C. E. SWINGLE.

LIFTING DEVICE.

APPLICATION FILED JUNE 9, 1917.

1,264,579.

Patented Apr. 30, 1918.

Fig. 1

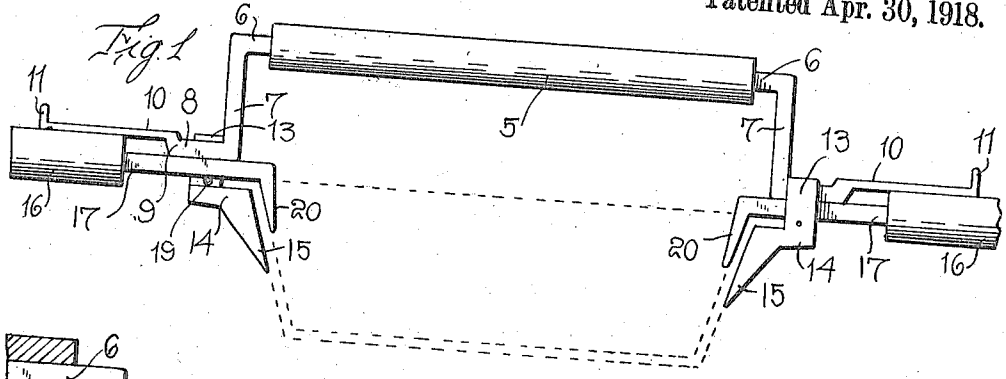


Fig. 2

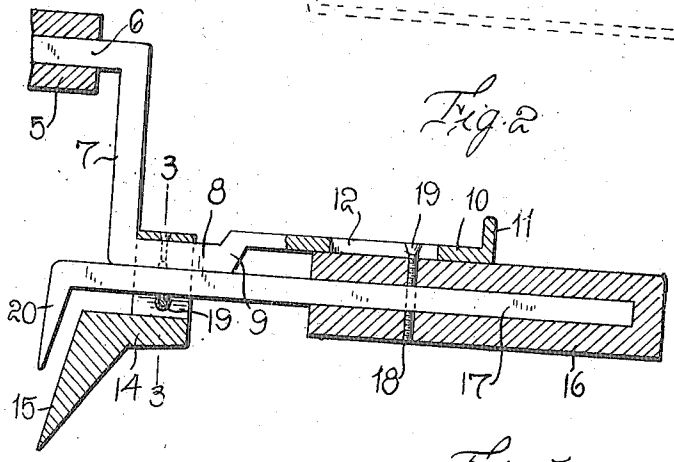


Fig. 3

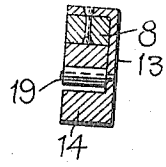


Fig. 4

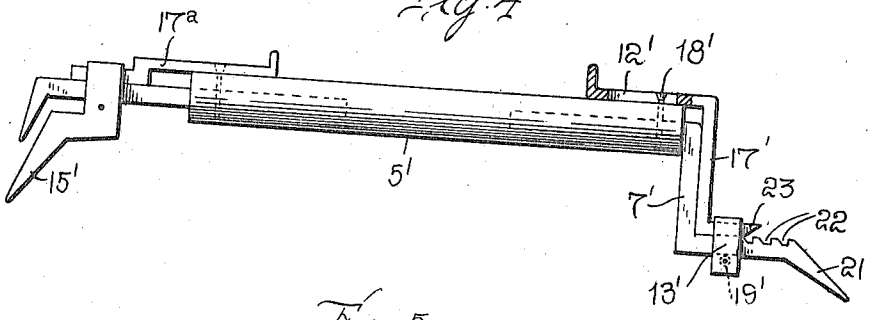
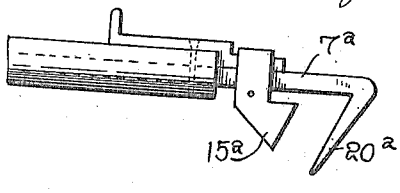


Fig. 5



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LIFTING DEVICE.

1,264,579. Specification of Letters Patent. Patented Apr. 30, 1918.

Application filed June 9, 1917. Serial No. 173,781

To all whom it may concern:

Be it known that I, CHARLES E. SWINGLE, a citizen of the United States, residing at Luzerne, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Lifting Devices, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved lifting device, and has for its primary object to provide a simply constructed and serviceable article for lifting ash pans, stew pots, bread pans, and various other heavy receptacles.

It is another and more particular object of the invention to provide a device for the above purpose, embodying a handle bar, a support engaged in each end of said bar and having a jaw mounted thereon, an additional jaw member, and means for adjusting said additional jaw member with respect to the jaw on the support.

It is a further general object of the invention to provide a device of the above character, consisting of relatively few parts which can be produced at relatively small cost, the device as a whole being exceedingly durable and highly convenient and serviceable in practical use.

With the above and other objects in view, my invention consists in the novel features of construction, combination, and arrangement of parts to be hereinafter more fully described, claimed, and illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation showing a lifting device constructed in accordance with one embodiment of the invention;

Fig. 2 is an enlarged vertical section;

Fig. 3 is a section taken on the line 3—3 of Fig. 2;

Fig. 4 is a side elevation illustrating a slightly modified form of the invention; and

Fig. 5 is a similar view illustrating a further modification.

