Oct. 16, 1928. 1,687,552

H. FASSBENDER

BOX LIFTER

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Fig. 1.

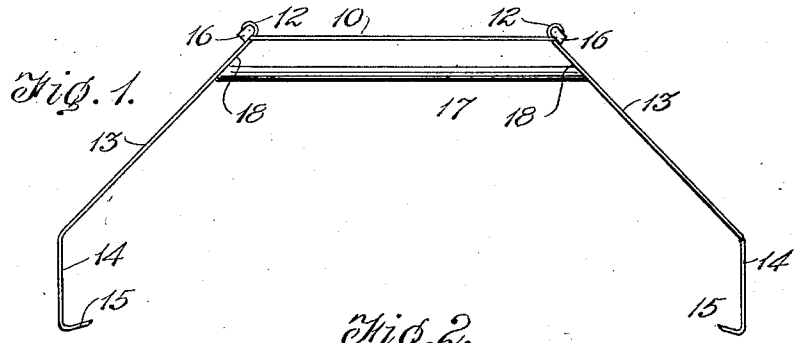


Fig. 2.

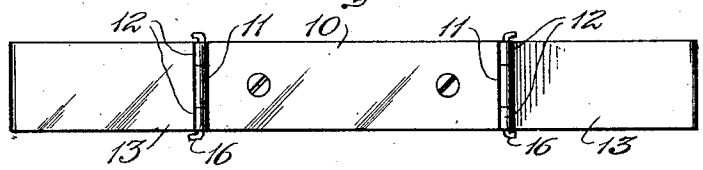


Fig. 3.

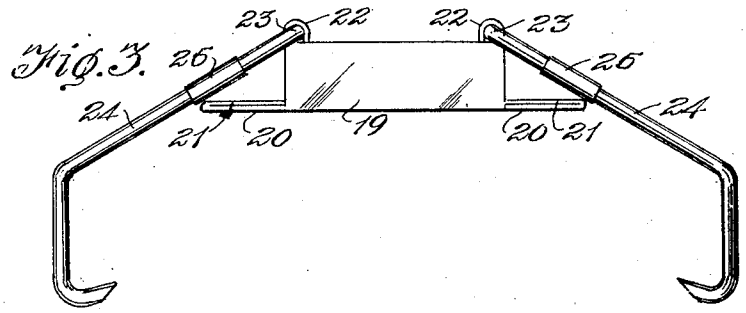


Fig. 4.

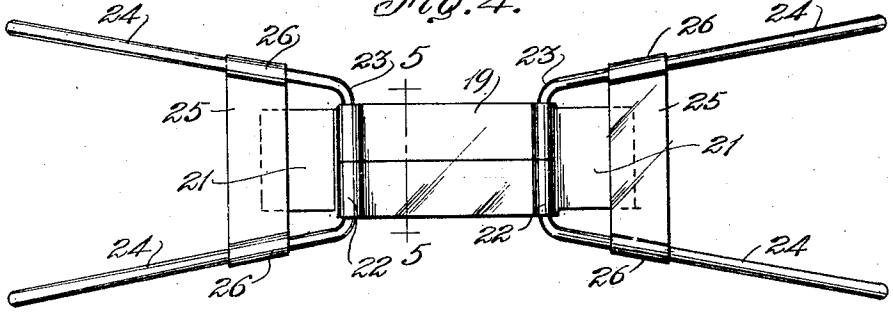
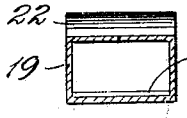


Fig. 5.



INVENTOR.
Henry Fassbender,
BY L. N. Wills
ATTORNEY.

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H. FASSBENDER

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Fig. 6.

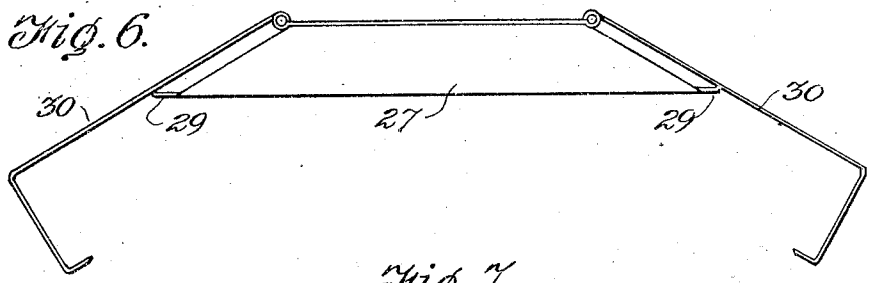


Fig. 7.

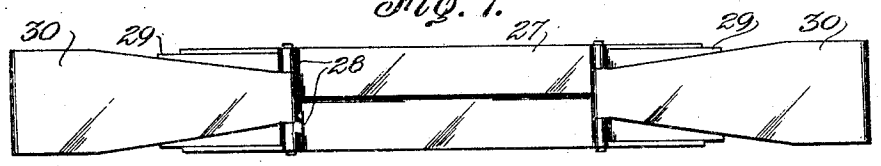


Fig. 8.

