June 2, 1942. C. H. FERRELLE 2,284,811

FOLDING TABLE

Filed Oct. 30, 1939

Fig. 1.

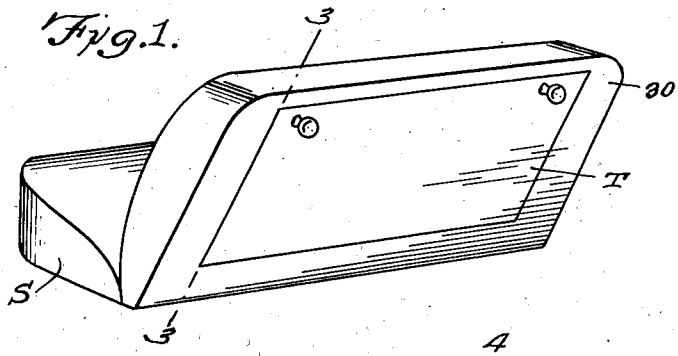


Fig. 2.

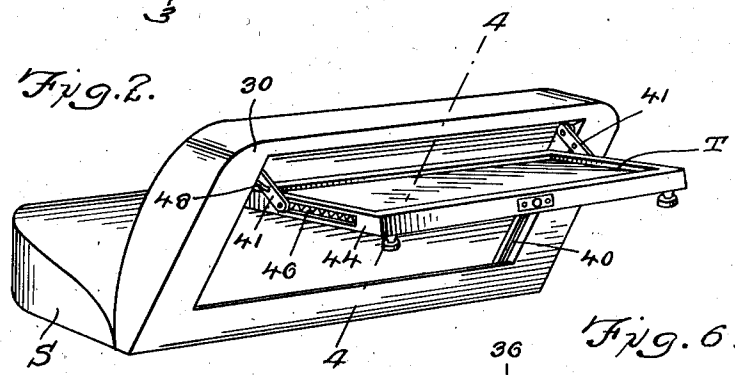


Fig. 6.

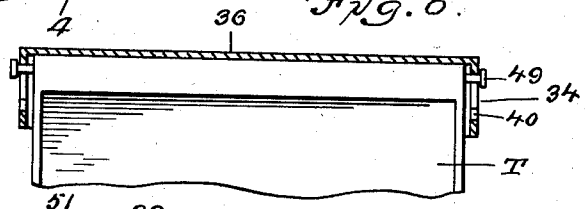
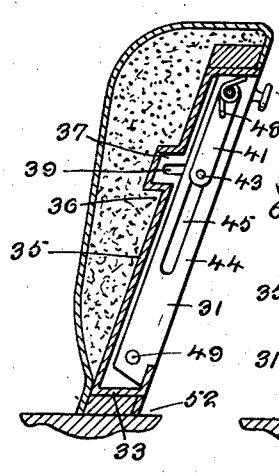


Fig. 3.



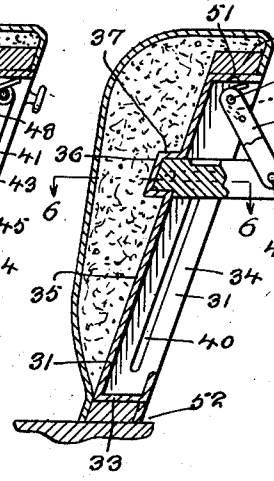


Fig. 4.

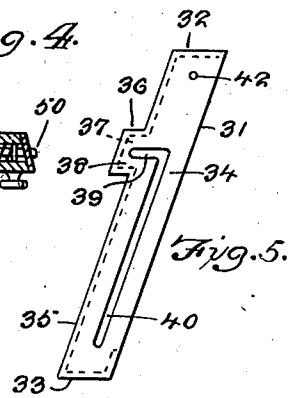


Fig. 5.

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UNITED STATES PATENT OFFICE

2,284,811

FOLDING TABLE

Charles H. Ferrelle, Savannah, Ga.

Application October 30, 1939, Serial No. 302,052

3 Claims. (Cl. 155—123)

My invention relates to folding tables and the like and particularly to a type foldable within the back of a motor vehicle seat.

One of the principal objects of my invention is to provide a table having support means adapted to be contained within the back of a motor vehicle seat, said table being operable to extended position from the back of said seat for various uses.

Another object of my invention is to provide a table of the character described equipped with supporting means for maintaining the top of the table disposed horizontally relative to the floor of a motor vehicle.

A further object of my invention is to provide a table of the character described capable of being attached or built in the back of seats of motor vehicles and which is simple in construction, durable in use, efficient in operation and economical in manufacture.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a rear perspective view of a motor vehicle seat illustrating my invention applied thereto,

Figure 2 is a similar view showing the table in extended operative position,

Figure 3 is a vertical sectional view taken on line 3—3 of Figure 1 with the table in retracted position,

Figure 4 is a vertical sectional view taken on line 4—4 of Figure 2,

Figure 5 is an end elevational view of the frame, and

Figure 6 is a fragmentary horizontal sectional view taken on line 6—6 of Figure 4.

