Jan. 10, 1956 H. HOLMBERG 2,730,422

OVERBED TABLE

Filed March 15, 1954 3 Sheets-Sheet 1

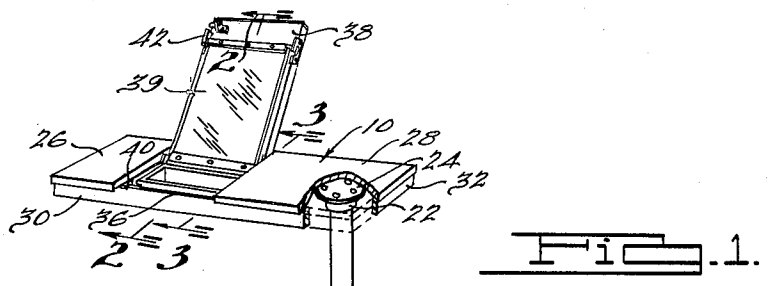


Fig. 1.

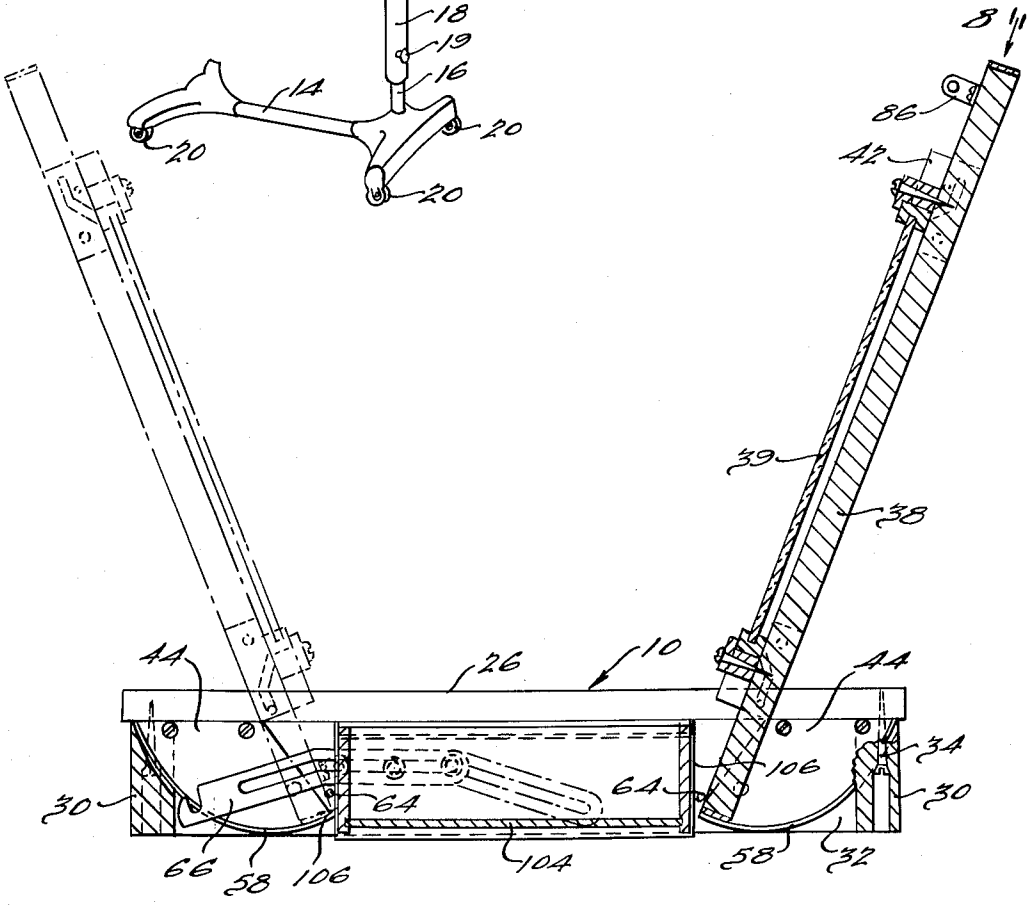


Fig. 2.

