May 3, 1966 G. L. DAY ET AL 3,249,070

INSTRUMENT TRAY WITH DISPOSABLE FIELD SHEET

Filed Sept. 11, 1963

Fig. 1

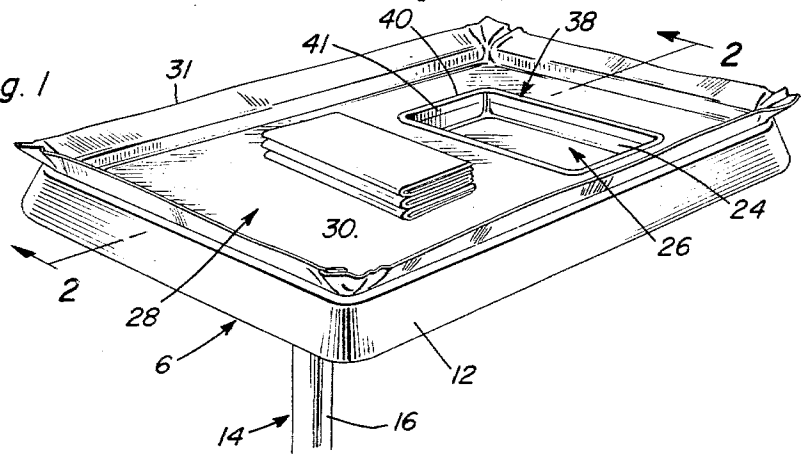


Fig. 2

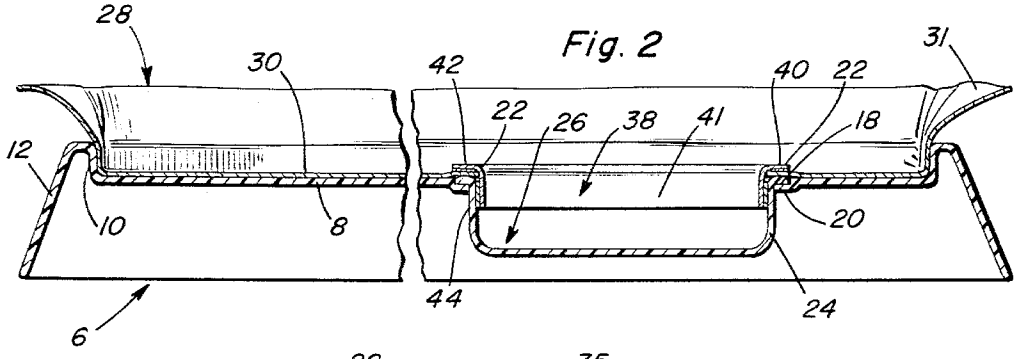


Fig. 3

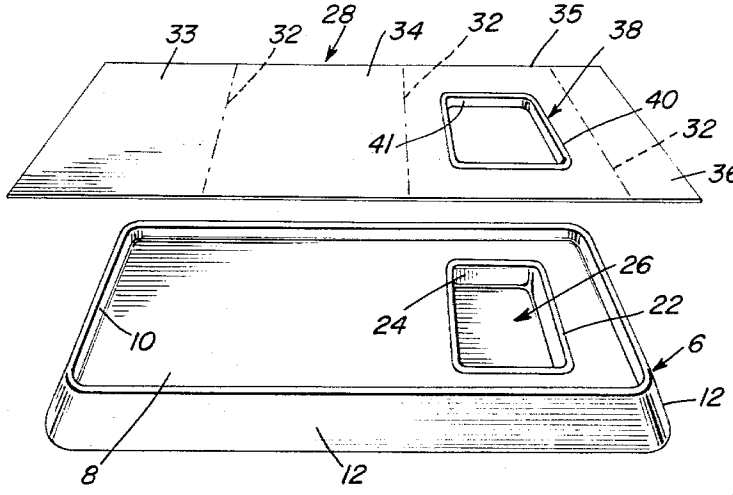
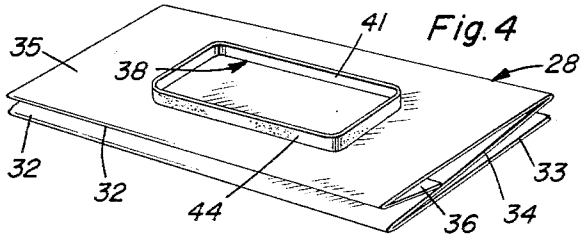


Fig. 4



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INSTRUMENT TRAY WITH DISPOSABLE FIELD SHEET

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The present invention relates to a multipurpose tray which is expressly designed and adapted for out-of-doors or so-called field use, the same being expressly designed and adapted to be supported atop a conventional-type field stand and functioning to not only support an attachable and detachable instrument pan, but to provide additional space for bandages, towels, medicines and the like which are then conveniently available for expedient use.

