June 6, 1950 O. MEERS 2,510,646

TRAY CARRIER

Filed May 4, 1949 2 Sheets-Sheet 1

Fig. 1.

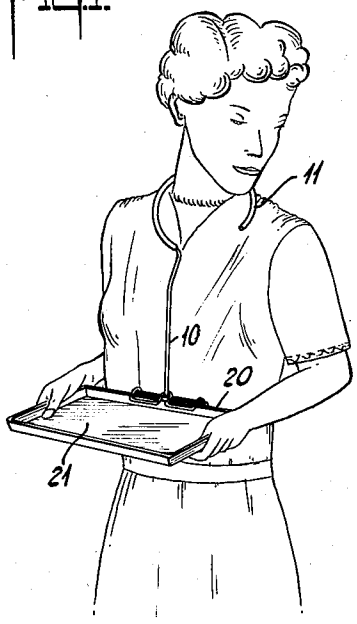


Fig. 2.

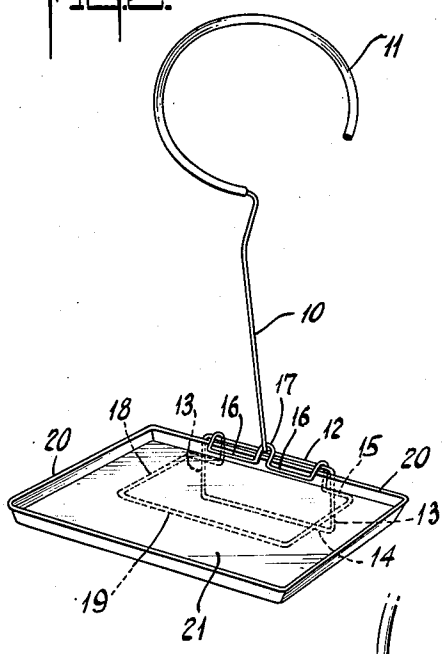


Fig. 3.

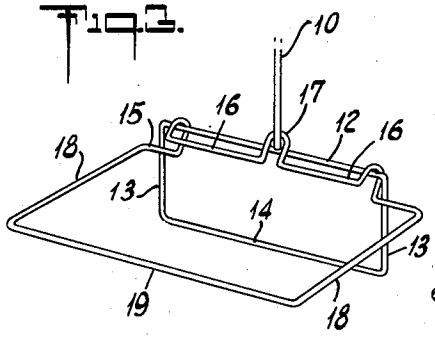


Fig. 5.

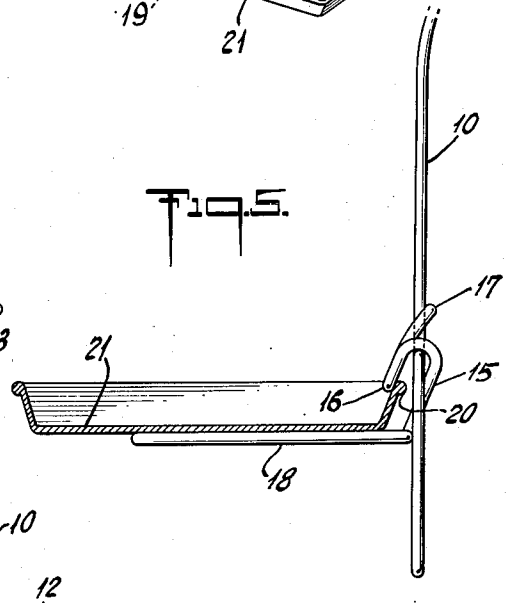
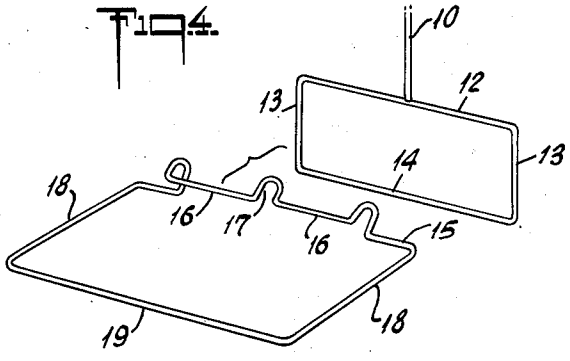


Fig. 4.



INVENTOR
OTTO MEERS.

BY
Curtis Morris & Safford
ATTORNEYS

June 6, 1950 O. MEERS 2,510,646

TRAY CARRIER

Filed May 4, 1949 2 Sheets-Sheet 2

Fig. 6.