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OVERBED TABLE

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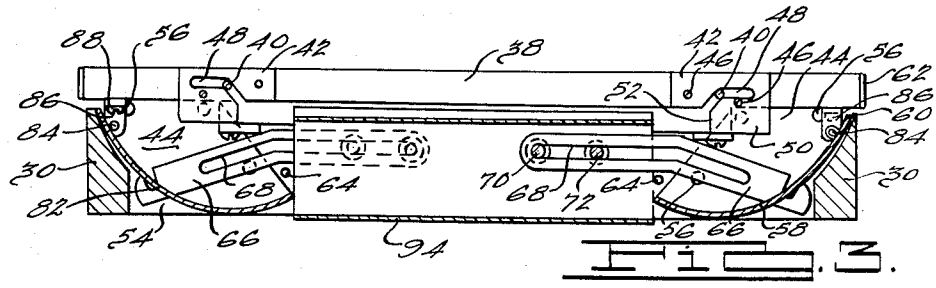


FIG. 3.

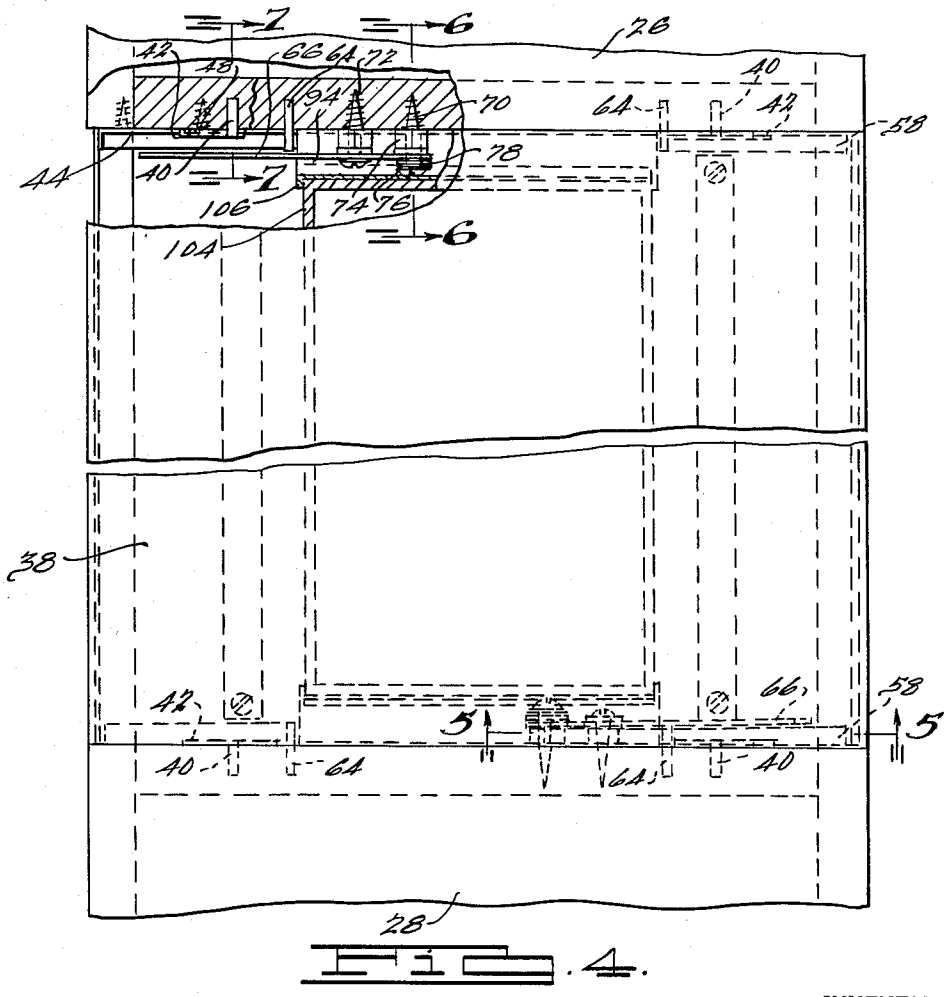


FIG. 4.

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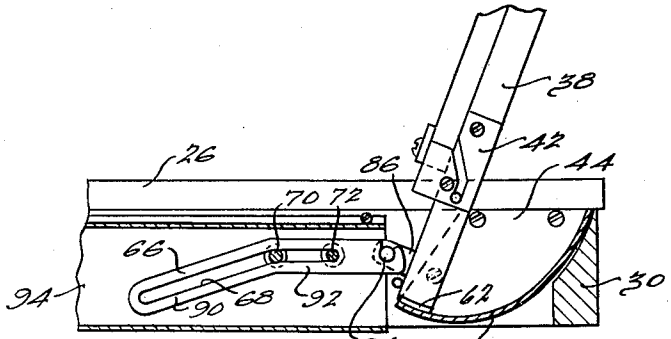


Fig. 5.

