Aug. 2, 1932. A. R. C. HOURD 1,869,693

FOLDING TABLE

Filed March 14, 1930

Fig. 1.

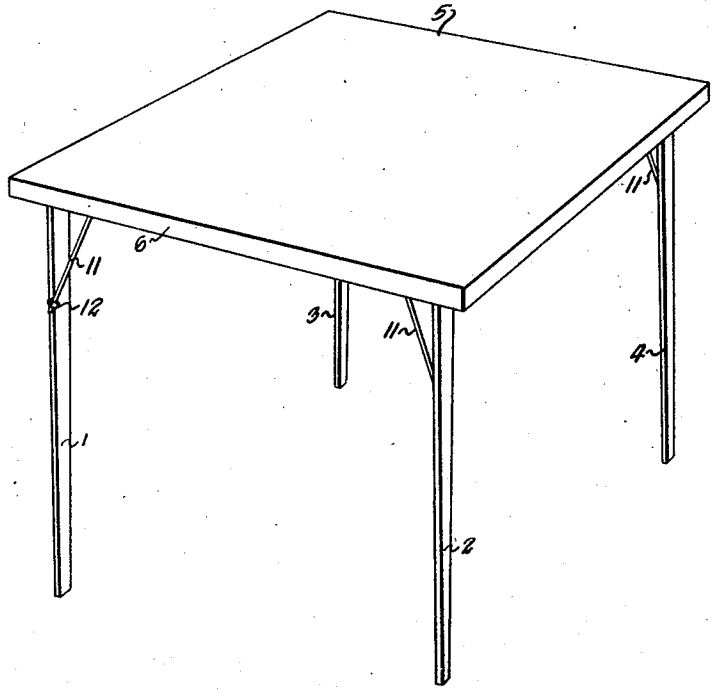


Fig. 2.

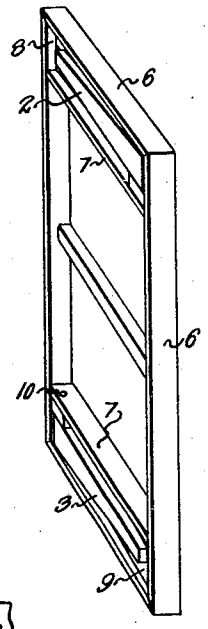


Fig. 3.

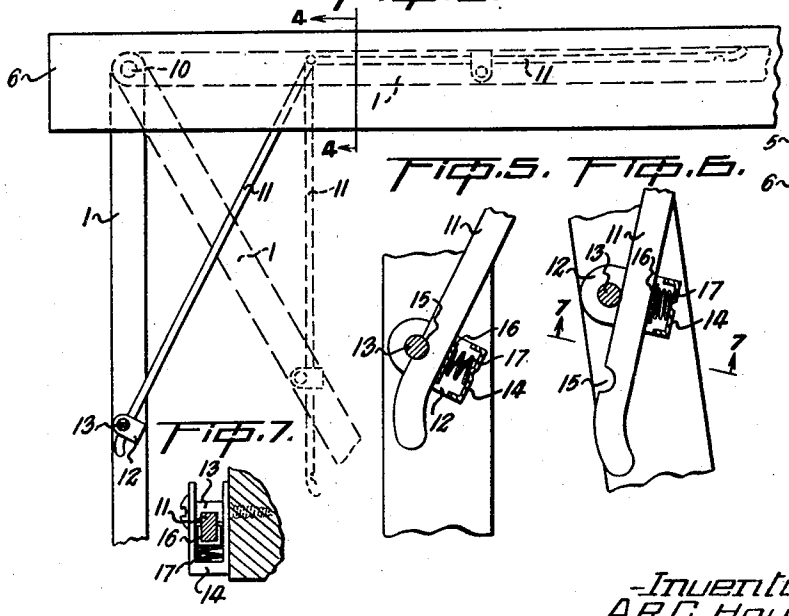


Fig. 4.

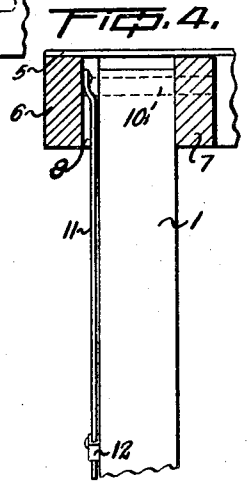


Fig. 5. Fig. 6.

Fig. 7.

-Inventor-
A.R.C. Hourd
By Arthur Langlois Atty

Patented Aug. 2, 1932 1,869,693

UNITED STATES PATENT OFFICE

ARTHUR REYBURN CLARENCE HOURD, OF LONDON, ONTARIO, CANADA

FOLDING TABLE

Application filed March 14, 1930. Serial No. 435,931.

My invention relates to improvements in folding tables, and the object of the invention is to construct a table of rigid and durable construction, and a further object of my invention is to produce a table in which the legs can be locked in their extended position against accidental displacement.

Instability is the greatest objection to folding tables, for though comparatively rigid when new, they as a general rule, lose their rigidity after being in use for some little time.

Another object of my invention is to provide strut members for retaining the legs in their extended position, and to furnish tension springs for retaining a resilient pressure between the struts and the legs, and a still further object of my invention is to utilize the tension of the springs for retaining the legs in their folded position when not in use.

