

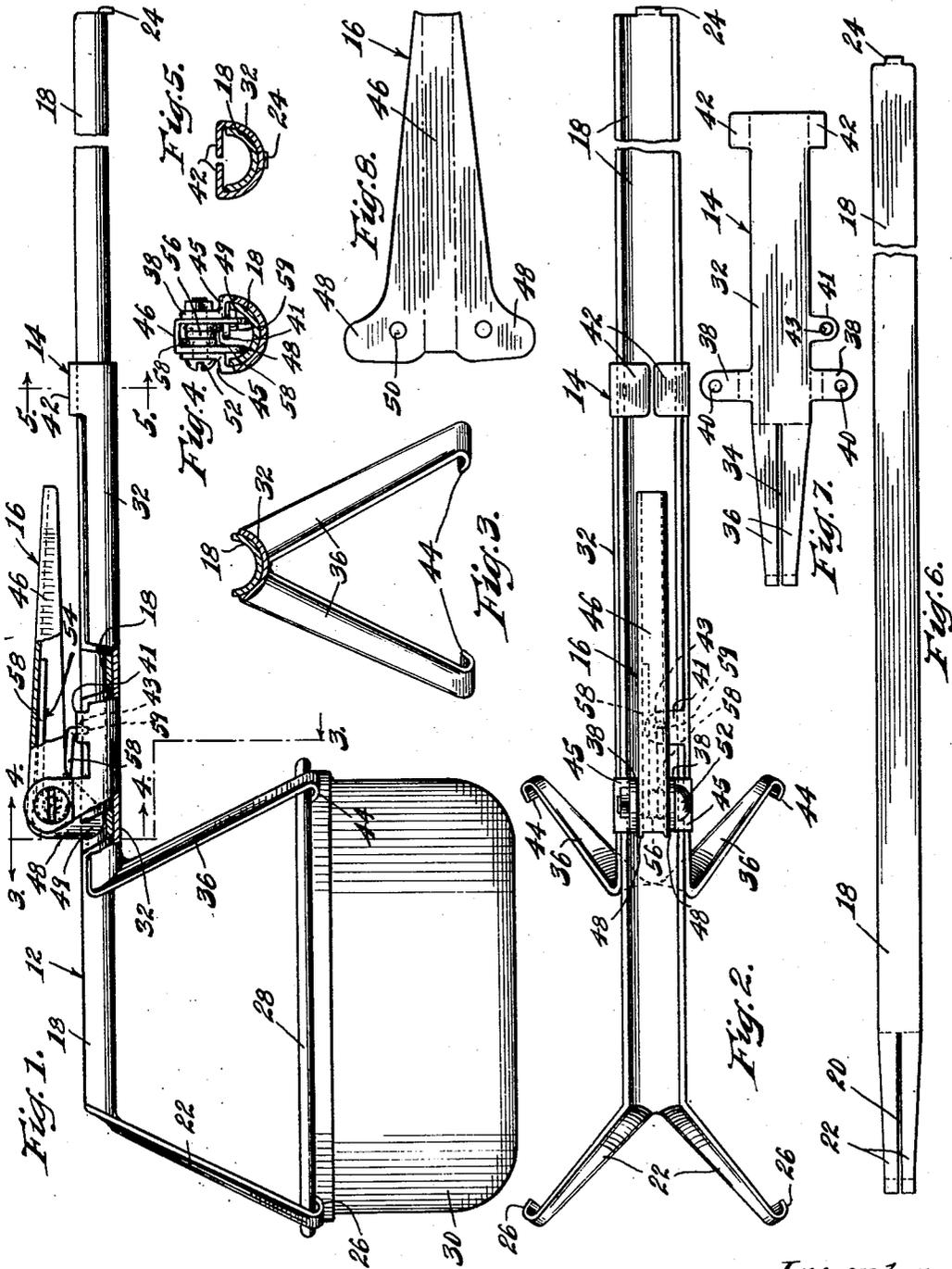
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DETACHABLE HANDLE

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DETACHABLE HANDLE

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1 Claim. (Cl. 294—34)

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This invention relates to detachable handles, and particularly the type to be used for handling hot receptacles.

