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PIVOTED TOP FOR AN OVERBED TABLE OR THE LIKE

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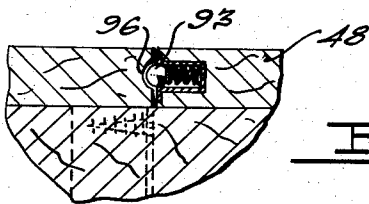
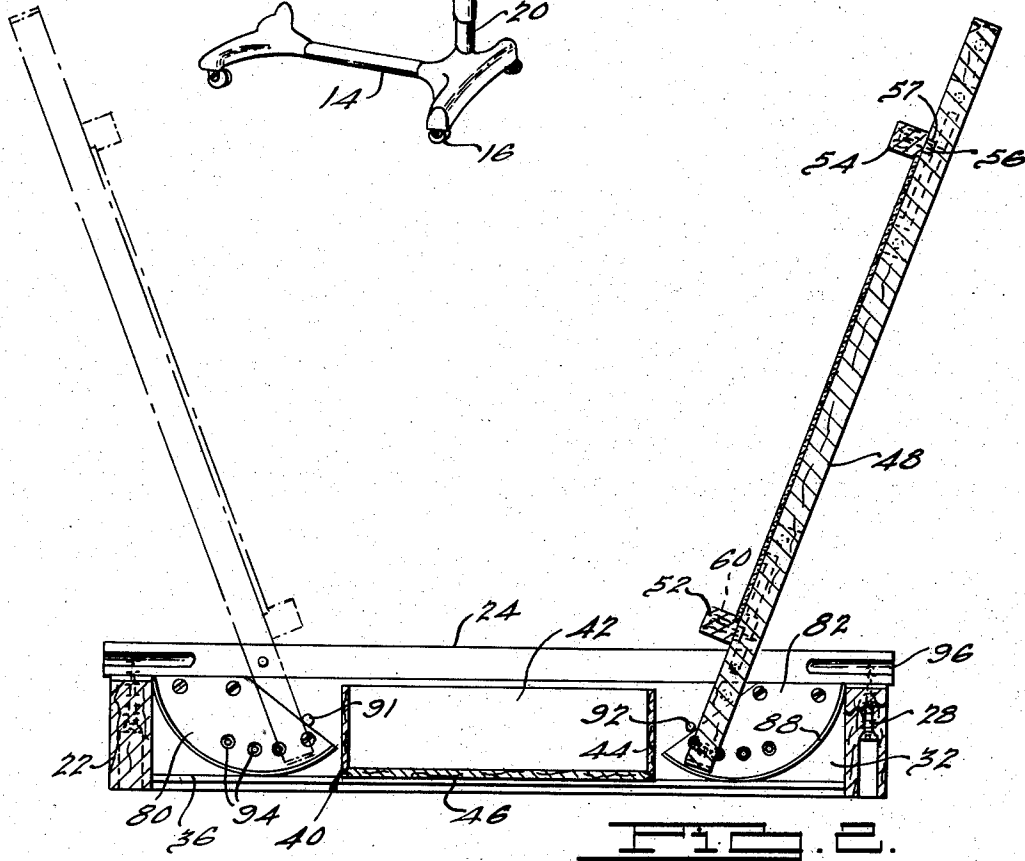
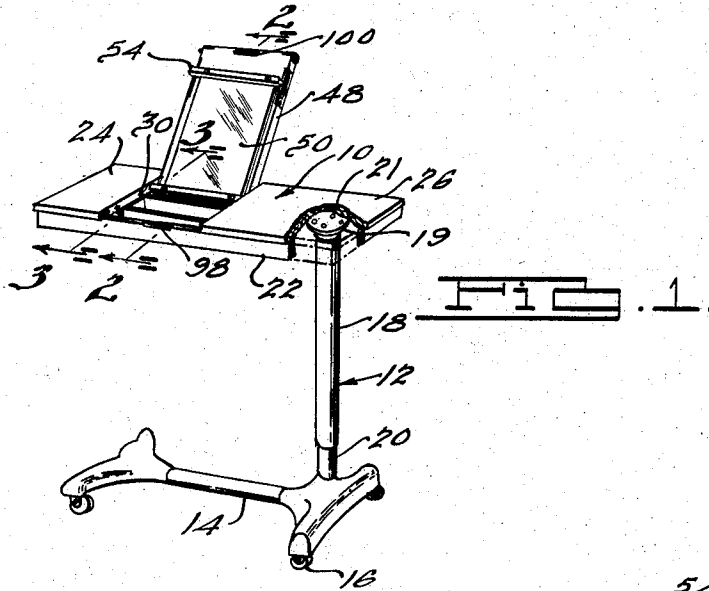


FIG. 3.

