

No. 744,813.

PATENTED NOV. 24, 1903.

W. J. STEWART.

BARREL LIFTER.

APPLICATION FILED JUNE 1, 1903.

NO MODEL.

Fig. 1.

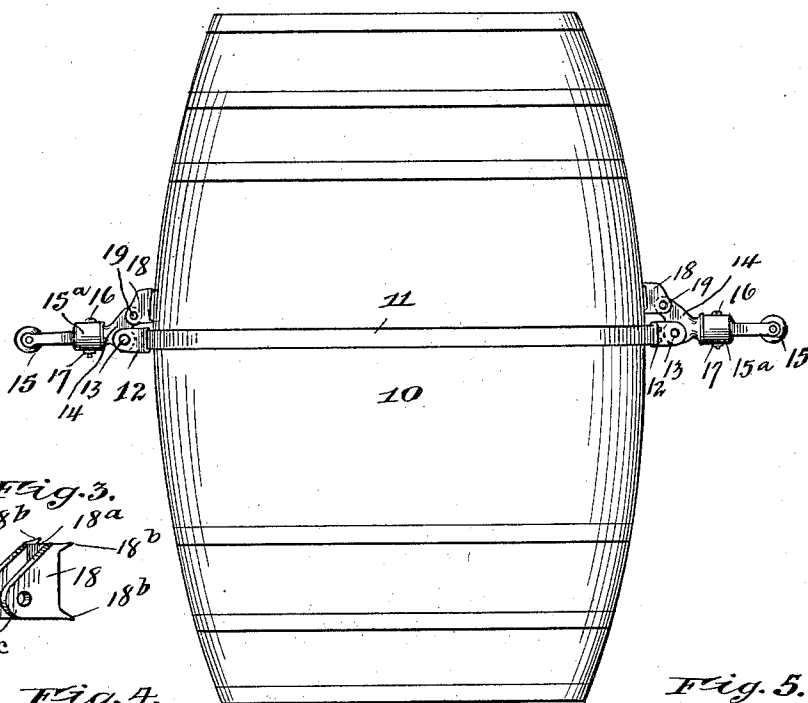


Fig. 3.

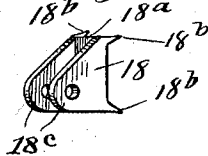


Fig. 4.

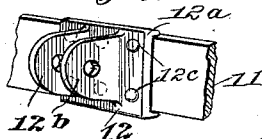


Fig. 2.

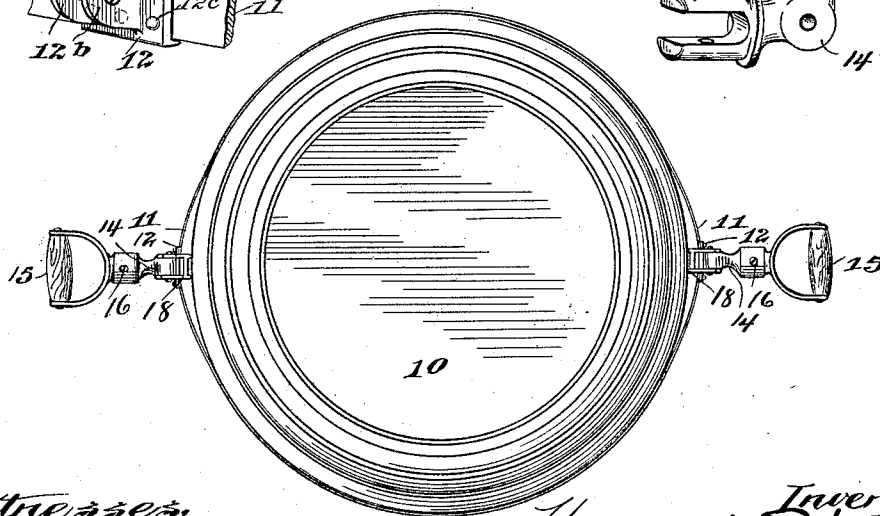
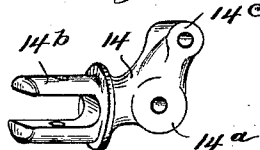


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. STEWART, OF HAMMOND, INDIANA.

BARREL-LIFTER.

SPECIFICATION forming part of Letters Patent No. 744,813, dated November 24, 1903.

Application filed June 1, 1903. Serial No. 159,590. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. STEWART, a citizen of the United States, residing at Hammond, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Barrel-Lifters, of which the following is a specification.

My invention relates to devices for expediting and facilitating the handling of barrels, hogsheads, casks, kegs, and other like receptacles, which when loaded, by reason of their weight and form, frequently present considerable difficulty in respect to the manual manipulation and transferring thereof from place to place; and my invention has for its object to provide a simple, economical, and easily-applied device whereby the manual manipulation of such articles may be facilitated, principally in the way of providing an easily applied and removed device for enabling the operator or operators to obtain a mechanically advantageous hold upon such devices, whereby they may be lifted and carried bodily with the greatest convenience.

