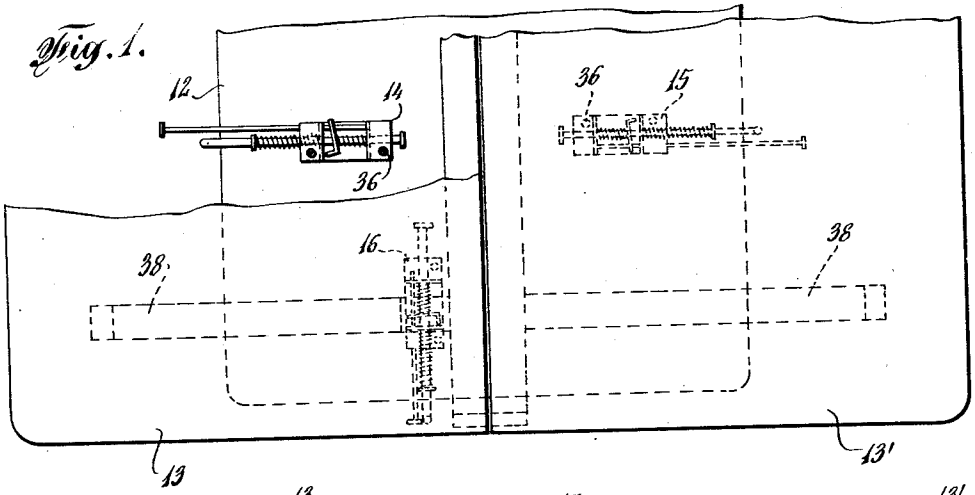
Oct. 10, 1939. A. RUHL 2,175,572

SUPPLEMENTAL TABLE TOP

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Fig. 1.



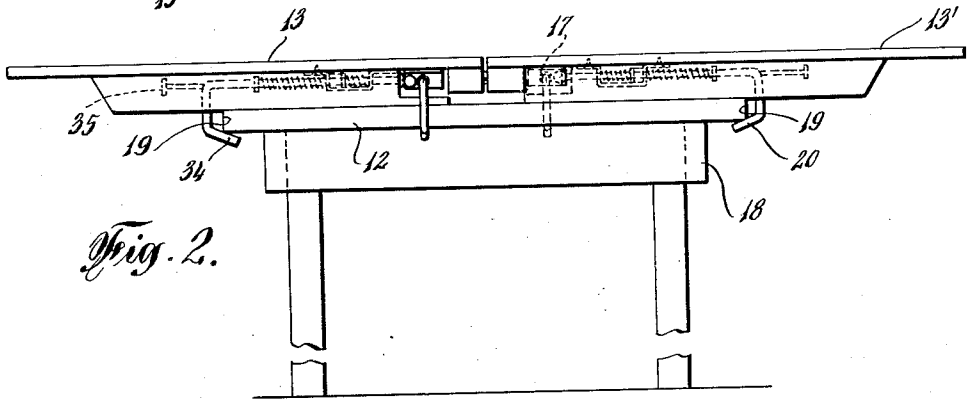


Fig. 2.

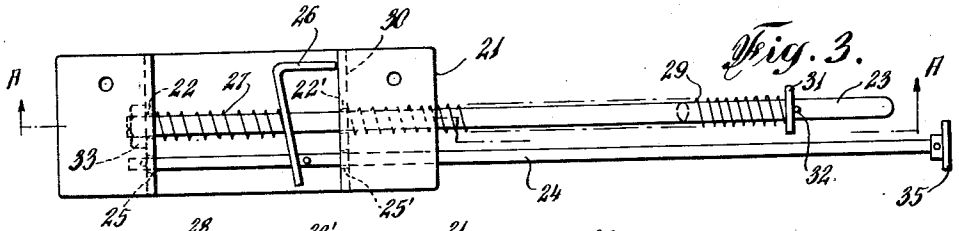


Fig. 3.

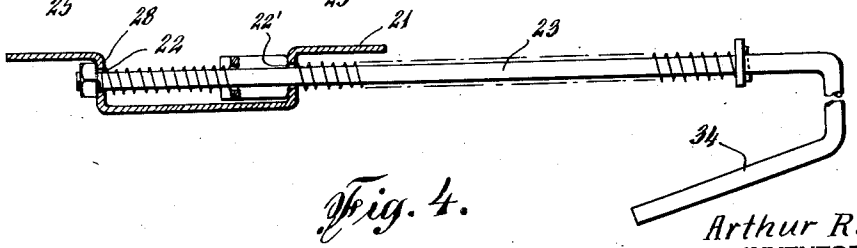


Fig. 4.

