

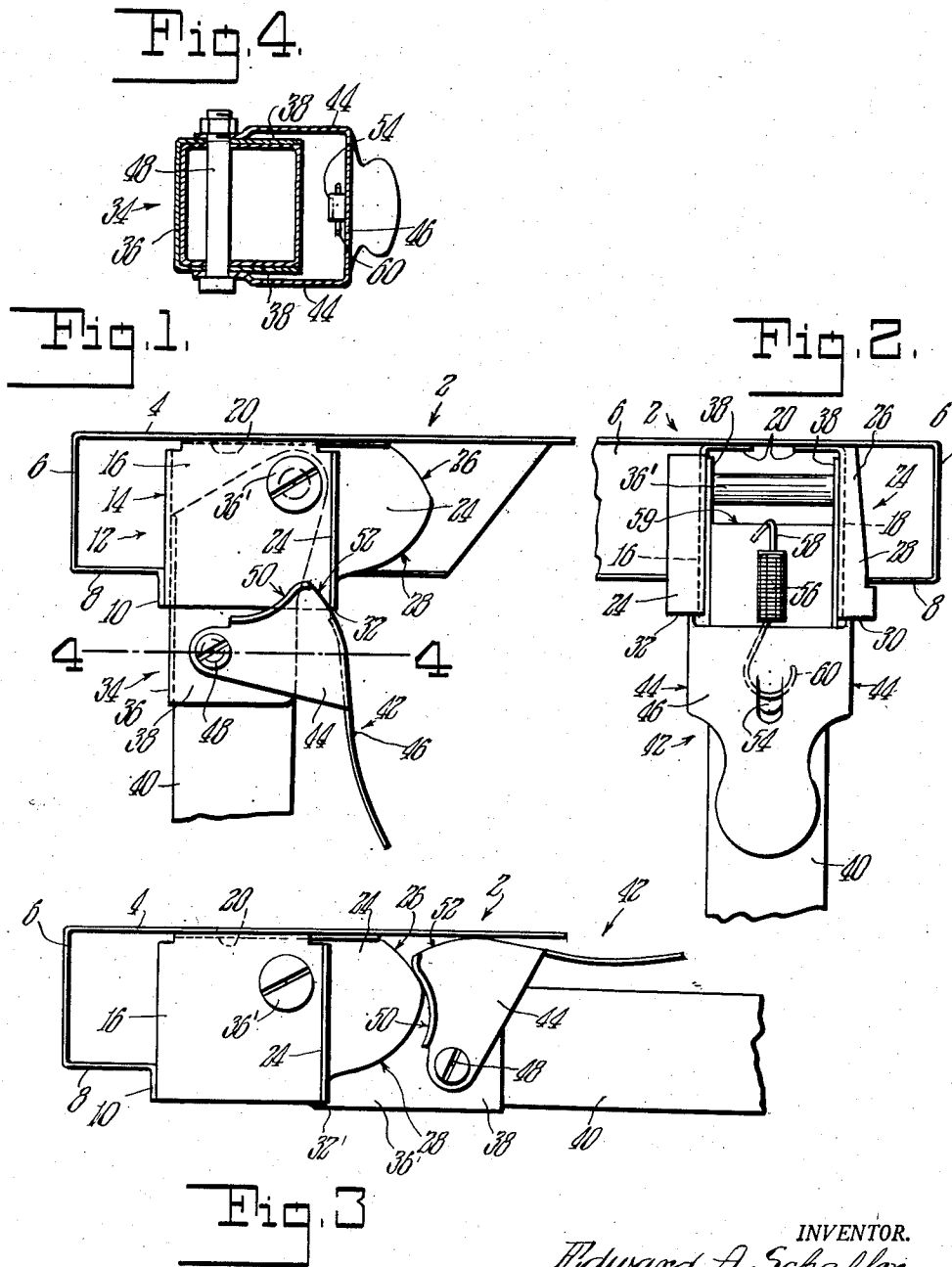
Nov. 13, 1951

E. A. SCHAFFER

2,574,592

TABLE LEG PIVOT AND LATCH MECHANISM

Filed July 18, 1949



INVENTOR.
Edward A. Schaffer
BY *Ross & Ross*
ATTORNEYS

UNITED STATES PATENT OFFICE

2,574,592

TABLE LEG PIVOT AND LATCH
MECHANISMEdward A. Schaffer, Longmeadow, Mass., assignor
to Hampden Specialty Products, Inc., East-
hampton, Mass., a corporation of Massachusetts

Application July 18, 1949, Serial No. 105,341

1 Claim. (Cl. 311-99)

1

My invention relates to improvements in table leg pivot and latch mechanism.

The principal objects of my invention are the provision of a pivot and latch mechanism for a table and leg which is constructed and arranged whereby the leg is releasably locked in extended position.

All of the above objects I accomplish by means of such structure and relative arrangement of parts thereof, as will fully appear by a perusal of the description below and by various specific features which will be hereinafter set forth.

To the above cited and other ends and with the foregoing and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claim hereunto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

Fig. 1 is a side elevational view of table and leg latch mechanism embodying the novel features of the invention;

Fig. 2 is a front elevational view of the mechanism shown in Fig. 1;

Fig. 3 is a view similar to Fig. 1 showing the parts in different relation; and

Fig. 4 is a sectional plan view on the line 4-4 of Fig. 1.

