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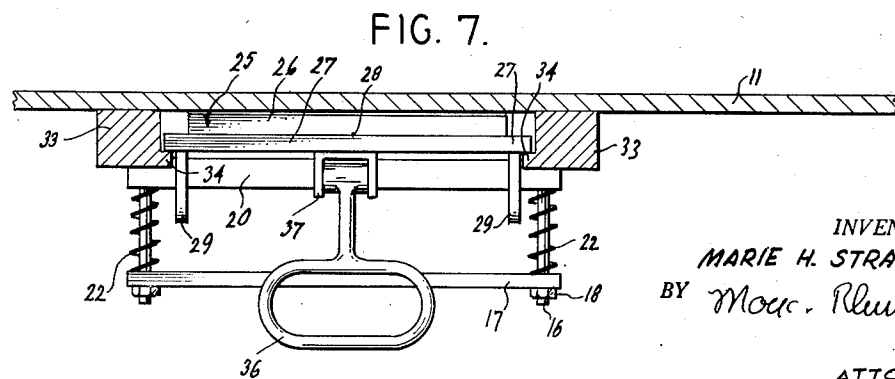
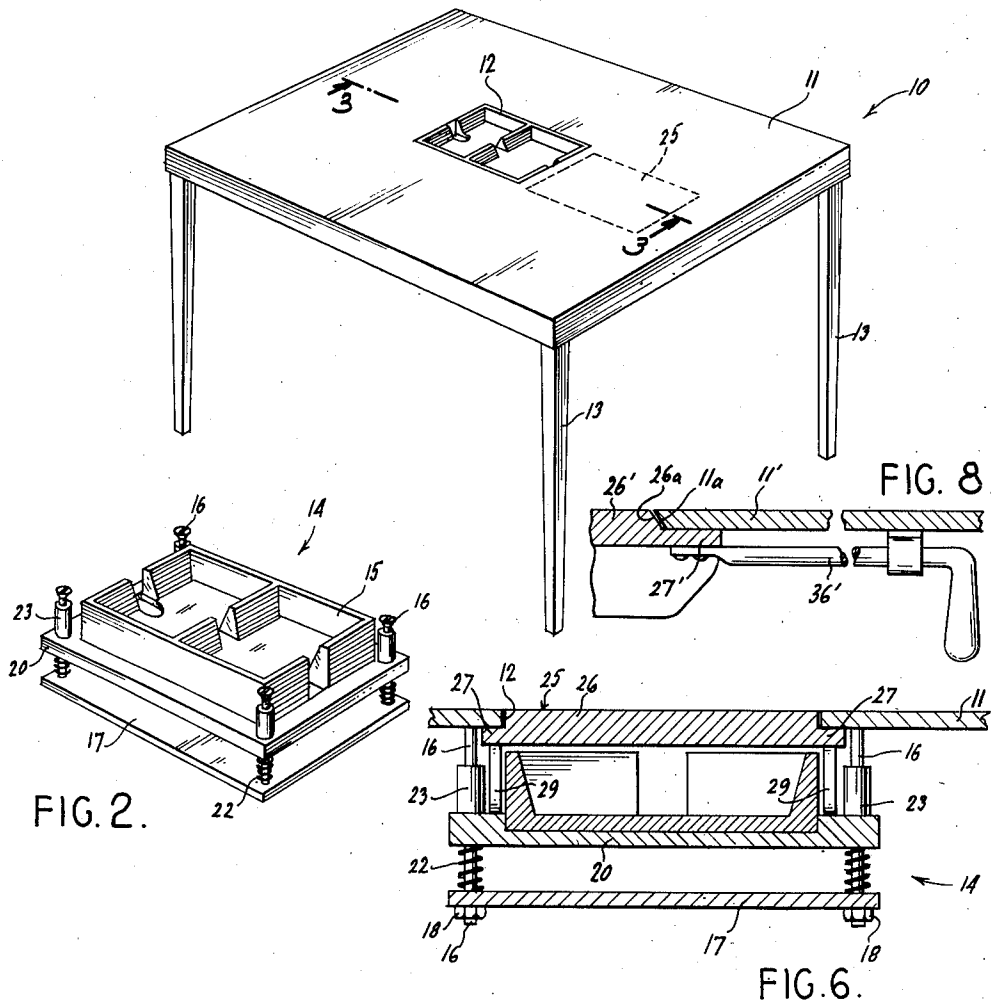
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TABLE TOP CONSTRUCTION

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2 Sheets-Sheet 1

FIG. 1.



