J. J. MOORE.

WHEEL SERVING TRAY.

APPLICATION FILED MAR. 23, 1915.

1,203,545.

Patented Oct. 31, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

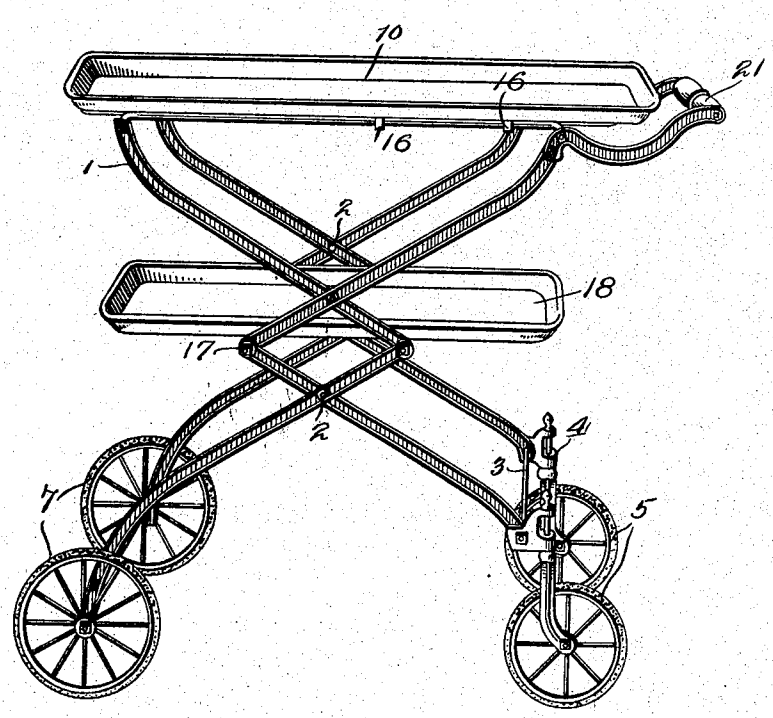
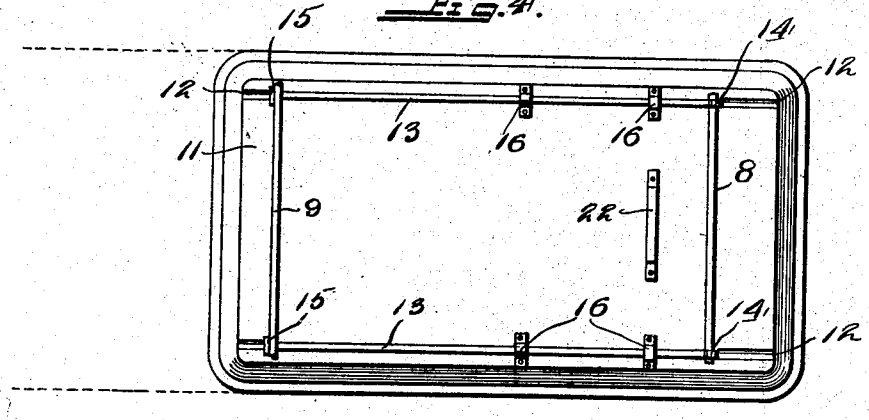


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 2.

