a box carrier having its companion members pivoted to each other and one so formed that while it may be pivotally moved, its downward swinging movement will be limited and this jaw prevented from swinging downwardly beyond a position in which it is in substantially longitudinal alinement with the other member.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a perspective view of the box carrier.

Figure 2 is a side elevation showing the improved box carrier engaged with a box to be carried.

Figure 3 is a perspective view of the relatively short member and a portion of the relatively long member forming the carrier.

This improved box carrier consists of companion members 1 and 2, each of which is formed from a strip of resilient metal such as steel so that the carrier will have sufficient resiliency to permit a box to be firmly gripped and easily carried and also cause the beveled free ends of the members to retain a sharp edge. The strip from which the member 1 is formed is of a great deal less length than the strip from which the strip 2 is formed and each has its outer end portion curved downwardly and inwardly to provide jaws 3 and 4 terminating in straight cut sharpened edges. The inner end of the member 2 is cut longitudinally to provide tongues 5 which are rolled upwardly back upon themselves to form bearings or hinge ears 6 and the strip or member 1 also has its inner end cut to provide tongues 7 and an intermediate tongue which is rolled back upon itself to form a hinge ear or bearing 8. A pin 9 passes through the ears 6 and 8 to pivotally connect the two members 1 and 2 and attention is called to the fact that while the two members may be swung upwardly quite freely, the tongues 7 will serve to prevent the two members from swinging downwardly beyond a horizontal position by engaging the lower face of the member 2 under the tongues 5. A handle 10 is carried by the member 2 at the inner end thereof and consists of a U-shaped metal yoke which is riveted upon the member 2 intermediate the width thereof with its arms projecting upwardly and carrying a hand grip 11.

When this box carrier is in use, it is disposed over the box 12 longitudinally thereof with the jaws 3 and 4 engaging end faces of the box. The handle is then grasped and as upward pull is exerted to lift the box, the resiliency of the strips from which the two members are formed will cause the jaws to tightly grip the box and the sharpened edges of the jaws will bite into the end faces of the box. The fact that the member 2 is longer than the member 1 causes the handle to be disposed in offset relation to the center of the box and towards the front end of the box. Therefore, the front end of the box engaged by the shorter member 1 will be lifted first and the box will extend rearwardly at a downward incline as it is carried from one place to another. Upon reaching the place where the box is to be set down, it is lowered and the rear end of the box will first make contact with the ground or another box upon which it is to be stacked. The box may, therefore, be easily disposed substantially exactly over another box upon which it is to be stacked and the front end of the box then lowered into place. The box may, therefore, be set down without being jolted and fruit in the box will not be bruised. It should also be noted that since the two members are formed of steel or other resilient metal and the tongues 7 prevent them from swinging downwardly beyond a horizontal position, they will be permitted to have sufficient give to absorb shocks in a vertical direction as the box is carried over rough ground and a person's arm will be relieved of strain and also the sharpened ends of the jaws caused to firmly grip the end walls of the box and prevent it from slipping downwardly from between the jaws. While the device has been called a box carrier, it may be used for carrying any heavy article.

Having thus described the invention, what is claimed as new is:

1. A box carrier comprising companion members formed from flat strips of resilient material and having their outer end portions bent downwardly and inwardly to form jaws, inner ends of said members being pivoted to each other and one member having a portion extending under the inner end portion of the other member to limit downward pivotal movement of the members relative to each other, and a handle carried by and extending upwardly from the inner end portion of one member.

2. A box carrier comprising companion members formed from strips of resilient material and having their outer end portions curved downwardly and inwardly to form jaws, one member being of appreciably greater length than the other, said members having their inner ends pivotally connected, a handle carried by the inner end portion of the longer member, and means to limit downward pivotal movement of the members relative to each other.

3. A box carrier comprising companion members formed from flat strips of resilient material, said strips having their outer end portions curved downwardly and inwardly to form jaws sharpened at their ends, one strip being of appreciably greater length than the other, the inner end of the longer member being provided with hinge ears spaced transversely from each other, the inner end of the shorter member being provided with a hinge ear intermediate its width pivotally mounted between the hinge ears of the longer member to pivotally connect the members, the shorter member having its inner end formed with tongues at opposite sides of the hinge ear extending longitudinally of the member and engaging under the inner end portion of the longer member and constituting means for limiting downward pivotal movement of the members relative to each other, and a handle carried by the inner end portion of the longer member and extending upwardly therefrom.

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