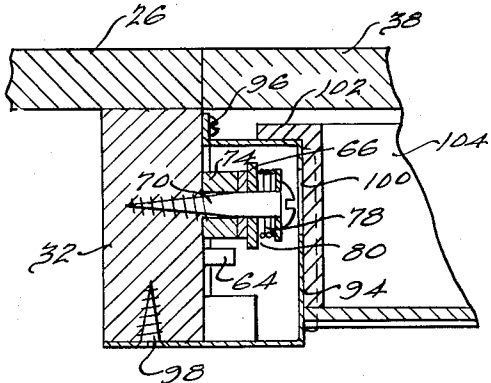


Fig. 6.

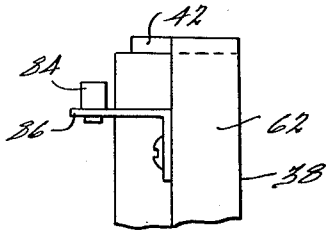


Fig. 8.

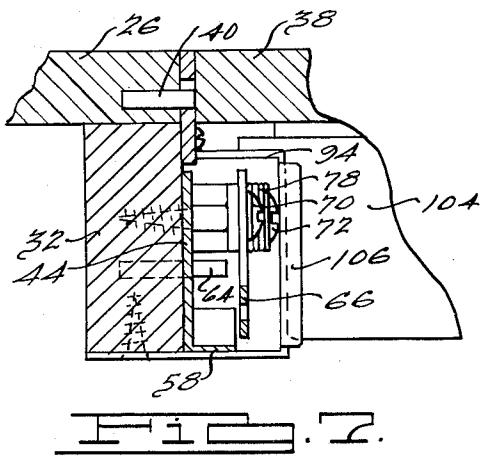


Fig. 7.

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United States Patent Office 2,730,422 Patented Jan. 10, 1956

2,730,422

OVERBED TABLE

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Application March 15, 1954, Serial No. 416,354

11 Claims. (Cl. 312—316)

This invention relates to new and useful improvements in overbed tables.

Overbed tables conventionally are made with a top which projects laterally from an upright supporting standard. The standard usually is vertically adjustable to position the table at a selected height most convenient to the user. In practice, the top is pushed across the bed from the side with the top suitably spaced above the bed so as to provide a convenient supporting surface. These tables have a variety of uses. For example, they may be used as a dining table to support a patient's meals or as a writing desk or as a support for a book or magazine. Also, these tables conventionally are equipped with a small drawer at one side thereof in which various sundries such as cigarettes, playing cards, cosmetics and the like can be kept.

Conventional overbed tables of the type referred to above have the disadvantage that the drawer is accessible with the supporting standard at one side only of the bed. If the table is used with a standard at the wrong side of the bed the drawer opens toward the foot of the bed and is practically inaccessible to the patient. Also, the top of a conventional table usually is fixedly mounted in a horizontal position and thus does not position a book or the like properly for reading by a patient lying on the bed.

An important object of the present invention is to provide an overbed table having a central compartment in the top equipped with a top cover that can be opened from either side of the table so as to make the compartment readily accessible with the standard disposed at either side of the bed.

Another object of the invention is to provide an overbed table of the above-mentioned character wherein the cover for the compartment is flush with the table top so that when closed it serves as a part of the top and also as a cover for the compartment.

Still another object of the invention is to provide an overbed table of the above-mentioned character having a novel pivot mounting for the cover which permits the latter to be opened as easily from one side of the table as from the other.

Yet another object of the invention is to provide an overbed table of the above-mentioned character wherein the pivot mountings for the cover hold the latter securely stationary when closed and flush with the table top.

A further object of the invention is to provide an overbed table of the above-mentioned character wherein the cover is adapted for use as a support for books and the like and which includes means for holding the cover in a selected partially open position so that it can be disposed to position the book for maximum reading convenience.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the drawings forming a part of this specification, wherein like numerals are employed to designate like parts throughout the same:

Fig. 1 is a perspective view of an overbed table embodying the invention showing parts broken away for clearness of illustration and illustrating the cover in an open position;

Fig. 2 is an enlarged, vertical, sectional view taken on the line 2—2 of Fig. 1 illustrating the manner in which the cover is open from either side of the table;

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

Fig. 4 is a fragmentary, plan view of the table top, parts of the top being broken away and shown in section to better illustrate a part of the pivot mounting for the cover;

Fig. 5 is a fragmentary, sectional view taken on the line 5—5 of Fig. 4 but showing the cover open instead of closed;

Fig. 6 is a fragmentary, vertical, sectional view taken on the line 6—6 of Fig. 4;

Fig. 7 is a fragmentary, vertical, sectional view taken on the line 7—7 of Fig. 4; and

Fig. 8 is a fragmentary, elevational view looking in the direction of the arrow 8 in Fig. 2.