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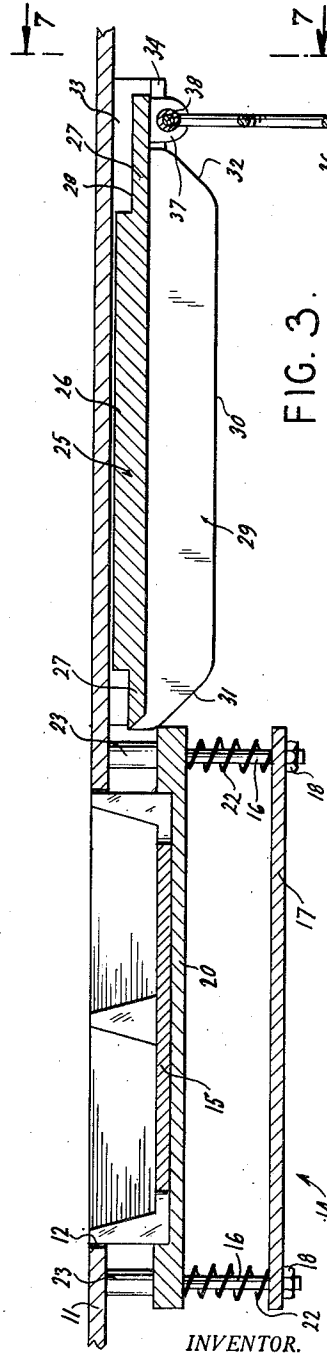
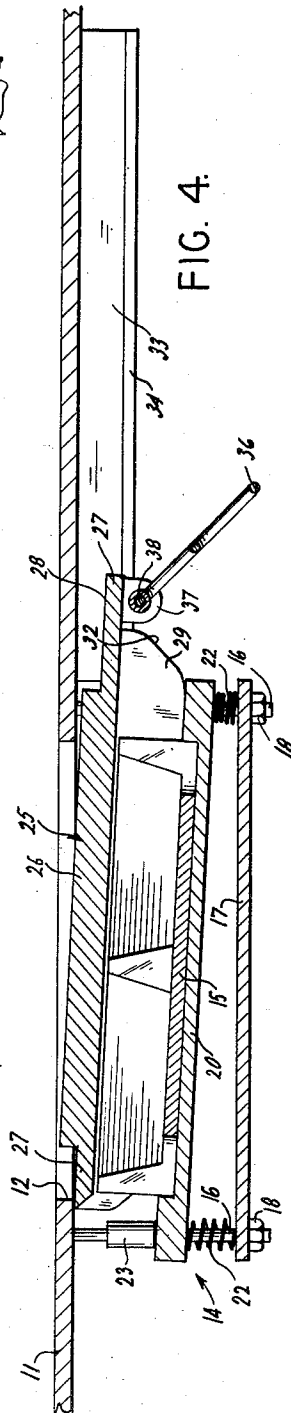
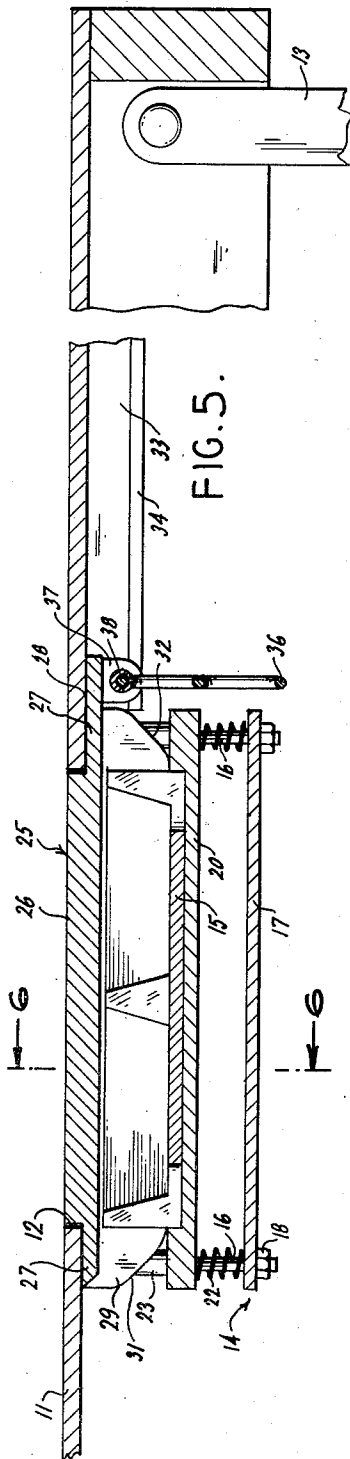
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TABLE TOP CONSTRUCTION

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2 Sheets-Sheet 2



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TABLE TOP CONSTRUCTION

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12 Claims. (Cl. 312—242)

This invention relates generally to articles of furniture and the like; and, is particularly directed to novel construction permitting the selective exposure for use, and the concealed retraction for storage of a device adapted to be employed in conjunction with the article of furniture.

