STACKING BASKET OR RECEPTACLE WITH A REMOVABLE WORK HOLDING TRAY


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6 Claims. (Cl. 220—19)

This invention relates to a stacking basket or receptacle with a removable work holding tray.

The main objects of the invention are:

First, to provide a stacking basket or crate adapted for use in handling work pieces in factories in which the work pieces are effectively supported for convenient access and in which loaded and also unloaded trays are conveniently handled and securely supported in stacked relation.

Second, to provide a receptacle having these advantages which is strong and rigid and at the same time formed of a relatively small amount of material.

Third, to provide a stacking receptacle adapted to removable use in a work tray in which the tray is effectively supported in an elevated position in the receptacle so that work pieces may depend therefrom within the receptacle and be well protected.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a receptacle or basket embodying my invention, a fragment only of the tray being shown.

Fig. 2 is an end elevational view showing one receptacle superimposed upon another, the lower receptacle being shown by dotted lines.

Fig. 3 is a fragmentary view in vertical longitudinal section on a line corresponding to line 3—3 of Figs. 1 and 2.

Fig. 4 is an enlarged fragmentary transverse section showing structural details and the relation of the tray to the supporting ledges and one of the springy tray retaining detents.

Fig. 5 is a fragmentary transverse section illustrating a manner of engaging and disengaging the tray with the supporting ledge, the tray illustrated being a modified form.

Fig. 6 is an enlarged fragmentary perspective view showing details of the stacking lugs and associated stacking parts.

The embodiment of my invention illustrated comprises outer base bars 1—1 and intermediate base bars 2—2, these base bars being in laterally spaced relation. These base bars are formed of wire or light rod, the outer base bars 1 having a turned-up integral end slats 3—3 while the intermediate base bars 2—2 have upturned end slats 4—4. The end slats 3—3 and 4—4 are secured upon the outer sides of the top frame end members 5 which are integrally connected by the side members 6—6. The top frame is also formed of wire or light rod.

Collar spaced cross bottom members 7 are disposed upon and fixedly secured to the base bars. These bottom members have upturned ends constituting side slats 8, the upper ends of which are secured to the outer sides of the top side member 6.

The bottom bars 1 extend beyond the vertical planes of the top frame end members 5 and the end slats 3 are offset at 9 to merge into the ends of the base bars, thus providing projecting stacking support members or lugs 10 adapted to rest on the top end members 5 of a lower receptacle when a receptacle is stacked upon another.

Inverted U-shaped combined stacking and handle members designated generally by the numeral 11 are disposed with their arms 12 on the outer sides of the top frame end members 5 and fixedly secured thereto.

The eight portions of these members 11 are offset outwardly and constitute handle grips. The arms 12 of the members 11 are laterally offset at 14 so that the upper ends of these members are spaced to receive the projecting portions of the handle members of the lower receptacle between them as is shown in Fig. 2. The arms terminate in horizontal extensions 15 constituting base bars which are secured to the undersides of an adjacent pair of bottom members 7. These extensions 15 extend beyond the vertical plane of the top frame end members 5.

The arms 12 are outwardly offset at 16 to provide stacking support members or lugs 17 corresponding to the support members 10 of the outer base bars 1. These supporting members 10 and 17 effectively distribute the load of the superimposed receptacle upon the lower receptacle. The outer supports 10 are vertically aligned with the vertical end slats 3, see Fig. 2. This is of substantial importance as the receptacles are designed for use in the handling of heavy metal parts.

The stacking lugs and supports are so arranged that the one receptacle may be readily stacked upon another and they are securely retained in stacked relation. The interengagement of the parts being clearly shown in Fig. 6. At the same time the grip of the handles are unobstructed. The base bars serve as runners when the receptacle is dragged along the floor.

Card holders 18 are secured to the outer sides of the slats 4. Arranged in an inclined position are spacy bars 181 positioned on the inner sides of the end members 5 and welded thereto. This bar prevents the tray 19 from shifting laterally as shown in Fig. 3.

This receptacle described may be used for carrying relatively large articles placed therein but the receptacles are primarily designed for carrying a plurality of relatively small objects and to this end trays designated generally by the numeral 19 are provided comprising border frames 20 and laterally spaced cross racks 21 having loops 22 thereon adapted to receive the work pieces, the work pieces being suspended within the receptacle from the rack. The rack is detachably mounted on ledges 23 which are secured on the inner sides of the side slats 8 in spaced relation to the top frame.

