Dec. 6, 1949 P. M. PADON 2,490,318

FOLDING TABLE LEGS WITH ACTUATOR GRAVITY LOCK

Filed April 18, 1947 2 Sheets-Sheet 1

Fig. 1.

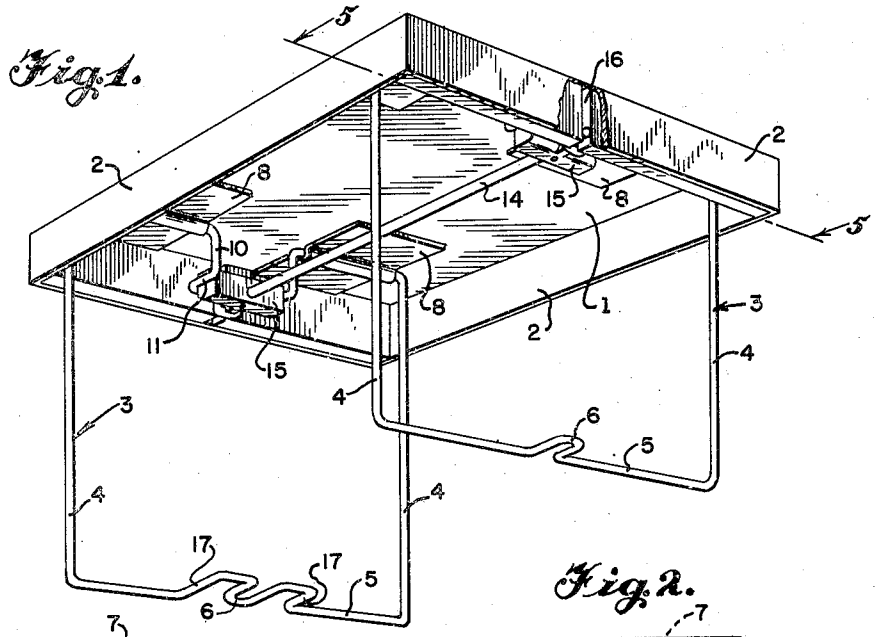
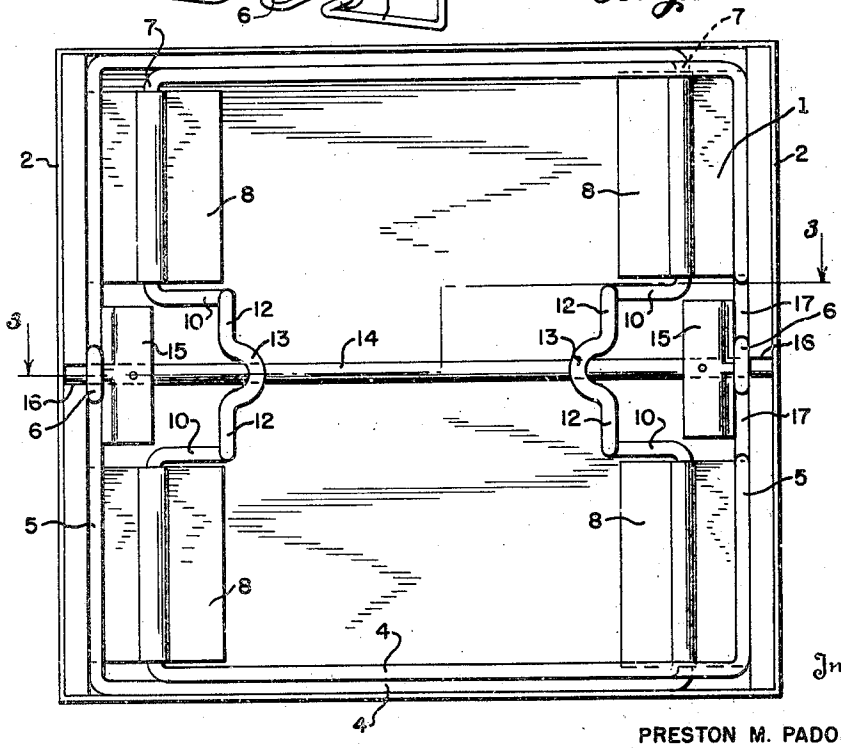


Fig. 2.