In my previous patent, No. 2,140,165, issued December 13, 1938, I disclose a device of the same general type, and the present invention is an improvement thereover.

In general, the device consists of an elongated handle member with a slidable member on the handle member. Each of the two members has two depending hooks inter-cooperating to engage a hot receptacle. As the slidable member is slid along the handle member, the respective hooks are slid toward or away from the cooperating hooks, providing an adjustability for accommodating various sizes of receptacles. A lever and cam device is pivoted on the slidable member, and a spring biases the lever so that the cam engages the handle member, thereby locking the two members in fixed relative positions. When the user wishes to slide the slidable member, he depresses the lever, releasing the cam from its holding position, slides the slidable member, and then releases the lever, whereby the slidable member becomes locked in position.

An object of the present invention is to provide an improved device of this general class, which is almost entirely made of simple stampings.

The handle member and the slidable member are each formed of rounded channel, comparable in cross-sectional contour so that they fit together well. These members can be formed by simple stampings.

The depending hooks on each member can be formed in the same operations in which the members themselves are formed. One end of each member is slotted for a certain distance longitudinally thereof, and the pieces formed thereby are bent to form the hooks.

The lever and cam device is also formed by a stamping operation, and a simple wire spring is employed to bias the cam normally into position for locking the slidable member.

With these and other advantages in view, my invention consists in the construction, arrangement and combination of the various parts of my device whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

Figure 1 is a side view of the device applied to a receptacle, parts being shown in section;

Figure 2 is a top view of the device;

Figure 3 is a view taken on lines 3—3 of Figure 1;

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Figure 4 is a view taken on line 4—4 of Figure 1;

Figure 5 is a view taken on line 5—5 of Fig. 1;

Figure 6 is a developed view of the main handle member showing the stamping forming the member before it is shaped;

Figure 7 is a view similar to Fig. 6, but with relation to the slidable member; and

Figure 8 is a view similar to Fig. 6, but with relation to the lever and cam device.

Referring now in detail to the drawings, the main handle member is indicated at 12, the slidable member at 14, and the lever and cam device at 16. The main handle member is formed from flat sheet metal stock and is stamped to form the blank 18 as shown in Fig. 6. In the stamping operation, one end of the blank is slotted as indicated at 20, forming two legs 22 and a small projection 24 at the opposite end. The main body portion of the blank 18 is shaped to semi-circular form in cross-section as shown in Fig. 3. Also, the legs 22 are bent laterally from the main body portion, and at the ends, hooks 26 are formed for engaging under the bead or marginal edge 28 of a receptacle 30. The projection 24 at the opposite end of the blank 18 is bent downwardly as shown in Fig. 1 for forming a stop.

The slidable member 14 is of semi-circular cross-sectional shape, similar to that of the main handle member. Fig. 7 shows a blank stamped from flat sheet metal, before it has been shaped into the finished slidable member. The blank of the slidable member 14 is formed with a main body portion 32, one end of which is slotted at 34, forming legs 36. At the same end of the blank on which the legs 36 are formed, are a pair of oppositely extending lateral ears 38, having holes 40 punched therein. At the far or opposite end are another pair of projections, constituting oppositely extending lateral lugs 42. Formed on one side of the blank, adjacent the corresponding ear 38, is a lug 41 having a hole 43. The blank as thus cut, and as shown in Fig. 7, is shaped into the finished, semi-circular cross-sectional shape for assembling in the device. The curvature of the two members is similar for providing a cooperating sliding fit. The leg portions 36 are bent laterally from the main body portion 32, and the ends are bent back to form hooks 44, which are adapted to engage the receptacle 30 similarly to the hooks 26.

