Jan. 28, 1941. M. B. McCOY 2,229,859

COLD HANDLE

Filed Feb. 27, 1940

Fig. 1.

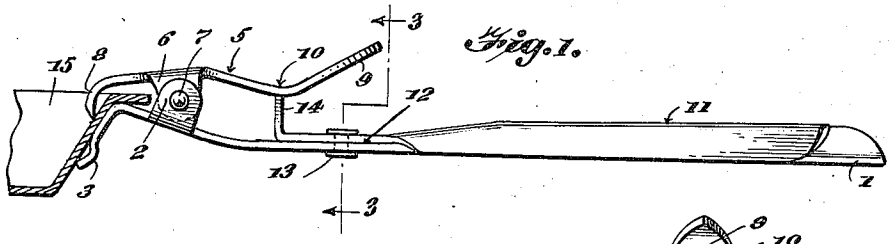


Fig. 3.

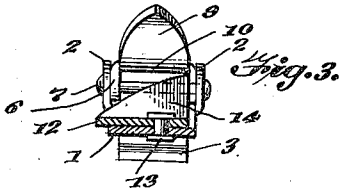


Fig. 2.

Fig. 4.

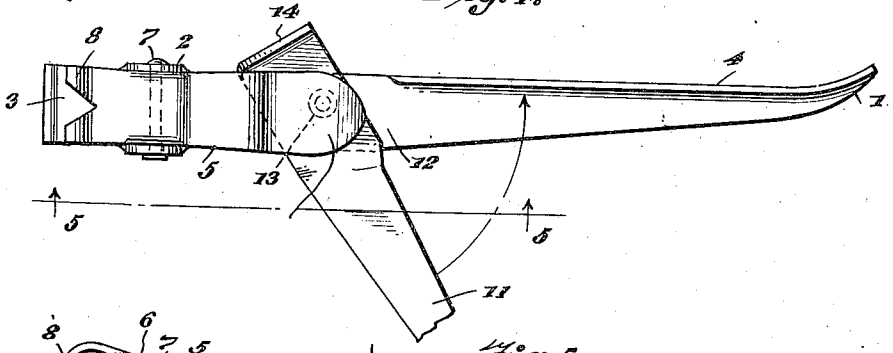


Fig. 5.

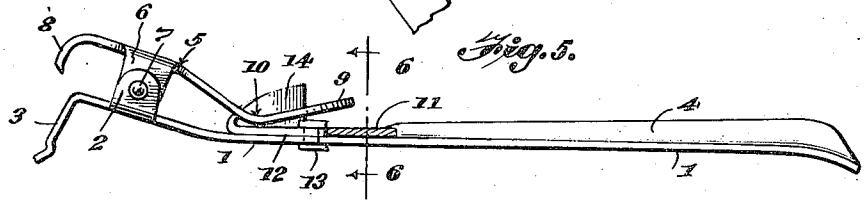
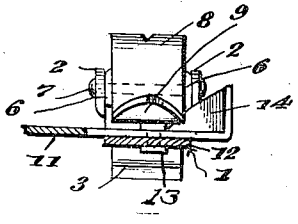


Fig. 6.



Inventor,
MILTON B. McCOY.

By E. E. Urooman & Co.
His Attorneys.

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COLD HANDLE

Milton B. McCoy, Denver, Colo.

Application February 27, 1940, Serial No. 321,096

4 Claims. (Cl. 294—31)

This invention relates to a cold handle for lifting hot utensils, and the like.

An object of the invention is the provision of an efficient cold device for services as a handle, whereby many hot things can be lifted without injury to the hand.

Another object of the invention is the construction of a lifting or handling device, that can be quickly attached to, or detached from a hot object.

A still further object of this invention is the production of a device for handling hot objects or utensils, comprising a primary-jaw handle, an auxiliary jaw on said handle, and a laterally-swinging lever arm on said handle and provided with means for operating and locking said auxiliary jaw in a clamping or gripping position.

With the foregoing and other objects in view, the invention comprises certain novel constructions, combinations, and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawing, and more particularly pointed out in the appended claims.

In the drawing:

Figure 1 is a view in side elevation of a device constructed in accordance with the present invention, showing the device applied to a cooking utensil, while

Figure 2 is a top plan view of the same.

Figure 3 is a sectional view taken on line 3—3, Fig. 1, and looking in the direction of the arrows.

Figure 4 is a top plan view of the device, showing the laterally-swinging lever arm in an outwardly extending position, part of the arm being broken off.

Figure 5 is a view partly in elevation and partly in section, taken on line 5—5, Fig. 4, and looking in the direction of the arrows.

Figure 6 is a sectional view taken on line 6—6, Fig. 5, and looking in the direction of the arrow.

Referring to the drawing, in which I have shown the preferred embodiment of my invention, 1 designates a broad primary-jaw handle, which is provided near its inner end with a pair of upstanding ears 2. This primary-jaw handle is provided at its inner end with a gripping lip 3. Extending along one edge of the primary-jaw handle is an upwardly curved flange 4, for the purpose hereinafter described.

An auxiliary jaw 5 is provided with a pair of ears 6 which are positioned within the ears 2, and a suitable pin or rivet 7 extends through ears 2 and 6, thereby pivotally mounting the auxiliary jaw upon the primary-jaw handle. The auxiliary jaw 5 is provided on its inner end with a gripping lip 8; this lip 8 cooperates with lip 3 in engaging the hot article or utensil to be lifted. The outer end of the auxiliary jaw 5 is provided with a finger grip 9; this grip 9 and the main portion of the auxiliary jaw 5 is greatly bent in at 10, for not only having the gripping finger 9 extend outwardly, but for another purpose hereinafter specified.