Referring now to the drawings more in detail, and referring more particularly to the preferred form of my invention selected for illustrative purposes, I have shown a bracket 2 which has an upper horizontal plate part 4 from which depend side walls 6. The side walls 6 have inwardly extending portions 8 which terminate in downwardly extending portions such as 10.

A bracket 12 is in the form of a U and has a rear wall 14 and spaced side arms 16 and 18, see Figs. 1 and 2. Upper portions 20 of the side arms are turned inwardly to underlie the plate part 4 of the bracket to which they are secured as by welding or the like.

The side arm 16 terminates in a flange 24 disposed laterally relative thereto. The side arm 18 terminates in another flange or projection 24 having downwardly and upwardly curving outer portions 26 and 28, see Figs. 1 and 3. The lower portion of this last mentioned projections 24 has an edge 30 and the first mentioned flange 24 has a lower edge 32, see Fig. 2.

The bracket parts 14, 16, and 18 are secured

2

to the portions 10 of the bracket 2 by welding or any other suitable means.

A lug member 34 is in the form of a U and has a rear wall 36 and spaced side arms 38 within the rear wall 14 and side arms 16 and 18 of the bracket 12. A pivot bolt 36' extends through the side walls 16 and 18 of the members 12 and 34 and side arms 38 of member 34 whereby the latter is pivoted to the former for swinging movements.

A tubular leg 40 is secured within the rear wall 36 and side arms 38 of the member 34 by welding or by other suitable means.

A lock 42 has side plates 44 which extend rearwardly from a forward part 46 and said side plates are pivoted to the member 34 and leg 40 by a pivot bolt 48 which extends through them, as shown.

The upper edges of the side plates 44 of the lock 42 are curved or concaved at 50, and the forward edges of said plates are convexed at 52, as shown.

A tongue 54 is struck from the forward part 46 of the lock and extends inwardly.

A spring 56 has an upper end 58 extending over the upper end 59 of the leg 40 and a lower end 60 engaging the tongue 54.

In use, the brackets such as 2 are secured to a table top. Where the top is rectangular, there will be a bracket secured in each corner.

In Figs. 1 and 2, the leg is in extended or open position as for supporting the table.

It will be noted that the edges 52 of the lock member underlie the lower edges 30 and 32 of member 12. The spring 56 urges the lock member upwardly so that the abutting edges releasably hold the leg from swinging counterclockwise to a collapsed position.

To swing the leg 40 to the collapsed position of Fig. 3, the lock 42 is depressed towards the leg 40 against the action of the spring 56 and the leg is swung upwardly or counterclockwise from the position shown in Fig. 1. The lock is depressed sufficiently for the upper portions of the edges 52 thereof to pass beneath the edges 30 and 32 as the leg swings counterclockwise. When the lock has passed said edges 30 and 32, it may be released and as the leg is swung counterclockwise to a collapsed position, as shown in Fig. 3, the upper part 50 of the lock slides on the surface 26 of the member 24. The spring action causes the leg to be yieldingly and releasably locked in a collapsed position. That is the spring urges the lock counterclockwise on the leg so that the upper part of the lock, as shown in

3

4

Fig. 3 bears on the upper part 20 of member 24.

In swinging the leg clockwise toward the extended position, it is not necessary to manipulate the lock 42. During the swinging of the leg the upper part of the lock slides off part 26 of member 24 onto part 28 thereof into the lower edges 30 and 32 of member 12 which edges swing the lock clockwise relative to the leg. As the leg approaches the extended position the upper end of the lock snaps by the edges 30 and 32 in the position shown in Fig. 1. In this position the upper end of the lock is wedged behind the edges 30 and 32 of member 12, and releasably locks the leg in extended position.

It will be observed that the construction is devoid of cams, notches or slots which as they become worn cause lost motion and play. In my construction, the parts take up for wear and obviate lost motion and play of the parts.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and not as being restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claim are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

Mechanism for pivoting and releasably locking a leg in collapsed and extended positions relative to a table comprising, a bracket having a horizontal upper part, a second bracket secured thereto having a rear wall and spaced side arms adjacent thereto and depending vertically from

said horizontal part, said side arms having forward lower edges and one of said side arms having a nose portion extending forwardly from the lower edge thereof which is provided with a forward edge that curves forwardly and upwardly and then inwardly and upwardly, an upper portion of a leg between the side arms of said second bracket and pivot means connecting said leg portion and side arms for swinging of said leg between collapsed and extended positions, a lock member having side portions disposed on opposite sides of said leg portion and pivot means connecting said side portions and leg portion, spring means connecting said lock and leg portion and urging said leg counterclockwise relative to said leg in locking direction, said lock provided with upper forward convex portions for disposition below and behind the forward lower edges of the second bracket for releasably holding the leg in extended position and having an upper concave portion for sliding on the said nose portion as the leg portion is swung to collapsed position and for sliding over said lower edges as the leg is swung to extended position.

EDWARD A. SCHAFER.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,879,945	O'Connor	Sept. 27, 1932
1,910,974	Vance	May 23, 1933
1,916,823	Boeswinkle	July 4, 1933
1,962,126	Anderson	June 12, 1934
2,082,013	Lewis	June 1, 1937
2,215,093	Boardman	Sept. 17, 1940
2,271,332	Ellington	Jan. 27, 1942