The particular embodiment of the present invention, which is illustrated in the drawings and which will be described hereinafter in greater detail, comprises generally a top member or wall having a removable panel, and means for mounting a desired article under the panel so that the article will automatically move into and out of operative position with respect to the top member upon removal and replacement of the panel.

As is well known to those versed in the art, the employment of conventional storage devices, such as drawers, cabinets and the like, in articles of furniture, requires considerable space and material, so as to be impractical or undesirable in many instances. For example, in table construction the provision of conventional storage means under the table top involves substantial supporting structure and serves to reduce the undertable space and seating capacity.

Accordingly, it is one object of the present invention to provide a storage device adapted to be incorporated with an article of furniture, which device overcomes the above mentioned difficulties by requiring a minimum of supporting structure and occupying little or no otherwise usable space.

It is another object of the present invention to provide an improved storage means having the advantages mentioned in the foregoing paragraph, wherein an object to be stored may be concealed within an article of furniture when not in use, and may be readily presented for use by a single manual operation. Further, the device may be quickly and easily retracted into and concealed within the article of furniture by mere reversal of said manual operation.

It is still another object of the present invention to provide a novel table top construction wherein a device adapted for use in conjunction with the table top is carried immediately below the latter and automatically shiftable between a concealed position below the table top and an operative or in use position. More particularly, the table top includes a removable panel having novel features of construction which serve effect exposure for use and retraction for storage, respectively, of a game or other device upon removal and replacement of the panel.

It is a further object of the present invention to provide a device of the type described which is simple in construction and durable in use, requiring a minimum number of parts, and which can be manufactured and incorporated in an article of furniture at a reasonable cost.

Still other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of

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construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

5 In the drawings:

Figure 1 is a top perspective view showing a table embodying the construction of the present invention;

10 Fig. 2 is a top perspective view showing a part of the novel construction of the present invention removed from the table;

Fig. 3 is a vertical, sectional view taken substantially along the line 3—3 of Fig. 1; and showing the device of the present invention in its operative position;

15 Fig. 4 is a view similar to Fig. 3 showing the device in an intermediate position of movement;

Fig. 5 is a view similar to Figs. 3 and 4, showing the device in its inoperative or concealed position;

20 Fig. 6 is a sectional view taken substantially along the line 6—6 of Fig. 5;

Fig. 7 is a sectional view taken substantially along the line 7—7 of Fig. 3; and

Fig. 8 is a fragmentary, detail view, similar to Fig. 5, showing a slightly modified form of construction of the present invention.

25 Referring now more particularly to the drawings, the embodiment of the invention illustrated therein comprises a table, generally designated 10, having a plate-like top member or wall 11 formed with a centrally disposed through opening or hole 12. Legs 13 may depend from the table top corners or other desired regions, a conventional bridge table leg construction being shown in Fig. 5. For purposes of illustration, the hole 12 is shown as being generally rectangular in configuration.

30 Disposed below the table top 11, under the opening 12, is a supporting structure, generally designated 14, upon which is carried a tray 15 or other article adapted to be employed in conjunction with the table top. The supporting structure 14 includes a plurality of guide members or pins 16 spaced about the opening 12 and depending from the table top 11.

35 For purposes of rigidity, a connecting member or plate 17 may be secured to the lower ends of the pins 16, as by nuts 18.

40 A plate-like supporting body or member 20 is slidably mounted on the guide pins 16 for vertical movement in the space between the connecting plate 17 and table top opening 12. In the illustrated form of the invention the supporting member 20 is provided in its upper face with a recessed portion for seating the tray 15. Resilient means embodied by helical coil springs 22 are circumposed about the guide pins 16 between the connecting plate 17 and supporting member 20 to resiliently urge the latter upwards toward the opening 12. In order to limit upward movement of the supporting member 20, a spacer sleeve 45 or tube 23 is slidably circumposed about each of the pins 16 intermediate the table top and support member. Thus, upward movement of the support member is limited to the position shown in Fig. 3, wherein the sleeves 23 each have their opposite ends in abutting engagement with the table top 11 and support member. For reasons which will become apparent hereinafter, the sleeves 23 are preferably loosely circumposed about the pins 16, and the pins extend spacedly through the support member 20.