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PIVOTED TOP FOR AN OVERBED TABLE OR THE LIKE

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4 Claims. (Cl. 311—38)

This invention relates to a pivot mounting for a swinging panel or cover. The mounting has general utility but is primarily adapted and pre-eminently suited for use on the openable top cover with which overbed tables of the type used in hospitals and sickrooms conventionally are equipped.

An object of the invention is to overcome disadvantages inherent in conventional overbed tables of the indicated character and to provide an improved overbed table which incorporates a unique mounting for the cover conventionally employed for the compartment with which tables of this type usually are equipped, the cover being operable from either side of the table for convenience and to obviate the necessity of providing both right and left hand tables.

Another object of the invention is to provide an improved overbed table having a compartment cover that can be locked in the closed position so as to function as a portion of the table top; that may be opened easily and quickly from either side of the table so as to function as a support for books, magazines and the like; that can be readily positioned for maximum reading convenience and comfort; and that can be latched in any one of several positions.

With the above as well as other, and in certain cases more detailed objects in view, which will become apparent from the following description and the appended claims, a preferred embodiment of the invention is shown in the accompanying drawings throughout the several views of which corresponding reference characters designate corresponding parts and wherein:

Fig. 1 is a perspective view of an overbed table embodying the present invention;

Fig. 2 is an enlarged, transverse sectional view taken on the line 2—2 of Fig. 1 and illustrating the manner in which the cover can be raised from either side of the table;

Fig. 3 is an enlarged, transverse sectional view taken on the line 3—3 of Fig. 1 but showing the cover closed;

Fig. 4 is an enlarged, fragmentary, vertical sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is an enlarged, fragmentary, vertical sectional view taken on the line 5—5 of Fig. 3; and

Fig. 6 is a transverse sectional view similar to Fig. 3 but showing the cover partially open.

Referring to the drawings, the numeral 10 designates a table top mounted at one end thereof on an upright standard, generally designated 12, having an elongated base 14 extending under the top 10 and mobilized by casters 16, which facilitate moving the table to any desired location. The standard 12 and the base 14 are of conventional design and construction and the upright standard here shown comprises telescoping sections 18 and 20 which permit vertical adjustment of the table while any suitable means, such as set screws (not shown) may be provided to lock the sections in a selected, vertically adjusted position. The upper end portion of the section 18 is enlarged to form a flange 19 which is se-

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cured to the top 10 by any suitable means, such as the screws 21.

The top 10 includes an elongated, rectangular frame 22 which carries top panels 24 and 26 mounted at opposite ends of the frame and securely fastened thereto by screws 28 or the like. As best shown in Fig. 1, the panels 24 and 26 are spaced apart on the frame 22 to define an opening 30 therebetween and a pair of partition members 32 and 34 extend transversely of the frame at opposite sides of the openings 30 while longitudinally extending tray rails 36 and 38 are rigidly secured to the partition members 32 and 34, respectively, at a position near, but spaced from, the lower edge thereof. The tray rails 36 and 38 project from the partition members inwardly into the opening 30 and are adapted to support a rectangularly shaped tray, generally designated 40, having side and end walls, such as 42 and 44. The top of the tray is open while the side portions of horizontally disposed bottom panel 46, rest on the tray rails 36 and 38, access to the tray being obtained through the opening 30.

The tray 40 is a convenient storage place for cosmetics, shaving materials, cigarettes and other relatively small articles and is disposed substantially closer to the end of the table top 10 remote from the standard 12 in the manner disclosed in my Patent No. 2,640,748, issued June 2, 1953, so that ready access may be had to the tray by a person lying comfortably away from the side of the bed at which the table is positioned.

The opening 30 is closed by a cover 48 which is of such size as to substantially fill the opening 30 and may be raised from either side of the table in the manner shown in Fig. 2. When the cover is closed, the top surface thereof lies in the same plane as the top of the panels 24 and 26 so that a single flat surface is obtained. The cover may be opened selectively from either end and pivoted through an obtuse angle about a horizontally extending axis disposed at a position near, but spaced from, the opposite end of the cover so as to function as a support for books, magazines and the like. A mirror 50 is provided on the inner surface of the cover 48 and is readily available for use when the cover is opened from either side of the table, the mirror being retained by bars 52 and 54. One side of each bar overlaps an end portion of the mirror and each bar is provided with a centrally disposed tenon 56 adapted to fit a mortise 57 extending transversely of the cover on the inner side thereof while screws, such as 60, hold the bars securely in place. The bars 52 and 54 also function as abutment stops to support books and the like when the cover is raised. Such a one piece cover construction provides a relatively large mirror area and a relatively large book rest area which may be used conveniently by a person lying in bed.