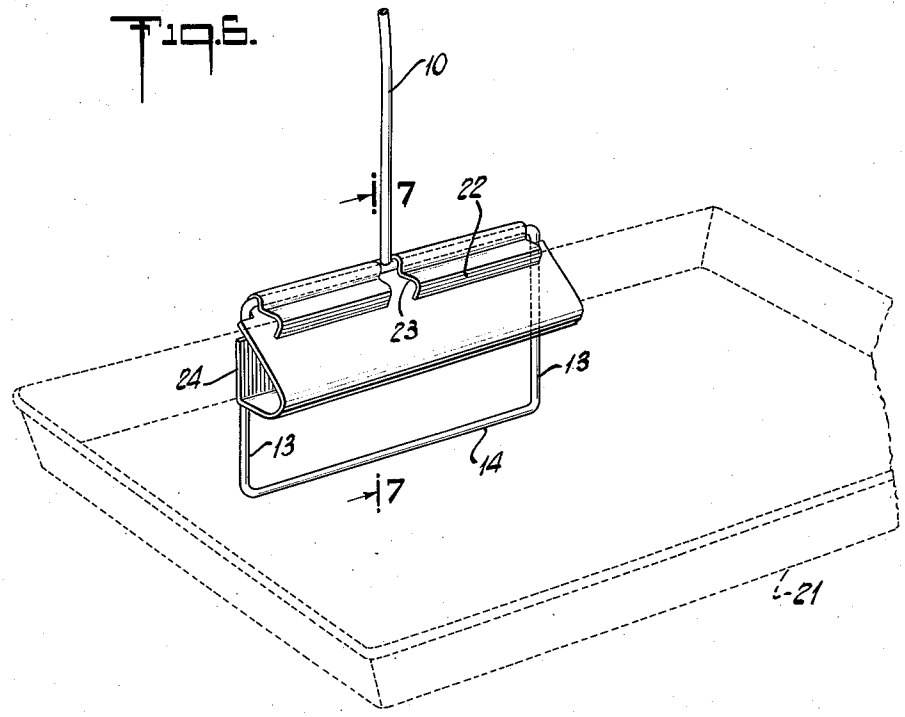
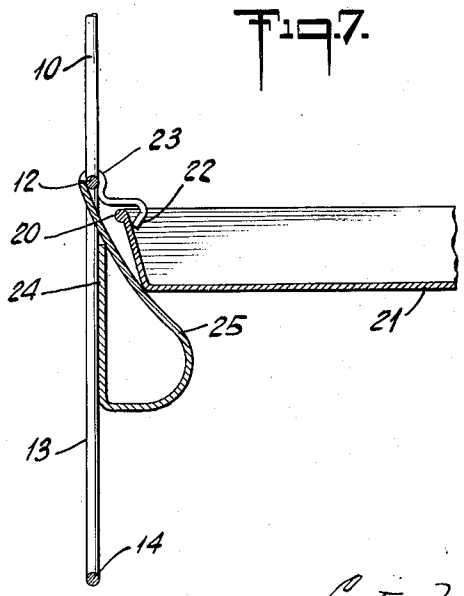


Fig. 7.



INVENTOR
OTTO MEERS.

BY
Curtis Morris & Safford
ATTORNEYS

Patented June 6, 1950 2,510,646

UNITED STATES PATENT OFFICE

2,510,646

TRAY CARRIER

Otto Meers, New York, N. Y.; Edwina Meers, executrix of said Otto Meers, deceased

Application May 4, 1949, Serial No. 91,353

2 Claims. (Cl. 224—5)

1

The present invention relates to tray carriers of the type wherein a serving tray or the like is conveniently suspended from or attached to the person of the user. Devices heretofore designed for a similar purpose and with which I am familiar involve various disadvantages. In some cases, the complexity of their structure makes them too bulky and unduly increases their cost beyond their reasonable value in use. In other instances, these tray carriers are of unsightly appearance and difficult to clean. An object of my invention has been to provide a tray carrier of the kind indicated which will be substantially free from the disadvantages above noted.

My invention is embodied in a combination of a main frame or suspending member and tray supporting means cooperating therewith, said main frame including in one form a shank portion having suspending means arranged at or near the upper end thereof and adapted to be readily attached to and detached from a wearer or user of the device and a lower portion at the opposite or lower end of the shank and having means engaging and supporting the tray whereby the latter may be releasably carried by the main frame. The tray supporting means in this combination has portions formed to engage with said lower portion of the main frame and other parts arranged and adapted to engage the rim portion of a serving tray or the like.

An embodiment of my invention is illustrated in the drawings accompanying this specification and wherein—

Figure 1 is a view in perspective illustrating one form of a tray carrier in a typical position of use and with a tray in position thereon;

Figure 2, a view in perspective of the device illustrated in Figure 1 but on an enlarged scale and showing certain other parts not visible in Figure 1;

Figure 3, a fragmentary view in perspective illustrating on enlarged scale details of construction of the apparatus shown in Figures 1 and 2 and with the parts assembled for use;

Figure 4, an exploded view illustrating the construction of a portion of the main frame and the construction of one form of tray supporting frame in detached relation thereto;

Figure 5, an enlarged fragmentary view in end elevation of the device shown in Figure 3;

Figure 6, a view in perspective illustrating a modification; and

Figure 7, an enlarged fragmentary view in vertical section showing details of construction of the modified form of device illustrated in Figure 6.