As perhaps best shown in Fig. 1, the overbed table embodying the instant invention comprises a top 10 mounted on and fastened to a standard 12 which in turn is carried by a suitable base 14. The instant invention is concerned primarily with the top 10 and the particular supporting means here shown is more or less conventional. It should perhaps be pointed out, however, that the standard 12 is disposed at corresponding ends of the top 10 and of the base 14 so that both the top and the base extend laterally in the same direction from the standard. As a result of this particular relationship between the primary parts of the structure, the base is positioned properly to support the weight of the top 10. Also, this particular unique relationship between the parts permits the table to be used conveniently with a bed (not shown). The top 10 is simply pushed over the bed from the side and the base 14 extends under the bed to support the top in this position. In the form of the invention shown the standard 12 comprises inner and outer telescoping members 16 and 18 that can be adjusted as required to position the top 10 at a desired height. Any suitable or conventional means such as a set screw 19 or the like can be employed to hold the members 16 and 18 in a selected adjusted position. Also, the base 14 preferably is equipped with wheels or casters 20 for convenience in moving the table. The standard 12 is provided at the upper end thereof with a header 22 that supports the top 10, and screws (not shown) extending upwardly into the top through holes 24 in the header hold the top fastened securely to the standard.

The top 10 here shown comprises a pair of spaced top panels 26 and 28 on a generally rectangular frame consisting of longitudinal members 30 which extend along the sides of the panels and transverse members 32 at the ends of the panels. Screws 34 countersunk into the lower edges of the frame members 30 and 32 fasten the top securely thereto. The spacing between the two top panels 26 and 28 provides an opening 36 therebetween, and a movable cover 38 is provided in the opening. When the cover 38 is closed it extends flush with the fixed top panels 26 and 28 and the transverse length of the cover is equal to the width of the top members. Thus, when the cover is closed, it and the top panels 26 and 28 provide a smooth, continuous, generally rectangular table top. It is desirable in most instances that the top be smooth and appropriately finished.

Tables of this type are most commonly used in hospitals by invalids under conditions where they are, of necessity, used in many different ways. For example, the tables are commonly used to support a tray of food

for patients that are able to sit up in bed. Also, the table top **10** can be used conveniently for writing letters and for many similar related and analogous purposes.

In addition to the above, it is desirable in a table of this kind to provide a drawer or compartment **104** in which various sundries can be kept. Manifestly, it is not possible or convenient in every instance to position the table at one side only of the bed. In many situations it may be most convenient to position the table at one side of the bed, and under other circumstances it may be most convenient to have the table at the opposite side of the bed. Consequently, it is desirable that the drawer or compartment **104** be equally accessible from either side of the table.

Also, it is desirable to provide the table with an upwardly swinging panel **38** that can be used to support a book or the like and to provide the undersurface of this panel with a mirror **39** that can be conveniently used by the person lying or sitting on the bed. The same problem is presented by the panel **38** as with the drawer. Either two panels must be provided, each operable from opposite sides of the table, or, a single panel must be provided that can be opened or raised from either side of the table. The latter expedient is preferred in the interest of economy of construction and simplicity of operation.

It is a feature of the present invention that a compartment is incorporated in the top **10** below the cover **38** and that the latter is uniquely mounted so that it can be raised from either side of the table. When the cover **38** is closed it extends flush with the two top panels **26** and **28** and closes the compartment. On the other hand, when it is opened as shown in Fig. 1 it opens the compartment. Thus the cover **13** serves both as a part of the table top and also as a cover for the compartment. Also, the instant construction is unique in that the cover **38** is positioned behind the compartment, whether it is opened from one side of the table or the other, and this is a matter of some convenience to the user as it disposes of cosmetics or other sundries kept in the compartment for ready accessibility and positions the mirror on the undersurface of the cover where it can be used most conveniently.