A feature of the present invention is the means provided for mounting the cover which enables the cover to be opened selectively from either side of the table. To this end, a pair of bearing plates 62 and 64 are fastened by screws 63 to each side of the cover 48 at opposite ends thereof. As best seen in Figs. 3 and 6, each bearing plate is provided with a stepped slot, generally designated 66, the slot including a relatively long, horizontally extending lower step portion 68 which extends inwardly in vertically spaced relation from a relatively long, horizontally extending upper step portion 70 while the inner end of the upper step portion 70 is joined to the outer end of the lower step portion 68 by a relatively short vertical portion 72. The inner end of the lower step portion 68 is extended to and through the lower edge of the bearing plate by a relatively short vertical slot 74.

A pair of spaced pins 76 and 78 are fixed in each top panel 24 and 26 and these pins extend inwardly into the

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opening 30, each pair of pins being positioned to engage in the slot 66 in the adjacent bearing plate. When the cover 48 is closed, as shown in Fig. 3, the pins 76 and 78 are positioned at the inner ends of the upper slots 70 of each bearing plate 62 and 64. The two pins 76 at one end of the cover 48 bear against the shoulders defined by the intermediate slot portions 72 in bearing plates 62 to prevent movement of the table to the left, as viewed in Fig. 3, and the two pins 78 at the opposite ends of the cover bear against the shoulders defined by the intermediate slot portions 72 in bearing plates 64 to prevent movement of the cover plate to the right, as viewed in Fig. 3. It will thus be seen that with the above construction, the bearing plates 62 and 64 co-act with the pins 76 and 78 to hold the closed cover 48 against horizontal transverse movement.

A pair of support members 80 and 82 is fastened by screws 86 to the inner side of each partition 32 and 34 at opposite ends thereof. Each of the support members 80 and 82 is provided at the bottom thereof with an arcuately formed, inwardly projecting bearing flange portion 88, the radius of the arc of each flange portion being substantially the distance from the outer end of the upper slot 68 to the adjacent outer edge of the cover 48 plus one-half the diameter of the pin 76. The flange portions 88 on the plates 80 support the left hand end of the cover 48 when the latter is opened as shown by broken lines in Fig. 2 and the corresponding flange portions of the plates 82 support the right hand end of the cover when it is opened as shown by full lines in Fig. 2. Manifestly, the flanges 88 also guide and carry the weight of the cover 48 when it is open and during opening and closing movements thereof. Wear plates 90 are provided on the ends of the cover 48.

In order to limit opening movement of the cover 48, pins 91 and 92 are fixed in the partitions 32 and 34. The pins 91 and 92 are positioned to engage the inner surface of the cover member after it has rotated through a predetermined arc and prevent the end portions of the cover from disengaging from the flange portions 88.

For the purposes of latching the cover 48 in a selected partially open position as it is rotated about either pivotal axis, a spring biased detent 93 is fitted in the edges of the cover opposite each support member and is adapted to selectively enter one end of a plurality of arcuately spaced recesses 94, formed in the vertically extending walls of each support member.

Grooves 96 are formed in the inner edges of the top members 24 and 26 near the ends thereof, in order to facilitate translatable movement of the cover 48, which will be explained hereinafter in greater detail, and to prevent the detents 93 from engaging the inner edges of the top members 24 and 26.

For the purpose of enabling the cover 48 to be easily grasped when in the closed position, the upper edge portion 98 of the frame 22 is cut away on each end of the opening 30 and a groove 100 is also provided in the lower surface of the cover member at a position near, but spaced from, each end thereof.

The operation of the cover 48 is best understood by considering the movement of the cover in increments and since both ends of the cover are identically mounted, a detailed description of the raising of one end will suffice to explain the operation of the cover.