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Fig. 5.

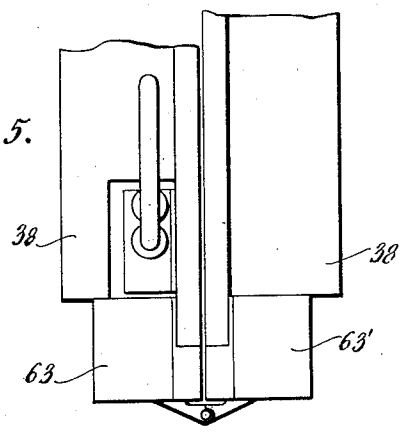


Fig. 6.

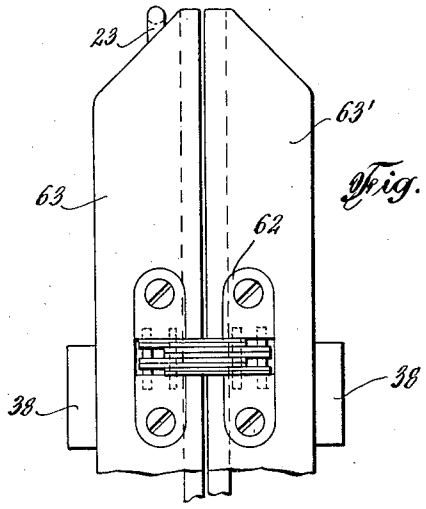


Fig. 7.

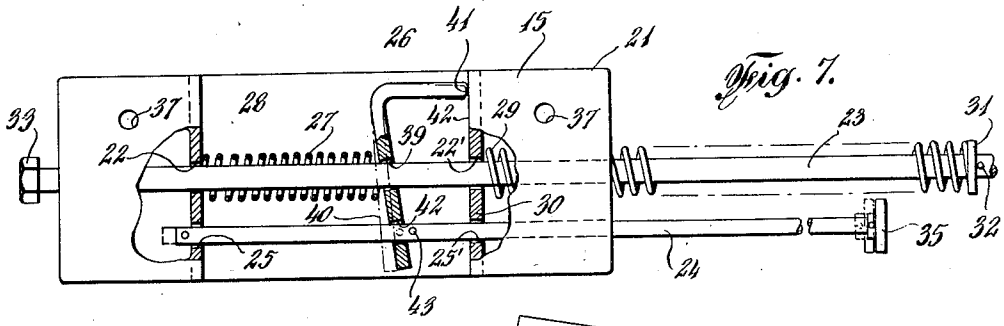


Fig. 8.

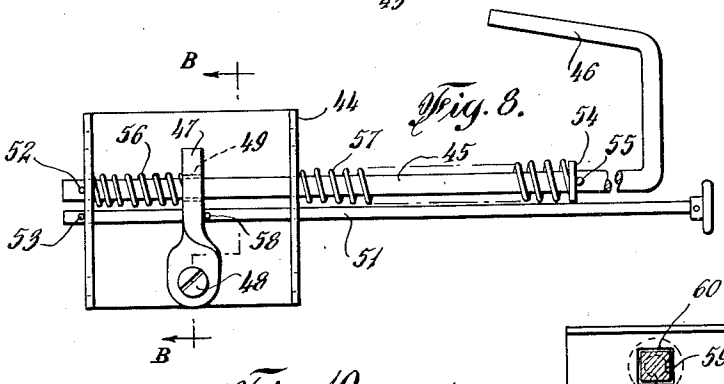


Fig. 9.

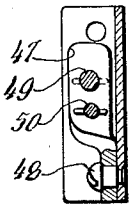
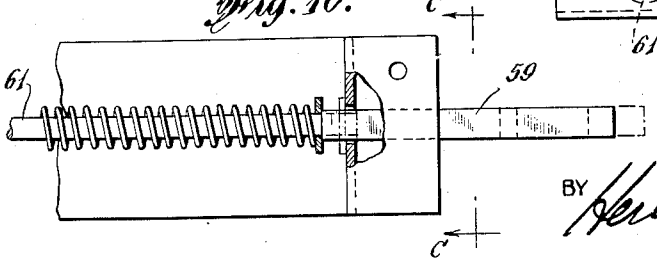


Fig. 11.

Fig. 10.



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SUPPLEMENTAL TABLE TOP

Arthur Ruhl, New York, N. Y.

Application July 23, 1938, Serial No. 220,879

5 Claims. (Cl. 311—106)

This invention pertains to enlargeable tops for tables and more particularly to a gripping means for readily adjusting and securing an enlargeable table top to a conventional table, which may be a card table.