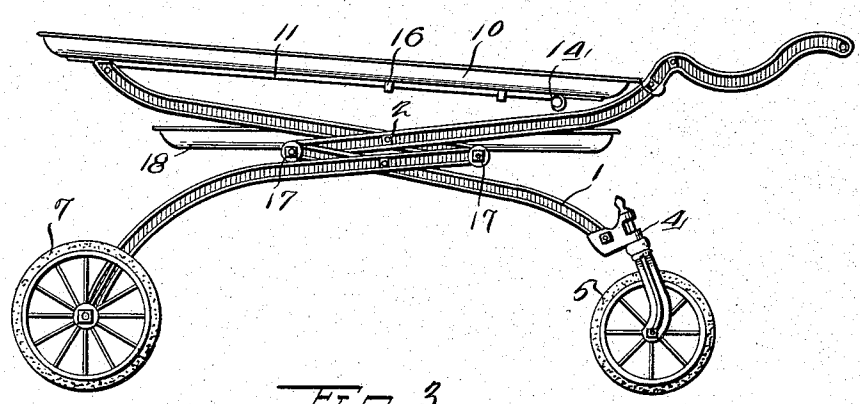
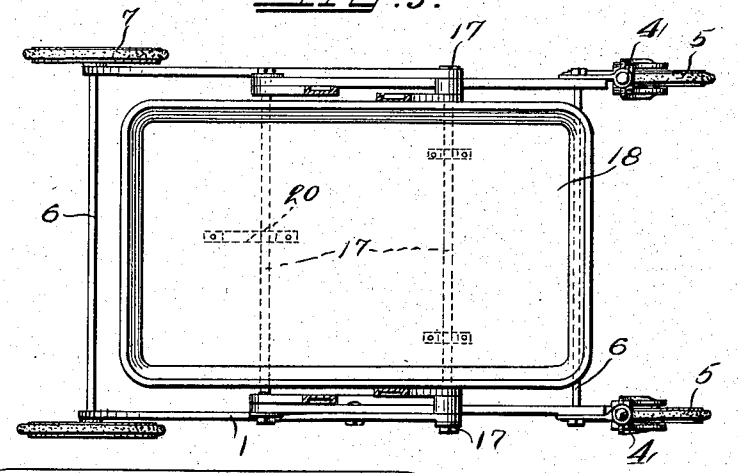


Fig. 3.



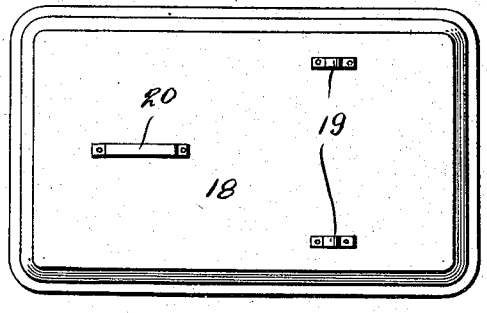


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN J. MOORE, OF BATAVIA, NEW YORK.

WHEEL SERVING-TRAY.

1,203,545. Specification of Letters Patent. Patented Oct. 31, 1916.

Application filed March 23, 1915. Serial No. 16,467.

To all whom it may concern:

Be it known that I, JOHN J. MOORE, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented certain new and useful Improvements in Wheel Serving-Trays, of which the following is a specification.

This invention relates to serving trays of the wheel type and is especially designed for dining room and hospital service.

One of the objects of this invention is to provide a vertically adjustable structure to conform to the height of the bed, table, etc., which is being served.

Another object is to equip the adjustable frame with superposed trays, to provide a maximum supporting area, thereby appreciably reducing time and labor, incident to a plurality of operations; said trays likewise being convenient for supporting variant species of objects, thus being especially adaptable for use in hospital service, for segregating medicinal preparations, etc., from surgical instruments, bandages, etc.

A further object of the invention is to provide a collapsible device which may be folded relatively flat for occupying a minimum amount of space when not in use.

Other objects as well as the nature, characteristic feature and scope of my invention will be more readily understood from the following description taken in connection with the accompanying drawings and pointed out in the claims forming a part of this specification.

Referring to the drawings: Figure 1 is a side elevational view of the tray constructed in accordance with my invention, Fig. 2 is a similar view showing the device in a fully collapsed position, Fig. 3 is a cross sectional view of the device showing the lowermost tray in top plan, Fig. 4 is a bottom plan view of the uppermost tray, and Fig. 5 is a bottom plan view of the lowermost tray.

In the drawings wherein is illustrated the preferred embodiment of this invention, a frame generally designated 1 is provided comprising a plurality of channel bars preferably made of iron and pivotally conjoined to assume a lazy-tong structure, indicated at 2. Each side of the frame 1 comprises two pairs of channel irons, the proximate ends thereof being pivotally connected through the medium of a bolt or the like. The free terminals of the lower pairs of channel irons, on each side of the frame are in connection with cross bars 3 and 6. The cross bar 3 is fixedly mounted in frames 4, the latter having rollers 5 suitably journaled therein, while the rod 6 has wheels 7 revolubly mounted thereon.