50 In the illustrated embodiment, the article or device 15 is shown in the form of a tray conventionally employed in the play of various card games. However, it is appreciated that any article or device may be substituted for the tray 15 without departing from the scope of the present invention. In using the tray 15, it is desirable that the tray and supporting structure 14 be proportioned so that the upper tray edge will be substantially flush with the upper

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surface of the table top 11 when the support member is in its extreme upward position of movement, as shown in Fig. 3.

Disposed conformably within and in closing relation with respect to the table top opening 12 is a removable cover or closure panel, generally designated 25, which serves to maintain the supporting body 20 and tray 15 in their position of movement away from the opening, see Figs. 5 and 6, and which is removable to permit upward movement of the supporting body and tray into their operative position of Fig. 3. The cover member 25 includes a cover plate 26 having a peripheral extension or flange 27 adapted to engage with the underside of the table top 11 when the cover plate is received within the opening 12. Stated otherwise, the flange or extension 27 defines an upwardly facing peripheral shoulder 28 which is spaced below the upper cover plate surface a distance equal to the thickness of the table top wall or plate member 11, so that the shoulder 28 engages with the under surface of the table top 11 when the cover is disposed within the opening 12 and serves to maintain the upper cover plate surface substantially flush with the upper table top surface. The cover 25 further includes a pair of parallel spaced, depending abutment members 29, 29 in the form of runner-like ribs or blades. As best seen in Fig. 3, the abutments 29 are each formed with a substantially flat lower edge 30 and have their end edges extending upwards and outwards, as at 31 and 32. The bottom abutment edge 30 serves to engage with the upper surface of the supporting body 20 when the cover is in its closed position of Fig. 5, thereby maintaining the supporting body in its position of movement away from the opening 12 against the force of the resilient spring members 22.

Extending away from the table top opening 12, along the undersurface of the table top 11, are a pair of parallel spaced, facing guide members 33, 33, which combine to define a slideway for receiving the cover 25. That is, the guide members 33 are each fixed to the under surface of the table top 11 and include a longitudinally extending ledge 34 spaced from the table top. Upon substantially horizontal sliding movement of the cover 25 along the underside of the table top 11, opposite portions of the cover plate extension 27 will be slidably supported on the ledges 34, 34. A hand loop or other gripping means 36 is pivoted to one portion of the cover plate extension 27 by the ears 37 and pin 38.

In operation, a downward force on the hand loop 36, with the cover 25 in the closed position of Fig. 5, will permit sliding movement of the cover toward the right along the underside of the table top 11, as shown in Fig. 4. The cover plate extension 27 will then be received within the slideway 33, 33 and permit continued sliding movement of the cover to its fully open position of Fig. 3.

During opening movement of the cover 25, the lower edge 30 of the abutments 29, 29 slide over the upper surface of the supporting body 20 until the latter is released for upward movement under the force of the springs 22.

An important feature of the present invention resides in the upwardly and outwardly extending end edge 31 of each abutment member 29. Such edge defines a cam surface engageable with the adjacent edge of the supporting body 20 to depress the latter against the action of the springs 22 upon closing movement of the cover 25. Stated otherwise, the cam surfaces 31, 31 of the abutment members 29, 29 serve to slidably engage the adjacent edge 35 of the supporting body 20 to depress the latter toward its retracted position of movement away from the opening 12 upon closing movement of the cover from right to left as seen in Figs. 3-5. Thus, it will now be understood that opening movement of the cover serves to effect automatic exposure and elevation of the tray 15 into the opening 12, while closure of the cover automatically effects retraction and concealment of the tray.

In Fig. 8 is shown a slightly modified form of the present invention, wherein the table top 11' and cover plate

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26' have one side of adjacent edges 11a and 26a, respectively, cammed or otherwise shaped to automatically deflect the cover plate downwardly into underlying relation with respect to the top wall upon opening movement of the cover plate from left to right. In the illustrated embodiment the adjacent pair of edges 11a and 26a are inclined downwardly and outwardly to permit sliding movement of the cover plate under the table top upon the exertion of a force directed horizontally toward the right.

This form of the invention permits the use of a hand actuable pull member or rod 36' secured fast to the extension 27' of the cover plate 26'. Thus, this construction permits actuation at a more convenient point adjacent to the table edge, and also permits operation by pure push and pull motion.

From the foregoing, it is seen that the present invention provides a storage device construction for use in conjunction with articles of furniture and the like, which construction fully accomplishes its intended objects and is well adapted to meet practical conditions of manufacture and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.