Stated somewhat more specifically the invention is characterized by the aforementioned multipurpose doctor's and nurse's tray and, in addition, to a readily applicable and removable liner, more explicitly, a liner which provides a protective cover for vulnerable and contaminable surfaces of the receiver portion of the tray.

Novelty is also predicated upon the specially constructed field-type tray and the insertable and removable throwaway type sheet or liner, but pertains to a liner which is provided with a rigidifying adapter frame cooperable with a pan opening in said liner or cover and wherein the members which make up the frame proper depend through and below the opening, the exterior surfaces of said members being coated with adhesive media which when in use is detachably connectible with coacting surface portions of the surgical instrument pan.

Briefly summarized the invention comprises a lightweight but strong and durable field tray having a top side embodying a shallow depression defining the miscellaneous article receiver and retaining portion. The bottom of the receiver is provided with an opening which is such in size and shape that it permits placement of a surgical instrument pan therein. In addition to the tray and pan the overall combination includes a readily applicable and removable liner which is made of disposable sheet material of requisite toughness. This liner constitutes a cover for the vulnerable surfaces of the depressed or receiver portion. Not only is the cover of a size to fit and spread over the contaminable surfaces, it is of an area that the marginal edge portions extend well beyond the corresponding marginal portions of the tray to increase the storage area and to facilitate application and removal. And, as suggested, the liner or cover is provided with an adhesively retained adapter frame.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a view in perspective of the complete ready-to-use assemblage, that is, the tray, instrument pan, surface protecting and protecting liner and its attaching and retaining adapter;

FIGURE 2 is a view on a larger scale with parts broken away taken on the plane of the section line 2—2 of FIG. 1;

FIGURE 3 is a view in perspective of the tray and pan at the bottom and the applicable and removable liner or cover removed therefrom; and

FIGURE 4 is a view in perspective of the liner or cover in its folded form.

With reference first to FIG. 3 it will be evident that the aforementioned multipurpose sheet material (plastic or the like) tray is denoted as a structural entity by the numeral 6. It is preferably, but not necessarily rectangular

in plan and the entire top portion thereof is depressed as at 8 and 10 to define a relatively shallow receiver construed as the tray proper. A relatively deep endless depending skirt 12 not only reinforces and assists one in carrying and otherwise handling the tray, the angular slope thereof adapts this part of the tray so that it may be removably fitted upon a standard size field-type instrument stand denoted generally by the numeral 14 in FIG. 1 and including a suitable post or upright 16 and head means at its top (not detailed) to fit telescopingly into the skirt and to afford a firm support therefor. In FIG. 2 it will be seen that adjacent one end portion and somewhat centralized the bottom of the receiver is provided with a substantially rectangular opening 18 and this opening is considered as including a complemental downwardly offset endless flange 20 which constitutes a supporting ledge and, in fact, supports an outstanding lip 22 at the top of the rim 24 of the applicable and removable surgical instrument pan 26. The receiver portion surrounding the opening 18 and pan 26 provides support surfaces for sterile gauze and equivalent bandages, medicaments and such accessories and appliances as are customarily used.

The readily applicable and removable tray liner provides, when in use in the manner illustrated in FIGS. 1 and 2, a protective cover. The main or body portion of the cover 28 is denoted at 30 and the edge portion at 31. If desired and at the time of manufacture this liner or cover may be provided, FIG. 3, with spaced parallel fold or scorelines as at 32 defining four substantially rectangular portions 33, 34, 35 and 36. These folds permit the portions to be folded to the compact and convenient form illustrated in FIG. 4. The area portion 35 is provided with a rectangular opening which corresponds to the aforementioned opening 18 and which is alignable therewith. This opening is reinforced by a comparatively rigid rectangular adapter frame which is denoted by the numeral 38. This frame may be of plastic material or perhaps even suitable moistureproof cardboard. It embodies a horizontal lip portion 40 which overlies the edge of the opening and is adhesively attached as at 42. The exterior surfaces of the frame members are coated with adhesive media 44 which when used as illustrated in FIG. 2 is temporarily fastened to the interior upper surfaces of the rim 24 of the pan 26.

It will be evident that the invention, the improved tray with applicable and removable instrument pan and the liner or cover means, provides a feasible and reliable structure for use which is reasonably sterile when employed in the field by reason of the fact that the contaminable and normally unprotected surfaces of the receiver or tray proper are protectively covered by a single use sterile liner or cover. The adapter frame orients the location and positioning of the liner whereupon the body portion can then be spread out over the surface 8 and the margins thereof tucked against the upstanding wall 10 with the surplus edge portions 31 available to facilitate lifting and removing the liner after it has served its intended purpose. The cover or liner is made of non-absorbent soft disposable paper of a satisfactory grade which manufacturers can supply. By providing the rigid adapter frame 38 the latter functions as a means for piloting the same into the position illustrated in FIGS. 1 and 2 whereby after the adhesive material 44 is applied to the pan rim 24 no difficulty can then be encountered in applying the sheet. Outdoor and field requirements necessitate the adoption and use of component parts in the novel environmental relationship herein shown and described. It is submitted therefore that the invention will serve well the purposes for which it is intended. The fact that the skirt portions 12 forming the margin of the tray are deep and sloped or slanted in the manner illustrated it will be evident that when the tray is placed upon