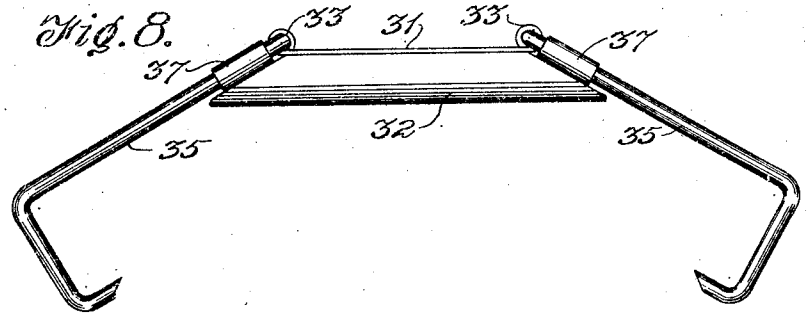
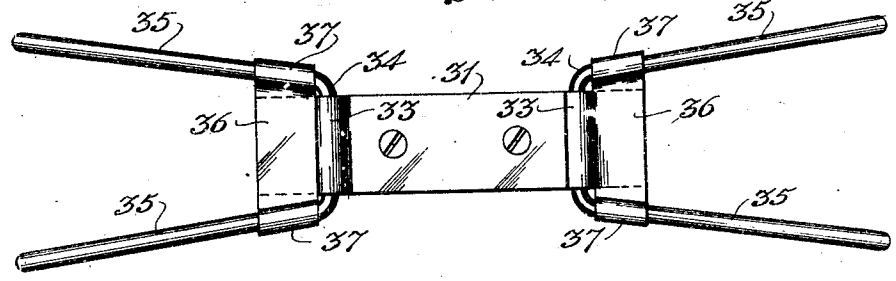


Fig. 9.



INVENTOR.
Henry Fassbender,
BY L. N. Gillis
ATTORNEY.

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UNITED STATES PATENT OFFICE.

HENRY FASSBENDER, OF COUNCIL, IDAHO.

BOX LIFTER.

Application filed April 29, 1927. Serial No. 187,640.

This invention relates to improvements in box lifters of the type shown in my prior Patent 1,565,072.

One important object of the invention is to so improve the box lifter shown in my prior patent that suitable stop members will be provided for limiting the downward movement of the end members of the lifter.

A second important object of the invention is to provide an improved lifter of this character wherein the gripping members of the lifter may be made of sheet metal or wire and hinged directly to the middle or handle portion.

With the above and other objects in view as will be hereinafter apparent, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and specifically claimed.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:

Figure 1 is a side elevation of one form of the lifter employing iron or steel tongs or gripping members and a sheet metal reenforced wooden handle.

Figure 2 is a plan view of the form shown in Figure 1.

Figure 3 is a second form having a sheet metal handle and steel or iron tongs or gripping members, the same being shown in side elevation.

Figure 4 is a plan view of the form shown in Figure 3 with the tongs spread out to their furthest extent.

Figure 5 is a detail section on the line 5—5 of Figure 4 showing only the sheet metal handle.

Figure 6 is a side elevation of a third modification in which the handle is formed of sheet metal and the tongs of iron or steel.

Figure 7 is a plan view of the form shown in Figure 6.

Figure 8 is a side elevation of a fourth form employing steel or iron tongs and a wood reenforced sheet metal handle.

Figure 9 is a plan view of the form shown in Figure 8 with the tongs spread to their fullest extent.

In the form shown in Figure 1 the central portion of the device or handle portion consists of a metallic plate 10 having reduced ends rolled to form ears 11 on each side of which is engaged the rolled ear 12 of a sheet metal tong or gripping member having a main portion 13 and an outer portion 14 arranged at an obtuse angle to the main portion and provided with a toe 15 at its outer end acutely angled with respect to the portion 14. A hinge pintle 16 connects each grip or tong to the central portion 10. Screwed to the underside of the central member is a reenforcement 17 of wood or the like and this reenforcement has beveled end portions 18 so that the tong members rest, in normal position, on these bevels and are thereby supported to limit their downward movement.

In the form shown in Figures 3, 4 and 5 the handle is made from sheet metal bent to form a box 19, the floor of which projects from the body of the box at each end as at 20 and is doubled back as at 21 to form a reenforcement. The upper wall of the box is extended beyond the body and bent to form eyes 22 receiving the bight portions 23 of wire tong members 24 shaped similarly to the tongs in the first case, the legs of these members being spread apart. Extending between the legs in a plate 25 rolled at its ends over the legs as at 26 and this plate is so positioned, as shown in Figure 3, that the extensions 20 form stops by engagement with the plate 25 to limit downward movement of the tong members.

In the form shown in Figures 6 and 7 the body, like the last, is made of sheet metal bent to provide a main portion 27 of box form and having its upper wall rolled to provide spaced ears 28 and its lower wall extended at each end as at 29. The tong members are formed of plate metal similar in shape to the tongs in the first form, these tongs being indicated at 30 and, in their lowermost position, the extensions 29 engage beneath the tongs and limit downward movement.

In the form shown in Figures 8 and 9 the construction of the handle is similar to that in Figure 1, there being provided a metallic plate 31 screwed onto a beveled ended wooden reenforcement 32 and having at each end an ear 33. However, in this form the ears 33 receive the bights 34 of wire tong members having legs 35 similar to the members 24. Like those members a plate 36 extends between each pair of legs and has its end rolled

around the legs as at 37, the plate being so positioned that it engages the beveled ends of the portion 32 and limits downward movement of the tong members.

The device is used in a manner similar to the device previously described, the toes engaging the box and one or more of these devices may be used in accordance with the size of the box to be lifted. Obviously, like my former box lifter, the invention is effective as a storage battery lifter.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, therefore, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

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

A lifter of the class described comprising a body member having eyes at its upper end portions and having its ends projecting to form stops, tong members each consisting of a rod passing through a respective eye for pivotal connection to the body and each bent to provide a pair of legs having their extremities forming box gripping toes, and plates extending between the legs of a respective pair and cooperating with the extensions to engage the same and limit downward movement of the legs, said body consisting of a sheet metal tube and the extensions of the body consisting of continuations of the sheet metal of the bottom part of the tube doubled back upon each other for reenforcing the extensions.

In testimony whereof I affix my signature.

HENRY FASSBENDER.