The ears 38 are bent inwardly, as shown at 45, and upwardly (Fig. 4), to a position where the holes 40 are in alignment and adapted for pivot-

ally supporting the lever and cam device 16. The laterally extending portions 45 of the ears 38 secure the slidable member 14 on the main handle member 12. The lugs 42 on the opposite end of the main body portion 32 are bent inwardly toward each other, as shown in Fig. 5, and positioned on the open side of the main handle member. The ears 38, and the lugs 42 together retain the slidable member 14 on the main handle member 12 and keep it alignment thereon. The lug 41 is also bent inwardly to form a point of reaction for a spring which will be described later.

The lever and cam device 16 is formed from a blank as shown in Fig. 8. The blank, similarly to the other parts of the device, is formed from flat metal stock. The blank has a body portion 46 having opposite laterally extending extensions 48 which ultimately form cam means. Inwardly from the lateral extremities of the cams 48 are holes 50, one associated with each extension 48. The main body portion 46 tapers from the lateral extensions 48 to the opposite end. The blank is then shaped into a rectangular cross-sectional shape as shown in Fig. 4 so that the holes 50 are in alignment. When thus shaped the extensions 48 form cam means indicated generally at 49. The lever is then inserted between the ears 38, and a pin or rivet 52 is inserted through the holes 40 and 50 for securing the lever 16 in the slidable member 14. When assembled, the cam means 49 extends downwardly into close proximity to the floor of the channel forming the main handle member.

In assembling the lever 16 in the slidable member 14, a wire spring 54 is inserted. This wire spring is of a common well known type having a coiled portion 56 and legs 58. The pin 52 extends through the coiled portion 56 of the spring and the legs 58 extend in the direction of the lever 16, one leg having a downwardly extending tip 59 which is inserted in the hole 43 in the lug 41, and the other leg contacting the inner side of the channel forming the lever 16.

The cam means 49 is so shaped that when the lever 16 is biased upwardly by the spring 54; it comes into contact with the main handle member 12, and when the lever 16 is depressed by the user, the cam means 49 comes out of contact with the main handle member 12. By depressing the lever 16, the slidable member 14 can be slid along the handle member 12 for adjusting the legs 22 and 36 with relation to each other for engaging different sized receptacles 30. It will be noted that the spring 54 does not come into direct contact with the main handle member 12; but is supported by the slidable member 14. Thus the slidable member can be easily slid

on the handle member without any dragging effect by the spring. The downturned lug 24 prevents the slidable member 14 from being withdrawn from the handle member 12.

From the foregoing it will be noted that the device is very simple and inexpensive to manufacture, and makes a pleasant appearing product. The curvature of the channel forming the handle member 12, gives it great strength for handling heavy receptacles.

Although I have herein shown and described a preferred embodiment of my invention, manifestly it is capable of modification and rearrangement of parts without departing from the spirit and scope thereof. I do not, therefore, wish to be understood as limiting this invention to the precise form herein disclosed, except as I may be so limited by the appended claim.

I claim as my invention:

In a detachable handle, an elongated main member formed of a stamping, said stamping being slotted longitudinally at one end forming a pair of integral hooks, said stamping being channel shaped, said hooks being bent laterally of said stamping, and being divergent due to the channel shape of the stamping, a slidable member formed of a stamping, said second stamping being slotted longitudinally at one end forming a pair of hooks, said second stamping being channel shaped, said hooks being bent laterally of said stamping, and being divergent due to the channel shape of the stamping, said slidable member being fitted on said main member with the open sides of the channels facing in the same direction, a pair of ears formed integrally with the lateral edges of the slidable member and extending over the open side of the main member, a stamped lever pivoted in said ears, said lever having cam means extending into the channel of said main member and adapted to engage the floor of the channel of the main member, and spring means reacting between the lever and the slidable member for biasing said handle in a direction to bring said means into friction engagement with the main member.

ALBERT F. PLITT.

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