A laterally-swinging lever arm 11 is provided, which is pivotally mounted on the broad portion 12 of the primary-jaw handle. This mounting is accomplished by means of rivet 13, which rivet is positioned off center of the board portion 12, and near one edge of the primary-jaw handle (Fig. 2). This peculiar arrangement gives a very great fulcrum to the lever arm 11. Extending entirely across the inner end of lever arm 11 is a horizontal V-shaped upwardly extending portion 14. This V-shaped portion rides under the auxiliary jaw 5 and directly engages the deep inwardly extending portion 10 of said jaw, whereby a very efficient and powerful cam action is brought to bear upon the auxiliary jaw to move the same into position for clamping the object. The object 15 (Figs. 1 and 2) is preferably shown as being a pan.

Along the greater portion of the outer edge of the lever arm 11 is a rounded flange 4*a*, similar in construction to the upstanding and rounded flange 4 of the primary-jaw handle 1. When the device is held in the hand, it usually rests in the palm, with the fingers free to manipulate the laterally-swinging arm 11. The device is easy on the hand because the rounded portions 4 and 4*a* afford an excellent grip, removing all danger of tiring or injuring the hand. The flanges 4 and 4*a* act as stops, because a portion of the flange on the primary-jaw handle is engaged by the inner straight edge of the lever arm 11, while a portion of the inner straight edge of primary-jaw handle 1 engages a portion of the flange 4*a* on the lever arm 11. Thus, a very efficient device is produced, because of the easy handling of the device, as well as the secure holding of the two parts together during the lifting operation.

In Figure 3 I have shown clearly how the horizontal V-shaped portion of the lever arm 11 engages the lowest portion of the auxiliary jaw, and in Figure 6 I have shown clearly how the V-shaped portion practically clears the auxiliary jaw when the device is not gripping an object.

It is to be noted that the laterally-swinging lever arm 11 constitutes a necessary part of the "grip" or handle of my improved device, and that

its special arrangement affords quick manipulation, either for clamping an object or the releasing of same.

It is to be understood that the principle of this invention may be applied to tools for use in other places than in the kitchen, as for instance, the principle can be applied to pliers, pinchers and tongs, used by mechanics in all iron working of various lines of business.

When the lever arm 11 is swung to its extreme open position, the horizontal V-shaped wedge portion 14 will be entirely clear of the auxiliary jaw 5. However, as the lever arm 11 is in substantially the same horizontal plane with the primary-jaw handle 1, the operator can quickly bring the lever arm into operation, by manipulating the same with the ends of the fingers. One hand is always free, and, therefore, the operator can use the free hand to grip portion 9 of the auxiliary jaw in fixing the jaws upon the article to be lifted.

While I have described the preferred embodiment of my invention and illustrated same in the accompanying drawing, certain changes or alterations may appear to one skilled in the art to which this invention relates during the extensive manufacture of same, and I, therefore, reserve the right to make such changes or alterations as shall fairly fall within the scope of the appended claims.

What I claim is:

1. In a device of the class described, the combination of a primary-jaw handle, a laterally-swinging lever arm on said primary-jaw handle, said primary-jaw handle provided with a curved flange along one edge adapted to be engaged by a portion of said lever arm, said lever arm being provided along one edge with a curved flange adapted to be engaged by a portion of the said primary-jaw handle, the said flanges constituting side walls for the handle and the lever arm and serving as abutments to limit swinging movement of the lever arm in one direction, and an auxiliary jaw on said primary-jaw handle operated by said lever arm.

2. In a device of the class described, the combination of a primary-jaw handle and an auxiliary jaw pivotally mounted on said primary-jaw handle, said auxiliary jaw being provided with a deep inwardly-extending bend intermediate its length, and a lever arm pivotally mounted on said primary-jaw handle and formed with a cam adapted to engage only said deep inwardly-extending bend for holding the jaws in a gripping position when the lever arm is moved about its pivot in one direction.

3. In a device of the class described, the combination of an elongated primary-jaw handle, said handle being provided at its front end with a gripping lip and a pair of inwardly-extending ears, said handle being upwardly curved along its outer edge and producing a flange, an auxiliary jaw provided with a pair of ears engaging the ears on said primary-jaw handle, a pivot pin extending through all of said ears, said auxiliary jaw being provided between its ears and its rear end with a deep bent-in portion, a laterally-swinging lever arm, a rivet extending through said lever arm and through the jaw handle, said lever arm being provided along its outer side edge with an inwardly-extending flange, and said lever arm having as front end bent to form a horizontal V-shaped cam portion extending its full width and adapted to engage only said deep bent-in portion of the auxiliary jaw to move the auxiliary jaw to a gripping position when the lever arm is moved about its pivot in one direction.

4. In a device of the class described, the combination of a primary-jaw handle, an auxiliary jaw movably mounted on said primary-jaw handle, and a lever arm contiguous to said auxiliary jaw pivotally mounted on the handle and bent to form a cam extending the full width of the lever and adapted to engage and operate said auxiliary jaw when the lever arm is moved in one direction about its pivot.

MILTON B. McCOY.