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Dec. 6, 1949 P. M. PADON 2,490,318

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Filed April 18, 1947 2 Sheets-Sheet 2

Fig. 3.

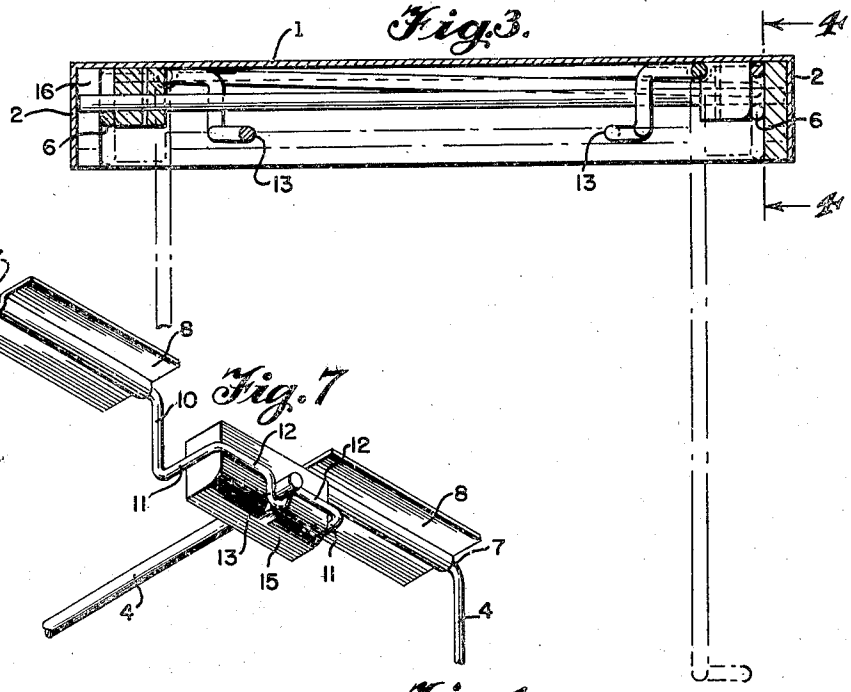


Fig. 7.

Fig. 4.

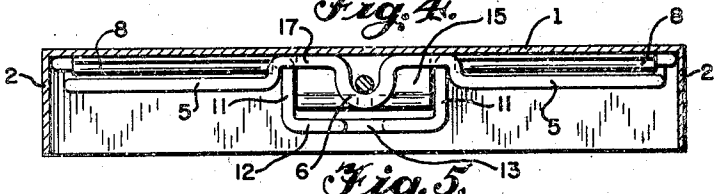
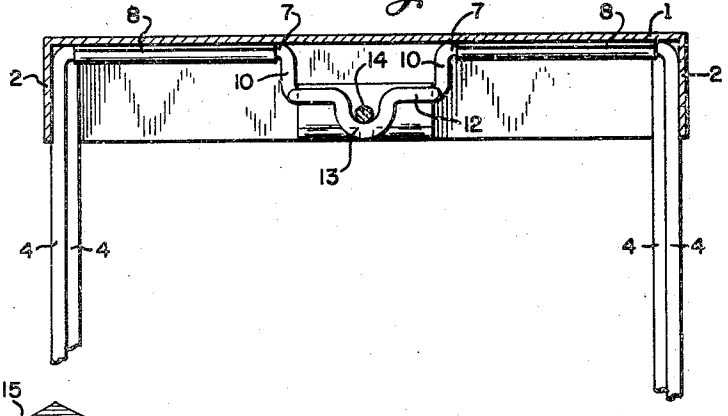


Fig. 5.



