

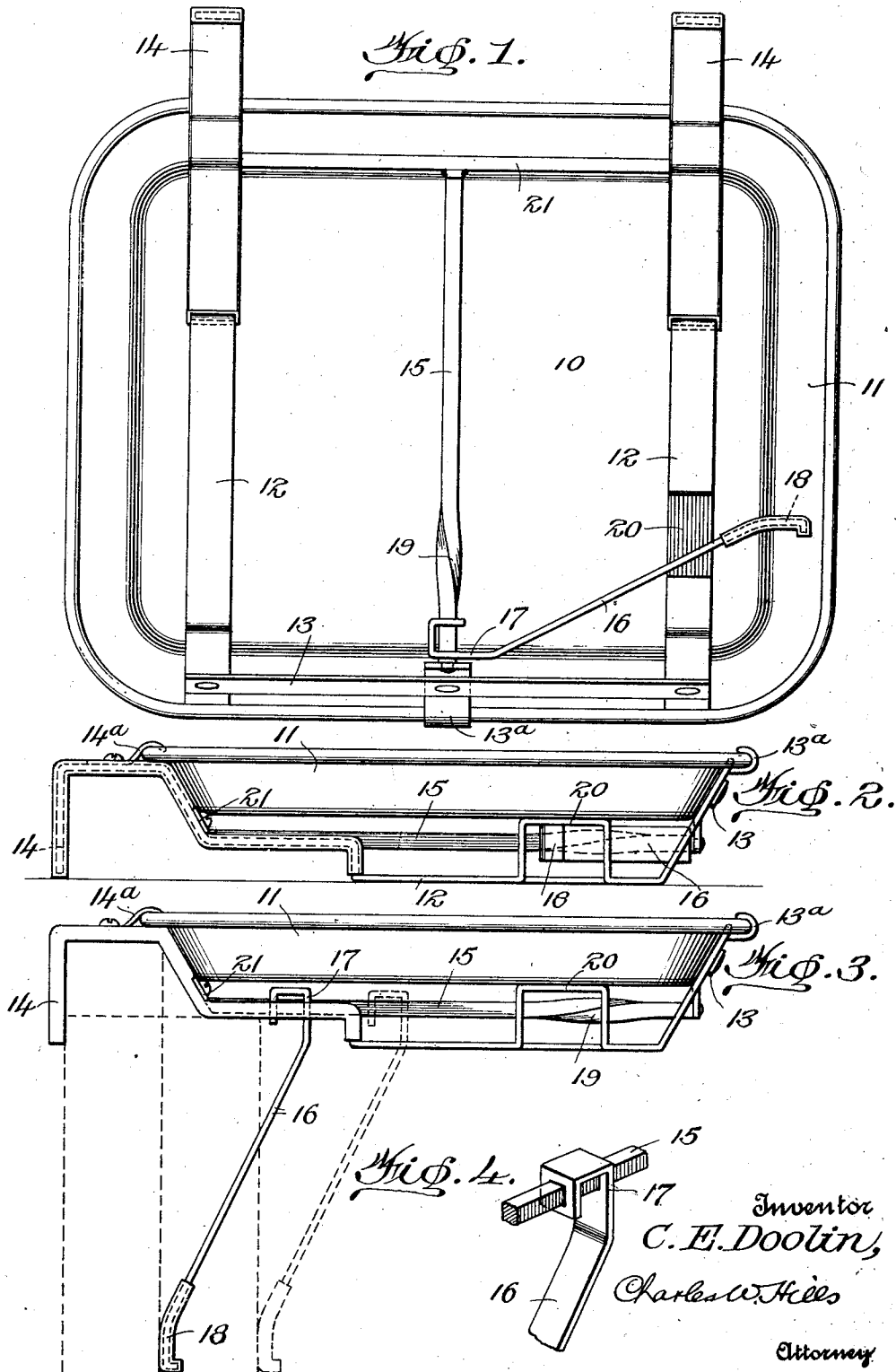
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CAR SERVICE TRAY

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UNITED STATES PATENT OFFICE

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CAR SERVICE TRAY

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This invention relates to trays and more particularly to trays of that nature utilized in connection with service at automobiles or other motor cars standing at the road side, my primary object being the provision of a tray which may be effectively clamped in position upon the side door or other portion of the body of a motor car, and which may, when detached, be easily supported in a substantially horizontal position upon a counter, or other support in a store where the goods to be dispensed are placed upon the tray in the first instance.

Trays of this general character are commonly provided at the edge with spaced-apart door-engaging lugs and with an arm between the lugs which is movable with respect to the tray toward and away from the lugs, the support or guide of the arm being adapted to frictionally hold the arm when the latter is shifted against the outer surface of the door after the lugs have been extended over the upper edge of the door to engage its inner surface.

I have found certain difficulties in the use of trays of this type, one of which is encountered more or less frequently and results from the two ready sliding movement of the arm toward the lugs and to such a point that it prevents the lugs from being shifted over the edge of the door and against its inner surface without first retracting the arm, after which it must be again shifted toward the lugs. It is obvious that with the tray loaded it should, for greatest efficiency, be easily adjusted to a door, and it is therefore one of the objects of my invention to insure a position of the door-engaging arm, which will, at the time of application of the tray to the car door or side, enable the proper connection of the tray with the least trouble.