Referring in detail to the drawing, and more particularly to Figs. 1, 2 and 3 thereof, 5 designates a handle bar preferably cylindrical in form. In each end of this handle bar, one end of a metal rod 6 is suitably secured, said rod being of rectangular form in cross-section and bent into substantially Z-shape to provide a medial portion 7 extending at right angles to the end of the handle bar 5, and a laterally extending end portion 8 which is offset, as indicated at 9, to provide an extension 10 of reduced thickness, terminating in an upwardly projecting lug 11. This reduced extension 10 of the metal bar has a longitudinal slot 12 formed therein for a purpose to be presently stated.

Upon the angular portion 8 of the rod 6, the end of a shank 13 is riveted or otherwise rigidly fixed. The lower end of this shank has a laterally projecting portion 14 which is integrally formed with an obliquely inclined jaw 15.

16 designates an auxiliary, cylindrical handle bar in which one end of a rectangular metal rod 17 is fixed. This handle bar is disposed under the extension 10 on the end of the bar 6, and a bolt 18 is threaded in the bar 17 and extends upwardly through the slot 12, the upper end of said bolt being provided with a conical-shaped head 19, the tapering sides of which are seated against the opposite edges of the slot 12. The rod 17 extends longitudinally beneath the portion 8 of the rod 6 and is movable upon a roller 19 mounted upon one side of the shank 13. The end of the rod 17 terminates in a downwardly projecting, inclined jaw 20 which is disposed in opposed relation to the jaw 15.

From the construction above described, it will be readily understood that in the use of my device, the jaws 15 of the devices at the opposite ends of the handle bar 5 are engaged upon the outer sides of the vertical flange or wall of the pan or other receptacle at diametrically opposite points and the bolts 18 loosened so that the handles 16 and rods 17 may be shifted to tightly engage the jaws 20 against the inner faces of said wall, thereby securely clamping the pan or receptacle wall. The outwardly projecting bead or flange on the upper edge of the receptacle wall rests upon the upper surface of the jaw 15, as clearly indicated in dotted lines in Fig. 1. Thus, it will be seen that the receptacle can be easily carried from place to place, and the device removed by simply shifting the jaws 20 inwardly.

In Fig. 4 of the drawing, I have illustrated a form of the device which is particularly designed for carrying bread pans, pie pans, and the like, in which construction the handle bar 5′ is provided upon one end with the angular rod 7′ having an obliquely disposed end portion 21. At the inner end of this oblique portion in the upper face of the

bar, spaced notches or recesses 22 are formed. An angular rod 17′ is shiftable upon the end of the handle bar 5′ and is provided with a slot 12′ in which the head on the upper end of the threaded bolt 18′ is engaged. The other end of this rod 17′ has a beveled end face 23. This end of the rod 17′ also has an angular guide plate 13′ fixed thereto, which carries an anti-friction roller 19′ engaging the under side of the rod 7′. The device just described is particularly designed for lifting hot pie pans, and removing the same from an oven, and in the use thereof, it will be understood that the angular end 21 of the rod 7′ engages the flaring flange on the pie pan while the bead upon the edge of said flange is seated in one of the notches 22. The rod 17′ is then adjusted so as to tightly engage the beveled end face 23 thereof upon the bead, thereby securely holding the pan when the same is lifted. In Fig. 4, I have illustrated a slightly different construction of the other end of the handle bar. The jaw 15′ is carried by the angular metal rod 17ª which is adjustable upon the end of a handle bar in the same manner as the rod 17′ above described.

In Fig. 5 of the drawing, I have illustrated still another modification which may be employed for lifting pans and vessels of other constructions than those referred to, wherein the adjustable jaw 15ª is adapted for engagement with the outer side of the receptacle wall, while the fixed jaw 20ª on the end of the rod 7ª fixed in the handle bar, engages upon the inner face of the wall. The opposed faces of these jaws are reversely inclined to the inclination of the jaws shown in Fig. 1. The jaw 15ª is adjusted in the same manner as the jaw 15′ shown in Fig. 4 of the drawing. This latter construction of lifter can be advantageously employed for many different kinds of heavy pots, pans, and other articles.

From the foregoing description, taken in connection with the accompanying drawing, the construction, manner of use, and several advantages of the herein described forms of the device will be clearly understood. The several parts referred to are all of simple form and can be produced at relatively small manufacturing cost. The device may be made in various sizes in accordance with the particular purpose for which it is to be used.

While I have herein shown and described the preferred construction and arrangement of the several elements, it is, of course, manifest that the same are susceptible of considerable modification, and I, therefore, reserve the privilege of adopting all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:

1. A lifting device of the character described including a handle bar, a rod carried by the handle bar and having an angularly offset portion, a second rod frictionally contacting with the offset portion of the first rod, one of said rods being provided with an obliquely inclined jaw, a jaw secured to the other rod in confronting relation to the jaw on the first rod, and means for adjusting one of said rods longitudinally of the handle with respect to the other to variably space the confronting faces of the jaws.

2. A lifting device of the character described including a handle bar, an angular rod fixed in one end of said handle bar and having an offset end portion provided with a longitudinal slot, a jaw fixed upon said rod at the inner end of said offset portion, an auxiliary handle bar adjustable longitudinally beneath the offset portion of the rod, a shank secured in said auxiliary handle bar and having a jaw on one end movable toward and from said fixed jaw, an anti-friction roller mounted upon the fixed jaw with which said shank is engaged, and a bolt threaded in said shank and having a head movable in the slot in said rod and adapted for clamping engagement with the rod to secure the auxiliary handle bar in an adjusted position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES E. SWINGLE.

Witnesses:
W. J. PARRY,
ALICE CROSSIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."