A rod 8 is mounted in the upper ends of the channel-irons in the rear of the frame, and a rod 9 mounted in the front of the frame. The rods 8 and 9 serve in the dual capacity of bracing the opposite sides of the frame 1, and supporting the upper tray, which is designated in the drawings at 10. The tray 10 in the present instance is of an oblong configuration, although it is to be understood that any other desired configuration may be used, consistent with the capacity in which it is adapted to serve, the present form being shown merely to illustrate the application of the invention. The lower face of the tray 10 has a reinforcing plate 11 associated therewith, which is provided adjacent its opposite lateral margins with longitudinally extending grooves 12, in which are slidably mounted, rods 13, the latter being preferably of a circular configuration in cross section and having their rearward ends curved to provide hooks, the bills 14 of which are adapted to engage the rod 8. The opposite end of each of the rods 13 has a flat portion 15 formed thereon, which is slidably engaged with the rod 9. The rods 13 are slidably mounted in the grooves 12, whereby the tray may be moved longitudinally of the frame, so as to be brought into close proximity with the occupant of a bed, etc., or when the device is used for dining room service, the tray can be brought into contact with the surface of the table to facilitate removal of the objects. It will be noted that loop-straps 16 are arranged at intervals on the reinforcing plate 11, so as to provide guides for the rods 13 and prevent accidental displacement of the tray from the frame. The rearward of the loop-straps 16 are likewise adapted to abut the bills 14 of the hooked ends of the rods 13, in order to limit the movement of the tray 10.

A plurality of rods 17 extend transversely through the frame at the jointure of the upper and lower channel-irons, and in conjunction with bracing the channel-irons against lateral displacement, likewise serve as a supporting medium for a lower tray 18, the latter in the present instance being

similar in configuration to the tray 10, although it may also be of a variant size and configuration, if so desired. Loop-straps 19 are carried by the lower face of the tray 18 and are adapted to embrace one of the rods 17, whereby longitudinal displacement of the tray 18 is prevented. A strap 20 is likewise carried by the lower face of the tray 18 and is adapted for slidable engagement with the other of the rods 17, to limit the movement of the tray, at the same time permitting sufficient movement of the frame for entirely collapsing the latter, to occupy a minimum amount of space. An operating handle 21 is engaged with the rear of the frame, the handle being of the usual or any desired form and being secured to the upper rear-channel-iron.

In operation it is preferable that the bills 14 of the hooks formed upon the rear ends of the rods 13, be engaged with the rod 8 in order to preclude possibility of the tray being accidentally displaced during transportation, this being possible should undue pressure be exerted on the tray, by the carrying of excessive weights thereon, etc. During transportation, the device will be set up in approximately the position shown in Fig. 1 and is operated by exerting pressure on the handle 21. In removing the contents of the tray 10, it will be found convenient to actuate the tray longitudinally on the rods 13, and into engagement with a table or other supporting structure which is to receive objects held by the tray, or which is holding objects which are to be transported to the tray. The hooks 14 are not necessary to sustain the frame in its most extended position under ordinary conditions, but are provided in order to positively prevent the frame from collapsing during transportation, or when excessive weight is placed thereon. When it is desired to collapse the tray into the position shown in Fig. 2, it is merely necessary to exert pressure on the upper tray 10, after the hooks 14 have been disengaged from the rod 8, the exertion of pressure causing the collapsing of the frame and the relative movement of the trays 10 and 18 until they are in relatively close proximity.

It will be understood that the above description and accompanying drawings comprehend only the general and preferred embodiment of my invention and that various minor changes in details of construction, proportion and arrangement of parts may be made within the scope of the appended claims without sacrificing any of the advantages of my invention.

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

1. A wheel tray including a frame, rods associated with the upper end of said frame, and a tray permanently and slidably associated with said rods to move in a limited plane, for engagement with a support to facilitate removal of the contents of tray.

2. A wheel tray including a collapsible frame, a plurality of superposed trays associated with said frame, one of said trays being movable longitudinally of the frame for facilitating removal of the contents thereof, and means to prevent the collapsing of said frame during transportation.

3. A wheel tray including a collapsible frame, a plurality of trays associated with said frame, one of which is slidable to facilitate removal of its contents, and means in connection with one of said trays for engagement with the frame to prevent collapsing of the latter, said means being disengageable when the frame is to be collapsed, without the removal of said tray.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. MOORE.

Witnesses:
L. F. WHITACRE,
N. P. KNAPP.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."