Assuming that it is desired to raise the left end of the cover 48, as viewed in Fig. 3, the left end portion of the cover is lifted slightly. This movement is permitted by the vertical intermediate slot portions 72 which travel upwardly on pins 76. In this position of the cover 48 the pins 76 are in register with the lower step portions 68 of the grooves in the bearing plates 62 while the pins 78 are in the upper step portion 70 of the grooves in the bearing plates 64. The cover 48 is then moved to the left with respect to the top panels 24 and 26 until the pins 76 and 78 abut the ends of their associated grooves,

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as shown in Fig. 6. With the cover 48 in this position, the left end of the cover can be swung upwardly so that the vertically extending open end portions 74 of the grooves 66 pass the pins 76 and disengage the bearing plates 62 from the pins 76 while the pins 78 act as pivots. As the cover rotates, the wear plates 90 at the right end of the cover engage the arcuate flanges 88 of the adjacent support members 82 so that the cover is guided and supported during swinging movement thereof. The cover 48 may then be swung through any desired angle until it abuts the pins 92. During such swinging movement of the cover 48, the detents 93 at the right end of the cover selectively engage the arcuate spaced recesses 94 to latch the cover.

From the above description, it will be appreciated that the present invention provides a cover which may be easily opened by an invalid confined in bed. It will also be appreciated that there are no exposed arms or braces which require separate adjustment or which are likely to become entangled in the bed covering.

While a preferred embodiment of the invention has been shown and described, it will be understood that various changes and modifications may be made without departing from the spirit and scope of the invention.

What is claimed is:

1. An overbed table construction including, in combination, a horizontally extending top member having an opening therein, a cover member for the opening mounted to be selectively opened from opposite ends thereof, a pair of spaced bearing members fixed to each of two opposite edges of said cover member, each of said bearing members having a spaced stepped groove formed therein, a pair of spaced fixed pivot members extending into the opening from each of two opposite sides and positioned to releasably engage the grooves in the adjacent bearing member, a pair of spaced support members fixed on each of two opposite sides of said opening, each of said support members having an arcuate inwardly extending flange positioned to support and guide said cover member during rotary movement thereof, and means for releasably latching said cover in a selected inclined position, said last mentioned means comprising a pair of spaced spring biased detents fixed to each of two opposite sides of said cover member and positioned to selectively engage one of a plurality of arcuately spaced recesses in the adjacent support member.

2. Apparatus comprising a supporting structure; a generally rectangular panel on said supporting structure, a pin and slot connection at each corner of the panel mounting the latter for sliding and pivotal movement, each slot having communicating offset portions, an abutment at the juncture of said offset portions and a side opening at the inner end thereof, said pins normally disposed in one offset portion of the slots and co-acting with said abutments to limit sliding movement of the panel, pivotal movement of the panel on the pins at one end thereof disengaging the pins at the opposite end from the co-operating abutments to release said panel for free sliding movement within limits defined by the slots, sliding movement of the panel to one limit of its travel bringing certain of said pins into register with associated side openings and said certain pins being movable through said openings to disengage said slots and said panel and thus releasing the panel for pivotal movement; and means for supporting said panel on said structure during said pivotal movement.

3. Apparatus comprising a supporting structure, a generally rectangular horizontal panel on said supporting structure, a pin and slot connection at each corner of the panel mounting the latter for sliding and pivotal movement, the outer portion of each slot being offset upwardly from the inner portion thereof and the portion of the slot which interconnects the offset portions defining an abutment, all of the pins being disposed in the outer upwardly offset portions of the slots and bearing

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inwardly against said abutments in one position of the panel to prevent sliding movement of the latter, said panel when so positioned being liftable from either end to disengage the pins in the near slots from their respective abutments and to release the panel for sliding movement in the direction of the raised end, all of said slots having side openings at the inner ends thereof and the pins at the inner ends of the slots being movable through said openings to disengage said slots and said panel; and bearing members on said supporting structure positioned to engage the ends of the panel and to support the latter during pivotal movement thereof on said pins.

4. In a construction having a top member defining an opening, a cover member for the opening mounted to be opened selectively from opposite ends thereof, said cover member having a pair of spaced, stepped grooves in one edge thereof opening downwardly through the undersurface of the cover, a pair of spaced pivot members fixed in said top member positioned in said grooves and movable into and out of said grooves through said openings, said spaced pivot members coacting with the stepped portions of said grooves to releasably lock said cover member in a closed position and with terminal portions

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of said grooves to pivotally connect said cover member to said top member for combined translatory and rotary movement from a closed position to an open position, a pair of spaced support members fixed to said top member, each of said support members having an arcuate inwardly extending flange positioned to support and guide said cover member during rotary movement thereof, and means for releasably latching said cover in a selected inclined position.

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