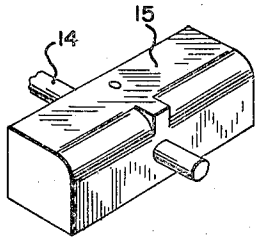


Fig. 6.

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FOLDING TABLE LEGS WITH ACTUATOR GRAVITY LOCK

Preston M. Padon, Phoenix, Ariz.

Application April 18, 1947, Serial No. 742,347

2 Claims. (Cl. 311—86)

1

This invention relates to folding tables, and more particularly to folding tables of the type known as card or bridge tables.

An object of the invention is to provide an improved folding table of the type indicated having hinged leg members with a locking mechanism of an improved and simplified structure adapted to operate by gravitation and without the use of springs.

A further object of the invention is to provide an improved and simplified card table of the type indicated conforming in design with the modern metal type of furniture and embodying an improved locking mechanism operable either by gravity or manually as desired, without the use of springs or spring-controlled catches.

Further objects will more particularly appear in the course of the following description.

The invention consists in the novel construction, arrangement and combinations of parts hereinafter more particularly described and claimed.

Two sheets of drawings accompanying this specification as part thereof in which like reference characters indicate like parts throughout.

In the drawings:

Figure 1 is a perspective view of a table embodying the present invention looking up from underside;

Figure 2 is a bottom plan view showing legs nested on top;

Figure 3 is a section taken on line 3—3 of Figure 2 with legs dotted in open position;

Figure 4 is a transverse cross section taken on line 4—4 of Figure 3;

Figure 5 is a cross section taken on line 5—5 of Figure 1 under edge of the table where the end of the locking rod is guided;

Figure 6 is a perspective view of the locking member and rod, and

Figure 7 is a fragmentary perspective illustrating the medial locking loop on the hinged side of the leg frames.

In the embodiment of the invention illustrated in the drawings, the table comprises a rectangular top 1 having a depending peripheral flange 2 within which the leg frames are adapted to nest when the table is not in use.

To the table top are hingedly secured two substantially rectangular leg frames of which the opposed sides 4—4 function as legs; one side 5 connects the bottoms of the legs when the table is opened, and the opposed side 7 is hingedly secured to the under face of the table top as by hinges 8—8. The two leg frames which as entireties are identified as 3, are hinged to the under face of the table top so that these leg frames are substantially parallel when opened and each leg frame is slightly spaced from the adjacent side of the peripheral flange 2 in a manner to cooperate with said flange in a manner hereinafter more particularly explained.

2

The hinged side of each leg frame and the opposite side 5 are provided with medial aligned loops adapted to cooperate with a locking rod 14 of sufficient length to extend across the table on its underside with its ends freely slidable in guideways 16 formed transversely of the peripheral flange 2, as illustrated in Figures 1 and 3. Adjacent each end of the locking rod 14 is fixedly secured a relatively heavy locking bar 15 herein illustrated as of rectangular shape and adapted to cooperate with the loops formed in the leg frames to lock said leg frames in either open or closed position, as will hereinafter appear.

For the purpose of securing the leg frames in the open position the hinged side 7 of each leg frame is provided with a medial loop well illustrated in Figures 1 and 5, which comprises spaced arms 10—10 extending perpendicular to the adjacent aligned portions of the side 7—7, and which legs 10—10 are continued perpendicularly through portions 11—11 which are again extended through portions 12—12, which portions 12—12 are in alignment and substantially parallel with the portions of the sides 7—7 but spaced in two directions therefrom. The portions 12—12 are further extended into a medial loop 13 of a size and shape conforming to the size and shape of the locking rod 14 so as to receive said locking rod and permit said locking rod to gravitate into said loop, as illustrated in Figure 7. From that figure it will also be observed that when the locking rod 14 has gravitated into the position illustrated in that figure, the locking bar 15 fits snugly within the rectangular portion of the loop formed by the opposed arms 11—11 and 12—12, the portions of the loop 12—12 and loop 13 being disposed when this position between the locking bar 15 and the adjacent side of the peripheral flange 2 which is removed from Figure 7. When the leg frame is in folded position, as illustrated in Figure 2, it will be observed that the portions 10—10 of the loop lie against the under face of the table top while portions 11—11 stand perpendicular with respect to the table top and the portions 12—12 and medial loop 13 overlie the locking rod 14.