2

As seen in the drawings, a complete tray carrier assembly according to my invention includes a main frame or suspending member provided with a shank portion 10, and a separate tray engaging and supporting device attachable to and detachable from said main frame. Suspending or attaching means in the form of a hook-shaped terminal 11 is provided at the upper end of shank 10. At its lower end, said shank 10 carries a laterally extending cross piece 12. Where the frame is made of wire or a wire-like material, the cross piece 12 conveniently forms part of a rectangularly shaped lower member arranged and adapted to cooperate with said separate tray engaging frame and having lateral end pieces 13 extending downwardly from the cross piece 12 and connected at their lower ends by a straight piece 14.

In the embodiment illustrated in Figures 1 to 5 inclusive, a separate tray engaging and supporting member or frame also made of wire or wire-like material is conveniently formed with a generally rectangular contour. One side member 15 thereof is deformed to provide means whereby the tray engaging and supporting frame may conveniently be attached to and detached from the main frame. For this purpose, said side member 15 is bent to form, in effect, a pair of spaced hook members 16, one being located at each side of the shank 10 when the parts are assembled as illustrated in Figure 3, said hook members 16 being spaced apart by the loop 17 formed in side member 15. End pieces 18 and an outer side member 19 complete the rectangularly shaped separate frame.

When the separate tray engaging frame above described is assembled with the main frame, laterally extending end portions of the side member 15 lie across and bear against portions of the vertical end pieces 13 of the main frame. Side member 15 is shaped to extend rearwardly behind cross piece 12, as indicated more clearly in Figure 5, then passes upwardly over said cross piece 12 to form the hook members 16 return portions of which extend downwardly and outwardly in such relation to the remainder of the separate frame as to engage and retain the rim 20 of a tray 21, or the like when the latter is operatively positioned on said frame. Other portions of hooks 16 extend upwardly and rearwardly to form the open loop 17 which passes to the rear of shank 10 when the parts are assembled as shown. Thus, the detachable frame above described engages and supports the tray 21 and is itself releasably supported by the main frame substantially at right angles to the axis of the shank 10 thereof

and in such a manner that curved portions of hook 16 rest firmly upon the cross piece 12; and said separate frame is prevented from swinging downwardly or rotating in relation to said cross piece by the engagement of loop 17 at the rear of shank 10 and by the engagement of portions of the side member 15 against adjacent portions of the end pieces 13.

In operation, the main frame is suspended upon the person of the user as indicated in Figure 1, with the detachable frame engaged therewith. A tray as 21 is brought into operative supported position thereon by inserting portions of the rim 20 thereof inwardly to a position behind the hooks 16, as indicated in Figure 5 and with its bottom wall resting on the end pieces 13 and the side piece 19.

In the modified form of device shown in Figures 6 and 7, the detachable tray engaging and supporting member is formed from sheet material as metal, plastic or other suitable substance. In this case, a metal sheet or the like, of appropriate size and shape has one edge portion formed as hook 22 of reduced width in relation to the remainder of the sheet and such that it will pass between the vertical end pieces 13. Said hook 22 is provided with a slot 23 arranged and adapted to engage shank 10 when the parts are assembled as shown in Figure 6.

Said sheet also provides a back plate 24 having portions bearing rearwardly against the end pieces 13, when assembled as shown, said back plate 24 being connected to the hooks 22 by an obliquely disposed portion 25 which provides a convenient means for engaging and supporting a part of tray 21 when rim 20 thereof is engaged behind hooks 22.

In operation, the tray engaging member comprising the hooks 22 is first releasably attached to the main frame so that shank 10 is embraced in the slot 23 between hooks 22, portions of which rest upon the cross piece 12 while end portions of the back plate 24 bear rearwardly against the end pieces 13. When a tray 21 or the like is engaged with rim 20 under the hooks 22, and the parts are assembled as shown the tray will be effectively supported on the user's person in substantially the position as seen in Figure 1.

I claim:

1. In a portable individual tray carrier the combination of a main frame which includes a shank portion, a suspending member at one end thereof, a laterally extending cross piece, and spaced members extending downwardly from said cross piece, and a tray supporting frame mounted on said main frame and including a member extending rearwardly between said spaced members of the main frame and behind said cross piece with a portion bearing against a rear portion of said shank above the level of said cross piece and spaced portions overlying said cross piece, said tray supporting frame also including a tray rim retaining member having portions extending forwardly and downwardly and portions which bear rearwardly against said spaced members.

2. In a portable individual tray carrier the combination of a main frame which includes a shank portion, a suspending member at one end thereof and a cross piece extending laterally from said shank and spaced members extending downwardly from said cross piece, and a tray supporting frame attachable to and detachable from said main frame and having a main frame engaging member extending rearwardly between said spaced members and behind said cross piece and having a portion arranged and adapted to bear against a portion of said shank above the level of said cross piece, said tray supporting frame also including a tray rim retaining member having portions extending from said main frame engaging member over said cross piece and outwardly and downwardly therefrom, and a tray bottom engaging member having rearwardly exposed portions which bear against front portions of said spaced members.

OTTO MEERS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
428,543	Yund	May 20, 1890
1,283,389	Wills et al.	Oct. 29, 1918
1,630,889	Clarke	May 31, 1927
2,289,945	Wadsack	July 14, 1942