More particularly, the invention pertains to a spring actuable means for rigidly securing an enlargeable table top to a conventional table, and spring means for releasing said spring actuable gripping means.

It is, therefore, an object of this invention to provide a table top for use in conjunction with other tables, which table top will have resilient locking means to secure said table top on a conventional table. A further object of the invention is to provide an enlargeable table top with resilient means for securing said enlargeable table top onto a conventional table by a simple operation, and resilient means for manually releasing said locking means.

A further object is to provide a locking means for said table top so constructed as to permit the use of said table top on card tables of various sizes.

A still further object is to provide a foldable table top so constructed that when the table is folded its opposing surfaces are substantially parallel and its locking means are within the confines of the table top per se and its supports therefor.

Other and further objects of the invention may be and may become apparent to those skilled in the art from a perusal of this invention without departing from the spirit thereof.

For a better understanding of the invention reference may be had to the accompanying drawings in which:

Fig. 1 shows a partial view of the enlargeable table top placed on the surface of a conventional table, and the gripping means therefor.

Fig. 2 is a side view of Fig. 1.

Fig. 3 is a top view of one of the gripping means in its inoperative position.

Fig. 4 is a side view, partially shown in section, taken on lines A—A of Fig. 3.

Fig. 5 is a partial view of the folded table top showing the table gripping means in its fully inoperative position.

Fig. 6 is an end view of the folded table top showing its substantially parallel surfaces.

Fig. 7 is an enlarged view, somewhat similar to Fig. 3, partly broken away to more clearly indicate the construction of the locking and releasing means.

Fig. 8 is a modification of the locking and releasing means.

Fig. 9 is a side view taken on lines B—B of Fig. 8 to show the pivotal lever which cooperates with the slidable gripping means and the releasing member.

Fig. 10 is part of a modification partly broken away to show construction of the slidable gripping means.

Fig. 11 is an end view taken on lines C—C of Fig. 10.

Referring to Fig. 1, the table top **12** may represent the top of a conventional table such as a table which is conventionally referred to as a card table. Parts **13** and **13'** are the opposing sides of an enlargeable table top which is secured to the card table **12** for the purpose of creating a greater table area to permit a larger number of players to sit around an individual table. This feature is particularly desirable for residents residing in restricted quarters such as a small apartment. The present invention in practical use has been demonstrated to permit ten people to comfortably use the enlarged table top in lieu of the conventional limitation of four people about a card table of the usual proportions.

The gripping means **14**, **15**, and **16** are similar in construction, and, while there are only three of the gripping means shown, it is pointed out that in actual construction four are usually utilized, the fourth one **17** being added on the **13'** side of the table in a diametrically opposite position to the gripping means **16**. This fourth gripping means is shown dotted in Fig. 2 and indicates generally the position assumed by this fourth gripping means not disclosed in Fig. 1.

The showing in Fig. 2 is of a conventional table. The skirt **18** is usually found on a conventional wooden table other than a card table and is shown here to indicate that the gripping means has a working latitude such that it can be used in conjunction with tables other than those conventionally referred to as card tables. The thickness of the beading **19** on the card table in Fig. 2, it has been indicated, will vary on tables of various manufacture. To take care of this condition the inclined edge **20** of each of the gripping means is such that a reasonably variable thickness in the table bead **19** may be accepted for use in conjunction with the present invention.

Referring to Fig. 3, the entire showing has generally been referred to as a gripping means, and it is understood that the term gripping means also embraces the releasing means used in conjunction with the gripping means.

For the purpose of clarity, the gripping and locking means in conjunction with its housing will hereinafter be referred to as a lock. It will, therefore, be understood that the parts 14, 15, 16, and 17 are the four locks which hold the enlargeable table top in fixed relation to the table 12.

In all of the views of the gripping means it will be noted that a releasing means is associated therewith so that by simply pressing a button, a lever arrangement will permit the gripping means per se to be restored to normal.

Fig. 4 is a side view partially shown in section of Fig. 3, for the purpose of showing the positions of various working parts. Part 21 is a housing which has openings 22 and 22' through which slides the gripping lever 23. A releasing lever 24 slides in holes 25 and 25'. An angular or L-shaped member 26 has holes therein to permit the rods 23 and 24 to slide therethrough. A spring 27 impinges the inner wall 28 and one surface of the L-shaped lever 26. A spring 29 impinges one surface of the wall 30 and a washer 31' which washer engages a stop pin 32. A nut 33 or any other suitable means is secured to one end of the shaft 23 to prevent the action of spring 29 from pulling the shaft 23 out of its hole or journal 22.