The side of the leg frame 5 opposed to the hinged side thus described, is formed with a single medial

loop 6 which when the table is in open position extends outwardly with respect to the leg frame, but which when the leg frames are folded into nested position, extends over and frictionally engages the end portions of the locking rod 14 intermediate each of the locking bars 15 and the adjacent side 2 of the peripheral flange of the table, thus frictionally securing the leg frames in their folded position. As one leg will overlie the other when in folded position, the loop 6 is offset on one leg frame as by bends 17 to give added depth to that loop 6.

In operation with the table folded as illustrated in Figure 2, to open, the opposed sides 5 of each leg frame are engaged by the fingers of a hand and opened sufficiently to disengage the medial loop 6 from its frictional engagement with the end of the locking rod 14. The table then being inverted, the leg frames will rock of their own accord to open vertical position, and as they do so the locking rod 14 with its associated locking bars 15 will drop by gravity into the medial loops 13 formed in the hinged sides 7—7 of the leg frames, as shown in Figures 1 and 5, in which position the table legs are locked in their open position.

To close the table the locking rod 14 may be lifted by hand to disengage the locking bars 15 and thus permit the folding of the leg frames to their folded position, or alternatively, the table can be inverted whereupon the locking rod 14 and its associated locking bars 15 will gravitate to the unlocked position, thus permitting the leg frames to be folded down into locked position, such as illustrated in Figure 2.

The precise size, shape and formation of the various parts may be modified to conform with the desired design for ornamental purposes within the scope of the present invention as pointed out in the appended claims.

Having thus fully described my invention, I claim:

1. Folding table comprising a top having a depending peripheral flange, two pairs of legs, each pair of legs connected at their upper ends by aligned hinge parts, and a medial locking loop, said locking loop formed with spaced arms parallel with the legs, parts perpendicular to the arms extending therefrom, aligned parts extending perpendicular to said last mentioned parts and parallel with the hinge parts and a medial loop connecting the inner ends of said last mentioned aligned part disposed perpendicular thereto and parallel with the spaced arms, complementary hinge members for securing the hinge parts to the under face of the table, oppositely disposed guide slots formed in the flange of the top in alignment with the medial loops in the locking loops, and a locking rod having its ends slidable in the said guide slots, said locking rod formed with transverse locking bars conforming in size and shape with the locking loops and adapted to gravitate into said locking loops when the legs are in open position, with the medial loops thereof disposed intermediate the table flange and locking loop and with the locking rod supported by said medial loops.

2. Folding table comprising a top having a peripheral flange, said flange formed with oppositely disposed guideways perpendicular to the face of the top, a locking rod formed with transversely disposed locking bars adjacent each end and arranged to slide freely with its ends disposed in said guideways, legs arranged in pairs, the legs of each pair connected at their upper ends with aligned hinge parts, and a locking loop, said locking loop including an offset medial loop formed and proportioned to receive portions of the locking rod, when the legs are in their open position, intermediate the locking bars and the table flange, adjacent the lower ends of the guideways and to raise and support said rod adjacent the under face of the table when the legs are in their folded position and complementary hinge parts securing the hinge parts of the legs against the underface of the top and perpendicular to the locking rod.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
965,338	Smiljanic	July 26, 1910
1,709,928	Whitney	Apr. 23, 1929

FOREIGN PATENTS

Number	Country	Date
319,262	France	Nov. 8, 1902