The manner in which the cover **38** is mounted for convenient operation from either side of the table is now described in detail. Specifically, pairs of pivot mountings are provided at opposite ends of the cover **38**. Thus, four pivot mountings are provided, one at each corner of the cover.

The four pivot mountings are identical and a detailed description of one therefore is sufficient. Each mounting comprises a pin or pivot **40**, a bearing plate **42**, and a supporting plate **44**. The pivot **40** is embedded in the inner edge of the adjacent top panel and it projects for a short distance into the top opening **36**. The bearing plate **42** is fastened to an edge of the cover **38** by screws **46**, and the plate is provided with a downwardly opening slot **48** which receives the pin **40**. The bearing plate **42** is countersunk into the edge of the cover **38** so that it extends flush with the edge, and since the cover fits snugly between the top panels **26** and **28** the pin **40** extends into the slot **48**. As perhaps best shown in Fig. 3, the inner portion of the slot **48** which opens through the bottom edge of the bearing plate **42** is inclined upwardly and outwardly, and the outer portion of the slot is essentially horizontal or parallel with the top surface of the cover **38**. At the outer side thereof, the bearing plate **42** is provided with a downwardly projecting portion **50** which extends below the cover **38**, and it is significant that the inner edge **52** of the projection extends downwardly from the slot **48** so that it provides a guide for the pin **40** as it moves into and out of the slot. The supporting plate **44** is fastened by screws **56** or the like to one or the other of the frame members **32** at the sides of opening **36**. Preferably, the supporting plate **44** is made of relatively thin sheet metal, and the mounting screws **56** are countersunk into the plate so as not to interfere with pivotal movement of the cover **38**. Of particular significance, in so far as the instant invention is concerned, is the fact that each supporting plate **44** is provided with an inwardly projecting arcuate flange **58** disposed concentrically with respect to the pin **40** and spaced radially therefrom a distance equal or substantially equal to the distance between the end of the slot **48** and the adjacent edge of the cover **38**. The longitudinal framepieces **30** are recessed as at **60** below the cover **38** and the flanges **58** extend from the recessed edge of the framepieces.

The pins of the two pivot mountings at each end of the cover **38** are aligned transversely of the opening **36**, and the aligned pins in each instance define a pivot axis for the cover when the latter is opened or closed. Also, the pins **40** are so arranged that they mutually support the cover **38** when the latter is closed. As perhaps best shown in Fig. 3, each of the pins **40** is disposed in its respective slot **48** when the cover **38** is closed, and the pins are disposed at substantially the junctures of the angularly related inner and outer portions of the slots. Thus, since the pins **40** extend inwardly from the stationary top panels **26** and **28**, the cover **38** when in the closed position is in effect suspended on the four pins **40**.

A primary advantage of this arrangement is that it permits the cover **38** to be opened from either side of the table. For example, if the left-hand end of the cover **38** (as viewed in Fig. 3), is raised, initial opening movement causes the inclined portions of the slots **48** of the bearing plates **42** at the left side of the cover to move along the co-operating pins **40**. As this action occurs, the edges of the slots act against the pins **40** to shift the cover **38** transversely to the left of the table top. As the cover **38** shifts in the manner described, the pins **40** of the right-hand pivot mountings move outwardly in their slots **48** and by the time the left-hand pins **48** disengage their respective slot **48**, the right-hand pins **40** are positioned at or substantially at the outer ends of their slots **48**. It will be observed in this connection that the cover **38** projects slightly beyond the longitudinal framepieces **30** and the transverse shifting movement of the cover also brings the right-hand end of the cover (as viewed in Fig. 3) into register with the inturned flange **58** of the adjacent supporting plates **44**. Continued upward pivotal movement of the cover causes the edges **52** of the left-hand bearing plates **42** to ride along the pins **40**. As this action occurs, the right-hand end of the cover **38** moves onto the co-operating flanges **58**. Thus, by the time the edges **52** disengage the pins **40**, the right-hand end of the cover is supported by the flanges **58**. Thereafter, continued opening movement of the cover **38** causes the latter to swing or pivot about the right-hand pins **40** as the right-hand end thereof is supported by the co-operating flanges **58**. If desirable, the ends of the cover can be provided with wear plates **62** to withstand the rubbing action which occurs between the cover and the supporting plates **44**. Suitable stops in the form of pins **64** are provided at the inner ends of the supporting plates **44** to limit upward swinging movement of the cover **38**. The stops **64** preferably are positioned sufficiently inwardly with respect to the pivot pins **40** so that the cover may assume an upwardly and outwardly inclined position when fully opened, as shown in Fig. 1.