My invention consists of a table constructed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawing in which:—

Fig. 1 is a perspective view of my table, the legs thereof being unfolded.

Fig. 2 is a perspective view of the table with the legs thereof folded.

Fig. 3 is an enlarged side elevational view of the fragmentary portion of the table.

Fig. 4 is a vertical cross-sectional view taken through the line 4—4 Fig. 3.

Fig. 5 is a further enlarged view of a fragmentary portion of one of the table legs and a strut therefor, the connection between the leg and the strut being shown in section.

Fig. 6 is a similar view to Fig. 5, showing the leg partially folded, and

Fig. 7 is a cross-sectional view taken through the line 7—7 Fig. 6.

In the drawing like characters of reference indicate corresponding parts in the different views.

My table comprises a top and four legs, 1, 2, 3 and 4 which extend from the corners thereof, such top can be of square or rectangular form dependent upon the use to which the table is put. The top consists of a top face portion 5 formed of a sheet of substantially thin material and supported upon a frame, the members 6 of which are deeper than the thickness of the top 5.

Extending parallel and adjacent to two opposite side frame members 6 I furnish brace members 7 of the same depth as the members 6, so that two inverted channels 8 and 9 are formed upon the opposite sides of the top of the table underneath the top face 5. These channels are adapted to receive the legs when folded, the channel 8 receiving the legs 1 and 2 and the channel 9 receiving the legs 3 and 4. The legs are pivotally mounted at their upper ends upon pins 10 which extend across the ends of the channels, and as the two legs in each channel fold one on top of the other the pin 10 in one end of the channel is close to the table top 5 and the pin 10 at the other end of the channel close to the bottoms of the members 6 and 7.

From the foregoing description it will be apparent that the legs are contained within the channels 8 and 9 when they are folded and when they are unfolded are swung downwardly above the pins 10 into the position illustrated in Fig. 1.

For retaining the legs in the extended position I furnish a strut 11 for each leg, such struts being pivoted at their upper ends to the inner faces of either of the members 6 and 7, the strut and one leg in each groove being pivoted to the member 6 and the strut and the other leg pivoted to the member 7.

Intermediately of the length of the legs I furnish strut-engaging members 12 of substantially U-shaped cross-section and pivoted to the legs upon pins 13 which are threaded into the legs. The struts extend through the members 12 between their bottoms 14 and the pins 13, and are formed in the vicinity of the lower ends with notches 15 which engage the pins as illustrated in Fig. 5, thus retaining the legs against swinging movement.

The members 12 contain U-shaped members 16 which bear against the edges of the struts opposite the edges in which the notches are contained, and 17 are springs inserted between the bottoms 13 of the members 12 and the bottoms of the U-shaped members 16. It will thus be seen that the springs exert a pressure between the bottoms of the members 12

and the struts keeping the struts in close contact with the pins 13 so that when the legs are swung downwardly into the extended position the notches 15 engage the pins 13 and can only be removed from engagement through manual movement of the struts against the springs 17; when of course the legs are at the same time swung so that the notched portions of the struts pass out of the U-shaped members 12 as illustrated in Fig. 6.

Upon reference to the dotted portions of Fig. 3 it will be seen that when the legs are folded and contained within the channels under the table the struts 11 lie in parallel relation beside their legs and through the pressure of the springs 17 such legs are frictionally retained in their folded position. As the legs are swung downwardly in carrying them to the extending position the struts 11 pass through the members 12 as also illustrated in dotted lines in Fig. 3 until the legs reach the fully extended position wherein the notches 15 come into engagement with pins 13 under the influence of springs 17. When it is desired to fold the table legs it is only necessary to press the struts 11 away from pins 13 and swing the legs wherein the struts slide through the portions 12.

From the foregoing description it will be seen that I have devised a simple and yet very rigid folding table construction in which the leg supporting struts rigidly engage the legs through the medium of the members 12 when the legs are in the extended position, and furthermore by the use of the springs 17 for retaining the notches 15 in engagement with the springs 13 there is no possibility of the engagement between the struts and the legs becoming loose and the legs accidentally folding. Although I have shown and described a particular embodiment of my invention it is to be understood that I can make such changes and alterations as I may from time to time deem necessary without departing from the spirit of my invention as set forth in the appended claims.

What I claim as my invention is:

1. In a table of the character described, a leg pivotally secured to the table top, a strut pivotally secured to the table top and angularly inclined to the leg when such leg is in the extended position, a substantially U-shaped member secured to the leg and through which the strut extends, a pin extending through the open end of the U-shaped member into the leg, a member slidably engaging the strut contained within the U-shaped member, and a spring positioned between the bottom of the U-shaped member and the strut engaging member.

2. In a table of the character described, a leg pivotally secured to the table top, a strut pivotally secured to the table top and angularly inclined to the leg when such leg is in the extended position, a substantially U shaped member secured to the leg and through which the strut extends, a pin extending through the two portions of the U shaped member in the vicinity of its open end, the U shaped member being so positioned upon the leg that the upper face of the strut is adjacent to the pin, and a spring contained within the U shaped member and positioned between the bottom of the U shaped member and the lower face of the strut to retain the strut in frictional engagement with the pin.

ARTHUR REYBURN CLARENCE HOURD.