To this end my invention consists in a device for facilitating the lifting and manual transportation of such articles, having as its chief constructional characteristic the provision of a flexible hoop or band adapted to engage and coöperate with the external surface of the kegs, barrels, and the like of considerably-varying sizes, in association with a pair of oppositely-disposed handles connected thereto, and a pair of devices to grip or bite into the surface of the keg or barrel so connected to said handles as that a lifting power applied to the latter not only tends to raise the keg or barrel, but through a powerful leverage causes said gripping devices to take a firm hold upon the surface engaged thereby.

My invention in a preferred form is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevational view of a keg or barrel, showing my invention operatively applied thereto. Fig. 2 is a top plan view of the same; and Figs. 3, 4, and 5 are isolated detail views, enlarged, of certain parts of the device.

Referring to the drawings, 10 designates a barrel, cask, hogshead, keg, or any like re-

ceptacle for use in the handling of which my invention has been designed.

11 designates a flexible belt or strap, preferably of sheet metal and of a size to fit down over and somewhat loosely engage the exterior surface of the barrel.

12 designates as an entirety an attachment-plate, preferably in the form of a metal casting, having a flat surface 12^a, Fig. 4, adapted for connection with the band 11 by any suitable means, such as the rivets 12^c, (shown in Fig. 4,) and having a pair of integral apertured lugs 12^b, through which the casting is pivotally connected at 13 to the lower inner end or heel 14^a of a casting 14, Fig. 5. This latter casting has a stem or shank 14^b, adapted to enter the hollow shank 15^a of a handle 15, being secured to the latter by means of a bolt 16 passed through said parts and secured by a nut 17. The member 14 has an upwardly-projecting nose 14^c, which is apertured for pivotal connection with a dog 18. This member of the device, which is shown in detail in Fig. 3, consists of a casting having, preferably, a flat plate 18^a, the four corners of which are formed on its inner surface with inwardly-projecting teeth 18^b, adapted to bite into the surface of the barrel in the manner plainly indicated in Figs. 1 and 2 when pressure is applied thereto through the lifting of the handle. Integral with the plate 18^a, on the back side thereof, are a pair of ears 18^c, apertured for pivotal connection at 19 with the nose 14^c of the member 14.

The lifting device, composed of the elements above described assembled in the manner set forth, is applied to the hoop or band 11 at diametrically opposite points thereon, and the manner of operation is substantially as follows: In lifting and transporting a barrel or keg the band 11 is slipped down over the upper end thereof to approximately its central or widest point, whereupon a lifting effect is simultaneously applied to the handles 15 by two attendants—one on either side in the case of a large and heavy cask, or by a single attendant using both hands in the case of a smaller and lighter cask. By reason of the described pivotal relation of the elements 12, 14, and 18 it will be seen that the member 14, in connection with the handle 15, constitutes a powerful bell-crank lever

when the handle is raised to stretch the band 11, making it snugly engage and hug the barrel, and at the same time to force the dog 18 into gripping or biting engagement with the surface of the barrel, thus preventing the device from slipping up and off the barrel under the weight of the latter.

By reason of the flexibility of the band 11 and of the relative inward and outward play permitted to the pivoted parts 12 and 18 when the handles are raised the device is capable of application to and use in connection with barrels or casks of considerably-varying diameters. Furthermore, its manner of use permits the barrel or cask to be carried bodily in a perfectly upright position, dispensing with all necessity of rolling or trundling the latter, and thus facilitating the handling of receptacles which may be open at their upper ends, as well as of receptacles which are entirely closed and sealed. When the device is to be disengaged, a mere depression of the handles 15 withdraws the dogs and loosens the grip of the band, whereupon the lifter may be readily raised off the barrel.

It is evident that my invention as above described might be varied somewhat in respect to minor details without departing from the principle or substantially varying the mode of operation thereof, and I do not, there-

fore, limit the invention to the precise details shown and described except to the extent indicated in specific claims.

I claim—

1. In a lifting device for the purpose described, the combination with a flexible band adapted to embrace the article to be lifted, of a pair of handles pivotally connected thereto on opposite sides thereof, and a pair of dogs pivotally connected to said handles above the pivotal connections of the band, whereby the raising of the handles stretches the band and simultaneously forces the dogs into biting engagement with the surface of the article engaged, substantially as described.

2. In a barrel-lifter, the combination with a flexible band adapted to embrace the barrel, of a casting or other member having the general form of a bell-crank lever pivotally connected at its heel to said band, a dog pivotally connected to the upwardly-extending arm of said lever and having its inner barrel-engaging surface provided with teeth, and a handle rigidly connected to the horizontal arm of the lever, substantially as described.

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Witnesses:

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