The converse action occurs when the cover **38** is opened from the opposite side of the table. As the right-hand end of the cover **38** (as viewed in Fig. 3) is raised, the left-hand pivot pins **40** move outwardly in their slots **48** and the right-hand pivot pins **40** ride along the guiding edges **52** to cause the cover **38** to shift laterally so as to bring the left-hand end thereof into alignment with the supporting flanges **58** of the co-operating plates **44**. Thereafter, continuing opening movement of the cover **38** causes the right-hand bearing plates **42** to disengage the right-hand bearing plates **42** altogether, and thereafter

the cover 38 swings about the left-hand pivots 40 and is supported by the left-hand supporting plates 44. The mirror 39 is positioned for use when the cover 38 is raised or opened regardless of whether it is opened from the right or left side of the top 10.

Mechanism is provided for holding the cover 38 in different adjusted, partially open positions and this mechanism comprises separate devices located at diagonally opposite corners of the cover. These devices are identical, and a detailed description of one therefore is sufficient. As perhaps best shown in Figs. 5, 6, and 7, each of the cover-holding devices comprises an elongated arm 66 having a longitudinal slot 68 which receives pins 70 and 72 secured to the adjacent frame members 32. The pins 70 and 72 are here shown in the form of ordinary wood screws, and suitable spacers 74 are interposed between the arm 66 and the supporting framepiece 32 to hold the arm away from the framepiece a distance sufficient to clear the adjacent supporting plate 44 and stop 64. Washers 74 and 76 under the heads of the screws 70 and 72 hold the arm 66 properly for sliding movement on the screws. In this connection it will be observed that the washer 76 is spaced outwardly from the arm 66 and a spring 76 interposed therebetween is normally tensioned to press against the arm and thus yieldably resist sliding movement thereof. If necessary or desirable a second washer 80 can be interposed between the arm 60 and the inner end of the spring 78 to serve as a friction member against the arm. Thus, it will be seen that the arm 66 is free to slide back and forth on the pins or screws 70 and 72 within limits defined by the slot 68 and that movement of the arm is yieldably resisted by the spring 78.

When the arm 66 is in the outermost position, as shown in Figs. 2 and 3, the outer end thereof is disposed in proximity to the adjacent side frame member 30, and a notch 82 in the upper edges thereof is disposed to receive a pin 84 extending laterally from a depending supporting bracket 86 fastened to the underside of the cover 38 by screws 88. The arrangement is such that the pin 84 enters the notch 82 after the cover 38 has been partially raised. After the pin 84 enters the notch 82, continued opening movement of the cover 38 causes the pin to move the arm inwardly or away from the adjacent side frame member 30. When the cover 38 is fully opened, the arm 66 occupies substantially the position shown in Fig. 5. By properly tensioning the spring 78, the cover 38 can be held in substantially a desired, partially open position after the pin 84 enters the notch 82. The resilient action of the spring 78 of course holds the cover 38 yieldably in the fully open position and tends to prevent inadvertent closure of the cover. In the particular form of the invention shown, the arm 66 is formed with two angularly related portions 90 and 92 in order to accommodate the arcuate swinging movement of the cover 38.

Boxlike guards 94 are mounted over the arms 66 at opposite sides and at substantially the middle of the opening 36. These guards are fastened in any suitable and convenient way to the top and in the form of the invention shown are fastened to the adjacent frame members 32 by screws 96 and 98. Holes 100 are provided in the guards in register with the screws 70 in order to permit the spring 78 to be selectively tensioned without removal of the guards.

As perhaps best shown in Fig. 6 the guards 94 are spaced downwardly from the cover 38 so as to accommodate the extending flanges 102 of a tray 104. As shown in Fig. 1 the tray 104 is placed in the opening 36 with the supporting flanges 102 resting on and supported by the guards 94 at opposite sides of the opening. The tray 104 is narrower than the opening so as to accommodate the lower portions of the cover 38 when the latter is raised, as shown in Fig. 2. It is, of course, necessary that ample space be provided at both sides of the tray to accommodate the cover 38 when the latter is opened from either side of the table. Inturned flanges 106 on opposite ends of the guards 94 embrace the tray and hold the same properly centered in the opening 36. Manifestly, the tray 104 is covered, concealed, and protected when the cover 38 is closed, and it is exposed for use in front of the cover when the latter is opened from either side of the table (Fig. 2).