The slats 8 are outwardly offset at 24 so that the racks may be readily engaged and disengaged with the ledges 25. The ledges 23 are provided with upward projecting springable detents 25, those illustrated being formed of wire and comprising a shank portion terminating in a loop 26 which is welded to the outer sides of the ledges. The upper ends of the shanks terminate in downturned springable fingers 27 which overhang the ledges and the lower ends of which are spaced therefrom, as shown in Fig. 4.

The fingers 27 are turned laterally to engage the outer sides of the shank portions of the detents to limit the inward springing movement of the detent fingers. In Fig. 5 a modified form of rack designated generally by the numeral 28 is shown. It will be understood that the racks may be varied according to the particular work they are designed to support. The several parts of the receptacle and the several parts of the rack are fixedly
I have illustrated and described my improvements in a highly practical embodiment thereof. I have not attempted to illustrate other embodiments or adaptations which I contemplate as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

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

1. The combination with an open top main receptacle including a top border frame having integral side and end members, laterally spaced base bars having integral upturned end portions secured at their upper ends to the end members of said top frame and constituting end wall slats, laterally spaced cross bottom bars disposed upon and fixedly secured to said base bars and having upturned end portions secured at their upper ends to the side members of said top frame and constituting side wall slats, tray supporting ledges secured to the inner sides of said side wall slats in downwardly spaced relation relative to said top frame side members, the portions of said side wall slats above said ledges being outwardly inclined, a work tray dimensioned to be positioned within said receptacle and including side bars supportedly engageable with said tray supporting ledges, and springable detents mounted on said tray supporting ledges to project upwardly at the outer sides thereof and having rail engaging portions normally overhanging said ledges for releasable engagement with the side bars of a tray supportedly positioned on said ledges.

2. The combination with an open top main receptacle including a top border frame having integral side and end members, laterally spaced base bars having integral upturned end portions secured at their upper ends to the end members of said top frame and constituting end wall slats, laterally spaced cross bottom bars disposed upon and fixedly secured to said base bars and having upturned end portions secured at their upper ends to the side members of said top frame and constituting side wall slats, tray supporting ledges secured to the inner sides of said side wall slats in downwardly spaced relation relative to said top frame side members, a work tray dimensioned to be positioned within said receptacle and including side bars supportedly engageable with said tray supporting ledges, and springable detents mounted on said tray supporting ledges, and detents engageable with said tray supporting ledges, portions of the slats above said ledges being outwardly inclined, a work tray dimensioned to be positioned within said receptacle and including supporting bars supportingly engageable with said ledges with the tray disposed within said receptacle, and springable detents mounted on said tray supporting ledges to project upwardly therefrom at the outer sides thereof and having rail engaging portions normally overhanging said ledges for releasable engagement with the supporting bars of a tray supportedly positioned on the ledges.

4. The combination with an open top main receptacle including a top border frame having integral side and end members, laterally spaced base bars having integral upturned end portions secured at their upper ends to the end members of said top frame and constituting end wall slats, laterally spaced cross bottom bars disposed upon and fixedly secured to said base bars and having upturned end portions secured at their upper ends to the side members of said top frame and constituting side wall slats, tray supporting ledges secured to the inner sides of said side wall slats in downwardly spaced relation relative to said top frame side members, the portions of said side wall slats above said ledges being outwardly inclined, a work tray dimensioned to be positioned within said receptacle in supported engagement with said tray supporting ledges, and detents engageable with said tray to releasably hold it upon said ledges.

5. The combination with an open top main receptacle including a top border frame, wall slats extending downwardly therefrom, tray supporting ledges secured to the inner sides of the slats of opposed walls in downwardly spaced relation to the top border frame, the portions of the slats above said ledges being outwardly inclined, a work tray dimensioned to be positioned within said receptacle and including supporting bars supportingly engageable with said ledges with the tray disposed within said receptacle, and springable detents mounted on said tray supporting ledges to project upwardly therefrom at the outer sides thereof and having rail engaging portions normally overhanging said ledges for releasable engagement with the supporting bars of a tray supportedly positioned on the ledges.

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