It is a further object of my invention to provide a device in which the supporting legs are formed by straps attached to the tray and terminating at one end in door-engaging lugs, and it is a still further object to make the supporting structure readily detachable with respect to the tray by providing the leg-forming straps with clamps adapted for engagement with the edge of the tray.

In carrying out my invention, I propose an arm which is both shiftable in connection with a guide on the tray toward and away from the door-engaging lugs and swingable with respect to said guide so that it may fold against the tray at a point remote from the lugs so as not to interfere with the proper engagement of the latter over the edge of a car door or side when the tray is to be clamped thereto. The means utilized to permit of such movement of the door-engaging arm of the tray are such as to permit of ready movement of the arm when released toward the lugs and thus into properly clamped relation with the door or car side.

In the accompanying drawings, which illustrate this invention and form part of my invention:

Figure 1 is a bottom plan view of my car service tray, showing the door-engaging arm in its retracted and folded position.

Figure 2 is a side view with the parts in the same position so that the tray may rest in an approximately horizontal position upon a counter or other supporting surface.

Figure 3 is a side view illustrating the tray in connection with a car side or door and showing the clamping arm in its effective position.

Figure 4 is a detail perspective view of a portion of the clamping arm and its guide.

Referring now to these figures, the tray selected for illustration is designated at 10 and is preferably of that type having a surrounding flange 11 which presents a substantial edge for a purpose to be presently set forth.

Across the bottom of the tray in parallel spaced-apart relation are a pair of bent straps 12, preferably connected at one end by a cross bar 13 having at a central point a clip 13² which engages one flanged edge of the tray.

At one end the said bottom straps 12, which are spaced from the tray to form legs, have annular depending portions 14 which constitute door-engaging lugs, and it will be noted from Figures 2 and 3 in particular that these lugs are preferably offset beyond the adjacent edge of the tray so that they may be easily

engaged over the edge of a door or car side without danger of interference by the tray itself. Each of the portions 14 has thereon a screw-seated clamp 14^a for engagement with the adjacent edge of the tray.

Between the straps 12 and parallel therewith is a guide bar 15, preferably of squared or polygonal cross section, in connection with which a door-engaging arm 16 is movably guided, the arm having at one end a slightly canted portion 17 which has a slidable bearing on the guide bar 15. The other end 18 of the arm is preferably provided with a rubber, or other soft covering similar to the covering of the lug-forming portions 14 of the bottom straps 12 so as to engage a door or car side without danger of scratching or marring the same.

The arm 16 is thus slidable on the bar 15 forwardly toward the lugs 14 and rearwardly away from the same, and it will be noted that adjacent to its rear end, or that end farthest removed from the legs 18, the guide bar 15 is twisted as at 19, so that movements of the arm 16 along the twisted portion of the bar cause the arm to swing toward and away from the bottom of the tray.

For this purpose one of the bottom straps 12 has a portion 20 offset against the base of the tray so as to receive in this offset portion the free end of the arm 16 when the latter is shifted rearwardly along the twisted portion of the guide bar and during such movement, is caused to swing or fold laterally toward the bottom of the tray.

In practice and as shown in Figure 3, the door-engaging arm is of substantially greater length than the lugs 14, and thus in order to permit the tray to rest as in Figure 2, in an approximately flatwise position upon a counter or other support preparatory to loading the tray, it is necessary to retract the door-engaging arm until it shifts or folds laterally against the bottom of the tray. This in turn insures that the door-engaging arm will be in its retracted or inactive position when the tray is picked up at the counter to be carried to an automobile at the curb side or road side, and thus insures that the lugs 14 may be freely disposed over the edge of the door after which it is simply necessary to swing the arm downwardly and shift it forwardly into engagement with the outer surface of the door.

The slightly canted relation of the bearing portion 17 of the arm 16 insures sufficient frictional grip between the arm and the guide bar 15 to hold the arm in its effective position, shown in Figure 3, when applied to a car side, or a car door.

The bar 15 is spaced below the lower surface or bottom of the tray and rigidly connected at one end to a depending portion of the clip 13^a and is similarly united at its other end to the central portion of a cross bar 21

which connects the straps 12 adjacent to the door engaging lugs or hooks 14. Thus the tray 10 is detachably engaged by the clip 13^a and the clamps 14^a and held in connection with its supports including the leg forming straps 12 in such manner that it may be changed from time to time as desired.

What is claimed is:—

1. A service tray having support-engaging lugs, a support-engaging arm opposing the lugs, and a polygonal guide bar on which said arm has a slidable bearing, said guide bar having a portion thereof twisted whereby to force swinging movement of the support-engaging arm toward and away from the tray.

2. A service tray, a guide bar carried by said tray, a support-engaging brace arm slidable on said guide bar for longitudinal movement, and means on said guide bar translating the longitudinal movement of the brace arm to a turning movement.

3. A service tray having support-engaging lugs in connection therewith, a support-engaging brace arm, a guide bar on which said brace arm is slidable for longitudinal movement toward and away from the lugs, and means on said guide bar translating the longitudinal movement of the brace arm to a turning movement whereby to swing the brace arm toward and away from the tray during sliding movements of the arm.

In testimony whereof I hereunto affix my signature.

CHARLES E. DOOLIN.