an instrument stand, the head of the latter (not shown) will thus provide an effective base and support and will permit the parts to be separably wedged together.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination, a multipurpose doctor's tray expressly constructed and adapted for removable support atop an out-of-doors relatively stationary field stand, said tray having a top portion embodying a shallow depression defining a receiver, said receiver being of an area in plan for convenient accessible retention of bandages, towels and various emergency medicaments, the bottom of said receiver being provided with a surgical instrument pan accommodating and receiving opening of a prescribed size and shape, the marginal edges of said opening being provided with a downwardly offset lip-like flange constituting a supporting ledge, a surgical instrument containing pan having a body portion fitted removably through said opening and having a marginal rim, the upper edge of the rim of said pan being provided with an outstanding suspension flange and said suspension flange being removably seated on said ledge-flange and removably supporting said pan for expedient use, and, in combination, a readily applicable and removable liner constituting and providing a sanitary cover for the overall exposed upwardly facing surfaces of said receiver, said cover being made of sterile throw-away sheet material and being of a plan size when in use that marginal edge portions of said cover project for convenient use beyond corresponding marginal edge portions of said tray, said cover being provided with opening means registrable with the first-named opening means and having an integral complemental relatively rigid adapter, said adapter being lateral to the plane of the cover and, when in use, providing a depending frame which is both designed and adapted to fit telescopingly and conformingly into the interior upper portion of and adapted for connection to said instrument pan.

2. A multipurpose doctor's tray constructed for removable support atop a relatively stationary field stand, said tray having a top side embodying a shallow depression defining the receiver portion of the tray, the bottom of said receiver portion being provided with an opening of a prescribed size and shape to accommodatingly permit passage therethrough of an insertable and removable pan for surgical instruments, and having a marginal rim, and cooperating means between said rim and the marginal edge portions of the opening for seating and removably supporting said pan in readiness for expedient use, and, in combination, a readily insertable and removable liner constituting a protective cover for the vulnerable and contaminable surfaces of said receiver portion, said liner being of a size that surplus marginal edge portions of the liner project beyond corresponding marginal edge portions of the tray, and said liner being made of throw-away sheet material and provided with opening means communicable with the first-named opening, said opening means having a companion relatively rigid adapter including a depending frame designed and adapted to fit telescopically into the interior upper portion of said instrument pan, and the component portions of said frame being exteriorly provided with adhesive media which is adapted to be temporarily secured to the cooperating surfaces of said instrument pan.

3. A multipurpose doctor's tray expressly constructed and adapted for support on an out-of-doors relatively stationary field-stand, said tray having a top side embodying a shallow depression defining a receiver for bandages, towels and medicaments, the bottom of said receiver portion being provided with an opening of a prescribed shape to accommodatingly permit passage therethrough of an insertable and removable pan for surgical instruments, a surgical instrument pan fitted removably through said opening and having a marginal rim and cooperating means between said rim and the marginal edge portions of the opening for seating and removably supporting said pan in readiness for expedient use, a readily insertable and removable protective cover for the contaminable surfaces of said receiver portion, said cover being made of sterile throwaway material, being provided with opening means registrable with the first-named opening and said opening means having a relatively rigid adapter including a depending frame designed and adapted to fit telescopically into the interior upper portion of said pan and adapted to be temporarily secured to the cooperating surfaces of said instrument pan, and said frame also having a horizontal flange overlapping and attached to marginal edge portions of the opening means in said cover.

4. In a structure of the class described, a moldable plastic horizontally disposable surgical instrument pan comprising an elongated tray having an outwardly and downwardly sloping marginal apron and provided with a shallow depressed top portion defining the tray proper, said depressed portion being provided adjacent one transverse end thereof with a substantially rectangular opening and said opening being provided around its marginal edge portion with a downwardly offset flange constituting a supporting ledge, said ledge being adapted to support a conventional pan, and a surgical instrument pan removably fitted through said opening and depending below the same and having an upstanding rim, said rim being provided with an outstanding support lip and said lip being removably seated on and supported by said ledge, a cover for the vulnerable upwardly facing surfaces of said tray, said cover comprising a sheet of disposable foldable paper, said sheet being of a general rectangular form in plan and having scorelines thereon permitting the same to be compactly folded into conveniently usable folded portions, at least one of said portions being provided with a substantially rectangular instrument pan accommodating an opening, said opening being in turn provided with a reinforcing adapter frame having a marginal flange projecting beyond the marginal edges of the opening and secured to the cover and having the frame proper depending through and beyond said pan accommodating opening, the exterior surfaces of the frame members being provided with adhesive media which may be, when in use, attached to coacting surface portions of the coacting instrument plan.

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