What is claimed is:

1. In an article of the class described, a plate-like member having a through hole formed therein, a body disposed on one side of said plate-like member adjacent to and facing toward said hole, means mounting said body for reciprocating movement toward and away from said hole, resilient means urging said body toward said hole, a cover disposed in closing relation with respect to said hole and engageable with said plate-like member and said body to retain the latter in its position of movement away from said hole, means mounting said cover for reciprocating movement along said one side of said plate-like member between said hole closing position and a hole opening position spaced laterally from said hole and body, said body being released for movement toward said hole upon movement of said cover to its hole opening position, stop means limiting the movement of said body toward said hole, and cam means on said cover and engageable with said body upon movement of said cover to its hole closing position to effect movement of said body away from said hole.

2. A device according to claim 1, said cover being flush with the other side of said plate-like member when in said closing relation, and cooperating surfaces on said cover and plate-like member engageable upon opening movement of said cover to shift the latter to said one side of said plate-like member.

3. In a table having a top formed with an opening therethrough, a body mounted under said opening for vertical movement toward and away from the latter, resilient means urging said body toward said opening, a cover plate disposed within said opening and reciprocable substantially horizontally between its position within said opening and a position underlying said table top spaced from said opening, an abutment on the underside of said cover plate and engageable with said body to hold the latter in its position of movement away from said opening when said cover plate is disposed within said opening, stop means limiting the movement of said body toward said opening when said cover plate is in said underlying relation, and cam means on said cover plate and movable therewith for effecting movement of said body away from said opening when said cover plate is moved toward its position within said opening.

4. A device according to claim 3, said cover plate being flush with the upper side of said table top when disposed within said opening, and cooperating surfaces on said cover plate and table top engageable upon move-

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ment of said cover plate out of said opening to shift said cover plate to the under side of said table top.

5. A device according to claim 3, in combination with an upwardly facing tray on said body and having its upper edge flush with the upper side of said table top when said body is in its extreme position of movement toward said opening.

6. The combination with a table having a top formed with an opening therein of a supporting member below said table top under said opening and vertically reciprocable toward and away from the latter, resilient means urging said member toward said opening, a cover disposed within said opening in closing relation with respect thereto and adapted to hold said member in its position of movement away from said opening, means mounting said cover for sliding movement along the underside of the table top between said closing relation and an open position spaced horizontally from said opening and body, stop means limiting the movement of said member toward said opening when said cover is moved to its open position, and cam means on said cover and movable therewith for effecting movement of said member away from said opening when said cover is moved toward its closed position.

7. A device according to claim 6, said cover comprising a plate-like member shaped for conforming engagement within said opening to conceal the latter when in its closed position, and at least one abutment depending from said plate-like member and slidably engageable with said supporting member upon movement of said cover.

8. A device according to claim 7, said cam means comprising an extension on said abutment and engageable with said member to move the latter away from said opening upon closing movement of said cover.

9. A device according to claim 8, wherein adjacent edge portions of said opening and plate-like members are shaped to deflect the latter downwards under said plate-like member upon horizontal sliding movement of said cover toward its open position.

10. In a game table, a top having a hole formed therein, guide means depending from said table top adjacent to said hole, a support member mounted on said guide means for vertical reciprocating movement toward and away from said hole and adapted to carry a game device into and out of said hole, resilient means on said guide means urging said support toward said hole, stop means on said guide means limiting the movement of said support member toward said hole, a cover plate disposed

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conformably within and in closing relation with respect to said hole, an upwardly facing shoulder on said cover plate and engageable with the underside of said table top when said cover plate is disposed within said hole, a depending abutment member on said cover plate and engageable with said support member to maintain the latter in its position of movement away from said hole when said cover plate is in said closing relation, a slide-way along the underside of said table top and receiving said cover plate upon sliding movement of the latter under said table top out of said hole, said support member being released for movement toward said hole upon movement of said cover plate out of said hole, and cam means on said cover plate and engageable with said support member upon movement of said cover plate toward said hole to effect movement of said support member away from said hole.

11. A device according to claim 10, said cover plate being flush with the upper side of said table top when in said closing relation, and cooperating surfaces on said cover plate and table top engageable upon opening movement of said cover plate to shift the latter to the underside of said table top.

12. The combination with a table having a top formed with an opening therein of a tray disposed below said table top under said opening and movable upwards into said opening and downwards out of the latter, resilient means urging said tray into said opening, a cover disposed within said opening in closing relation with respect thereto and adapted to hold said tray in its downward position of movement out of said opening, a slide-way under said table top mounting said cover for sliding movement along the underside of said table top between its closed position within said opening and an open position spaced horizontally from said opening and tray, and a cam element on the under side of said cover and movable therewith for effecting downward movement of said tray out of said opening when said cover is slid toward its closed position.

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