An inclined edge gripping surface 34 is a continuation of the shaft 23. The inclined edge 34 actually engages the underneath side of the beading 19 of the table and frictionally holds the enlargeable table top in a fixed position in relation to the table proper.

For a more detailed description of the parts, reference may be had to Fig. 7 wherein like parts are numbered similar to those already mentioned in Figs. 3 and 4. The shaft 24, which is referred to as a releasing shaft, has a button 35 which is pressed to release the gripping means. In operation, the lock 15, as shown in Fig. 7, is secured to the underneath side of the foldable table top by using a screw such as 36 which goes through the hole 37 to secure the housing 21.

The foldable table top is placed on top of the table proper 12 and is approximately positioned centrally thereon. The spacers 38 are secured to the underneath side of the foldable table top and hold said foldable table top per se spaced from the table top proper 12. After the enlargeable table top is properly positioned on the conventional table 12, the individual gripping shafts 23 are urged inwardly until the inclined edge 34, engages the beading 19 of the table. In so doing, it will be noticed by reference to Fig. 7 that the shaft 23 compresses its spring 29. As soon as the inward movement of the shaft 23 is stopped, the L-shaped lever 26, which has a hole 39, is urged in a position to grip the shaft 23 as shown in section. The lever 26 shown in dash-dot lines 40 indicates the approximate position of the lever 26 at any instant when it is being moved inwardly and the solid lines of the lever 26 are shown after the inward movement is no longer present and the action of the spring 27 urges the lever 26 so that the edges of the hole 39 impinge and frictionally engage the shaft 23 to securely hold it in substantially the position at which it was left when it engaged the bead 19 of the table 12. One end of the L-shaped lever 41, it will be noted, rides on the surface 42 of the housing 21. The lever 26, therefore, is free to move on the shafts 23 and 24 dependent on the action of the spring 27 and the bearing of the lever edge 41 against the surface 42. It will further be noted that a second hole in the lever 26 is shown as 42. This hole permits the release rod 24 to slide therethrough. When it is desirous to release the shaft 23 so that the inclined edge 34 no longer engages the beading 19 of the table 12, it is merely necessary to press the button 35 which is attached to the shaft 24. The pressure on the button 35 moves the shaft inwardly so that the pin 43 carried on the shaft 24 will engage the lever 26 and move one end of the lever so that the edges of the hole 39 will no longer grip the shaft 23. The movement of shaft 24 inwardly will bring the lever 26 from the position shown solid to the position shown dotted at 40. The inward movement of the shaft 24 naturally compresses the spring 27 so that when the pressure is removed from the button 35 the lever 26 is again moved so that the edges of the hole 39 contact the shaft 23. While there is no definite measurement given as to the size of the hole 39 in relation to the shaft 23, it is to be understood that the hole will be sufficient to permit a proper working of the shaft 23 therethrough and the gripping thereof under the action of the spring 27.

While shaft 24 is shown solid in action with its push button 35 and pin 43, it is pointed out that the dotted lines of the shaft pin and push button correspond with the dash-dot line 40 of the lever 26. The dotted line of the parts 25, 26, 43 and 35 show the position of these respective members when the shaft 24 is actuated to release the shaft 23 and the ultimate gripping of the table 12 by the inclined edge 34.

The operation immediately set forth above is for one lock, and it is to be understood that the remaining locks 14, 16, and 17 would operate in a similar manner to that already expressed immediately above.

A modification of the lock, such as 15, is set forth in Fig. 8. The purpose of this modification is to indicate that the invention is not necessarily limited to the particular arrangement of parts such as the springs and the lever 26. It is to be understood that any equivalent parts which may operate properly and efficiently to produce the desired result, may be utilized in this invention. This is shown in Fig. 8 wherein a housing 44 has a shaft 45 and an inclined edge 46. The inclined edge is shown in this view to be turned into its inoperative position, that is, in a position when it is resting parallel with the underneath side of the table top. A lever 47 is pivotally secured by a screw 48 or other means to the housing 44. Referring to Fig. 9, this lever 47 has holes 49 and 50 which engage the shaft 45 and the releasing shaft 51. Pins 52 and 53 are used as limiting means on shafts 45 and 51, respectively. A washer 54 and pin 55 have similar functions as washer 31 and pin 32 shown in Fig. 7. In this view, when the shaft 45 is moved inwardly, the spring 56 is compressed so that when the shaft 45 is released, the edges of the hole 49 will grip the shaft 45 to prevent it from being moved outwardly under the action of spring 57. Similar to the operation of shaft 24, the shaft 51 in Fig. 8 when urged inwardly will cause the pin 58 to engage the lever 47 which is moved to compress the spring 56 and remove the edges of the hole 47 from frictional engagement with the shaft 45 which permits the shaft 45 to be released and move outwardly under the action of spring 57.