Having thus described the invention, I claim:

1. A table including a top having an opening therein; a movable cover in the opening; means supporting said cover for upward pivotal opening movement from either side of said top comprising pairs of pivot mountings at opposite ends of the cover, each pair of mountings comprising a pair of aligned pivots projecting from the top into said opening at opposite sides thereof, bearing plates on said cover having downwardly opening slots receiving said pivots, and supporting plates on the table at opposite sides of said opening having inturned arcuate flanges disposed concentrically with respect to said pivots for supporting said cover during pivotal movement thereof.

2. The combination as set forth in claim 1 wherein said bearing plates mutually coact with said pivots to hold the closed cover against lateral sliding movement.

3. The combination as set forth in claim 1 wherein the ends of the cover extend beyond said supporting plates, and including cam means operable by initial opening movement of the cover to move the pivoted end thereof laterally inwardly into register with the flanges of said supporting plates.

4. The combination as set forth in claim 1 wherein the slots in said bearing plates have angularly upwardly inclined portions terminating in outward extensions forming guides for directing the pivoted end of the cover into register with the flanges of said supporting plates.

5. The combination as set forth in claim 1 wherein said bearing plates have downward extensions engageable with said pivots to prevent movement of the pivoted end of the cover laterally outwardly away from the supporting plates during initial opening movement of said cover.

6. A table including a top having an opening therein; a movable cover in the opening; means supporting said cover for upward pivotal opening movement from either side of said top comprising pairs of pivot mountings at opposite ends of the cover, each pair of mountings comprising a pair of aligned pivots projecting from the top into said opening at opposite sides thereof, bearing plates on said cover having downwardly opening slots receiving said pivots, supporting plates on the table at opposite sides of said opening having inturned arcuate flanges disposed concentrically with respect to said pivots for supporting said cover during pivotal movement thereof, and means for holding said cover in different adjusted partially open positions.

7. A table including a top having an opening therein; a movable cover in the opening; means supporting said cover for upward pivotal opening movement from either side of said top comprising pairs of pivot mountings at opposite ends of the cover, each pair of mountings comprising a pair of aligned pivots projecting from the top into said opening at opposite sides thereof, bearing plates on said cover having downwardly opening slots receiving said pivots, and supporting plates on the table at opposite sides of said opening having inturned arcuate flanges disposed concentrically with respect to said pivots for supporting said cover during pivotal movement thereof; and means for holding said cover in different adjusted partially open positions comprising a slidable arm carried by said table at each side of said opening and below said cover, yieldable means frictionally engaging said arms to resist sliding movement thereof, and elements on said cover at opposite ends thereof selectively movable individually into engagement with and detachably connectible to said arms by pivotal actuation of said cover.

8. The combination as set forth in claim 7 wherein said

arms have notches, and said selectively movable elements are in the form of pins movable into and interlockingly engageable with said notches.

9. The combination as set forth in claim 7 including a removable tray in the opening, and covers for said arm supporting said tray.

10. The combination as set forth in claim 7 wherein said yieldable means includes spring members and adjusting screws for selectively tensioning said spring members, and including a removable tray in the opening of said table, and covers for said arms fastened to the top supporting said tray, said covers having openings in register with and providing access to said adjusting screws.

11. A table including a top having an opening therein; a movable cover in the opening having projecting end portions; means supporting said cover for upward pivotal opening movement from either side of said top comprising pairs of pivot mountings at opposite ends of the cover, each pair of mountings comprising a pair of aligned pivots projecting from the top into said opening at opposite

sides thereof, bearing plates on said cover having downwardly opening slots receiving said pivots, and supporting plates on the table at opposite sides of the opening having inturned arcuate flanges disposed concentrically with respect to said pivots for supporting said cover during pivotal movement thereof, said slots having angularly upwardly and outwardly inclined portions terminating in outward extensions forming guides coactive with said pivots during initial opening movement of the cover to move the adjacent end portion of the cover into register with said supporting plates.

References Cited in the file of this patent

UNITED STATES PATENTS

2,346,919	Hillenbrand	Apr. 18, 1944
2,628,147	Berner	Feb. 10, 1953
2,685,486	Woller	Aug. 3, 1954

FOREIGN PATENTS

89,686	Austria	Mar. 15, 1922