A further modification of the lock is shown in Figs. 10 and 11. The purpose of this modification is to show that the shafts 23 and 45 in Figs. 7 and 8, respectively, need not necessarily be round

in cross-section. In the foregoing description it has been shown that the shaft **23** and the inclined edge **34** are round in cross-section. Fig. 11 shows that the hole **60** through which the shaft **59** moves may be square, while a portion of the shaft may be round such as **61**. The reason for this is that by utilizing a square shaft in a square hole, the inclined edge will remain in substantially a fixed axial position once the square shaft engages the square hole. With this arrangement it will be seen that when the shaft such as that shown in Fig. 10 is used, it will be held in fixed relation with its housing. However, when the shaft **59** is released, the round part of the shaft **61**, will engage the square hole **60**, and permit the inclined edge to be moved at right angles to its operative position so that the inclined edge may rest substantially in parallel position to the underneath side of the foldable table top.

Fig. 6 shows the extension of the shaft **23** which includes the inclined edge, in a folded position. Both Figs. 5 and 6 show parts of the table with its hinge **62**, said table being in a folded position so that the strips **63** and **63'** which receive the hinges are parallel. Further, the parts **38** by use of the hinge **62** are shown to be substantially parallel which permits the table to be slipped into a compartment having substantially parallel inner side walls or into any suitable compartment for the reception of the present invention.

While the present invention shows certain modifications which may be comprehended from a perusal of the present invention it is to be understood that various equivalent parts may be utilized to supplement those indicated herein.

While specific details of the foldable table top and its associate parts have been herein shown and described, the invention is not confined thereto as changes and alterations may be and may become apparent to those skilled in the art without departing from the spirit thereof as defined by the appended claims.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is—

1. An auxiliary table top adapted to engage a conventional table top, a plurality of locks on the auxiliary table top for securely holding said auxiliary table top in substantially fixed position in relation to said conventional table, each of said locks comprising a housing, a shaft slidably mounted in said housing, an inclined gripping member secured to said shaft, locking means for gripping said shaft and automaticaly holding it in an operative position, and automatic means for simultaneously releasing said locking means and restoring said gripping member to an inoperative position.

2. An auxiliary table top adapted to engage a conventional table top, a plurality of locks for holding said auxiliary table top in substantially a fixed position in relation to said conventional table, each of said locks comprising a housing, a shaft slidably mounted in said housing, an inclined gripping member secured to said shaft to grip the underneath edge of the conventional table top, means for automatically gripping said shaft and holding it in an opeartive position, and means for simultaneously releasing said locking means and restoring said shaft to normal by a single actuation of said last named means.

3. A supplemental table top to be placed on the upper surface of a master table, a plurality of means for securing said supplemental table to said master table, each of said means comprising a housing, two movable shafts independently operable in relation one to the other supported by said housing, a locking lever having apertures therein for receiving said shafts, spring means to cause one of said shafts to be gripped by said locking lever after said shaft has been urged in a given direction, means on the second shaft to cause said locking lever to be released, and resilient means on said first shaft to cause same to be automatically restored to a normally inoperative position after the locking lever has been released.

4. A supplemental table top to be used in conjunction with a conventional table, said supplemental top having in combination a plurality of fastening means secured thereto, each of said means comprising a framework adapted to receive an elongated shaft member, an elongated shaft member having one end thereof protruding beyond said framework and shaped to securely engage the conventional table when the shaft member is moved inwardly, a locking lever to hold the shaft member in its operative position, a release shaft, and resilient means to move said elongated shaft into its inoperative position after the release shaft is urged against the locking lever.

5. A supplemental table top to be placed on the upper surface of a conventional table, said supplemental table having means secured to the underneath side thereof in a plurality of places to hold the supplemental table in fixed relation to the conventional table top, each of said means comprising a framework adapted to receive a shaft member, a shaft member having one end thereof extending outside said framework and shaped to securely engage the underneath edge of the conventional table top when the shaft member is moved inwardly, a locking lever adapted to automatically grip and hold the shaft member in operative position after being moved inwardly, and means to automatically move the shaft member from operative to inoperative position after the locking lever has been manually released by a single actuation.

ARTHUR RUHL.