Referring to the drawing wherein is illustrated a preferred example of the invention S designates a motor vehicle seat of conventional construction but in which the back supporting structure is modified to provide, in the rear side 30, a chamber forming recess suitable for the accommodation of a top forming member or table T.

Within the recessed compartment of the back is mounted a lining frame or shell 31, open at the front and having top, bottom and side wall sections 32, 33, and 34 projecting angularly from a rear or inner wall 35. At a position adjacent to but spaced below the top wall section 32 and extending longitudinally in a horizontal direction is in the form of the invention illustrated in the drawing, the rear wall 30 of the back is apertured and receives therein the shell 31 which is provided with an open front and with top, bottom, side and rear walls, 32, 33, 34 and 35 respectively. Subjacent the top wall 32 the rear wall 35 of the shell is fashioned with an inwardly extending section 36 forming a cul-de-sac or pocket 37 provided with side walls 38 formed with horizontally disposed slots 39, the outer ends of the latter communicating with the upper ends of upwardly extending slots 40 formed in the side walls 34 of the shell. In this construction, a pair of links 41 are pivoted to the upper section of the side walls 34 subjacent the top wall 32 by means of pivot pins 42. The links 41 are pivoted at their lower ends to a table T by means of pins or trunnions 43 as hereinafter set forth.

The table T is in the form of an elongated flat member preferably having the top face recessed and is provided with side rails 44 formed with registering lengthwise extending slots 45 in which are mounted springs 46. Extending through the slots 45 are the inwardly disposed ends of the trunnions 43, the outer ends of which are fixed to the lower ends of the links 41 and which serve as sliding pivots therefor. The trunnions 43 are disposed towards the rear ends 47 of the slots 45 and are engaged by the ends of the springs 46, the opposite ends of said springs engaging the opposite ends of the slots as clearly illustrated in Figure 4.

The pivot pins 42 have mounted thereabout coil springs 48, one end of each spring being fixed to the upper end section of the respective link 41 and the opposite end of the spring engaging the under face of the top wall 32 of the shell, thus when the table is moved to extended position, as illustrated in Figure 4, the springs 48 are in tensioned condition.

The side rails of the table adjacent the rear rail thereof, are each provided with an outwardly extending trunnion 49 for sliding engagement in the respective slots 39 and 40 of the shell as hereinafter set forth. The front end of the table T is provided with a spring actuated latch bolt 50 adapted for engagement within a recess 51 formed in the under face of the top wall 32 of the shell whereby to maintain the table in latched condition when the same has been moved to a closed position within the shell.

In use, the table being disposed in closed position within the shell as illustrated in Figures 1 and 3 of the drawing, the upper end of the table is pivoted outwardly through the medium

of the links 41 causing the trunnions 49 to ride upwardly in the slots 40 of the side walls 34.

When the trunnions 49 engage the top walls of the slots 40 the table is moved inwardly in a manner to dispose the trunnions within the slots 39 and the rear rail of the table within the pocket 37 whereby said table is maintained in a horizontal position relative to the floor 52 of the motor vehicle as clearly illustrated in Figures 2 and 4 of the drawing. When thus positioned, the springs 46 act on the trunnion 43 and serve to maintain the latter against the rear walls of the slots 45 thereby causing the rear end of the table to be maintained in the pocket 37. When the table is in closed position (Figure 3) the springs 48 serve to prevent accidental outward movement thereof and also prevent rattle and the like. A reverse operation serves to effect closing of the table within the shell whereby the table is maintained therein through the medium of the latch 50 engaging within the recess 51 and the springs 48 as heretofore set forth. When the table is being operated from closed to open position the springs 46 serve to accelerate and facilitate the operation.

From the foregoing it will be apparent that I have provided a simple and efficient device whereby the rear of a motor vehicle seat may be utilized for housing a table therein, said table adapted to be readily extended to a horizontal position relative to the floor of the vehicle and utilized for many useful purposes.

It is also obvious that the invention is not confined to the herein described use therefor as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrative of the principles of operation, which are capable of extended application in various forms, and that the invention comprehends all construction within the scope of the appended claims.

What I claim is:

1. A device of the character described, comprising, in combination, a motor vehicle seat having a back, a frame mounted within said back and fashioned with upwardly extending slots having horizontally disposed upper end portions, a table slidable within and pivoted to said frame and provided with trunnions operable within said slots whereby to position said table in extended position relative to said back when said trunnions are moved into said end portions, and links pivotally connected to the said frame having studs in their outer ends pivotally and slidably engaging means on the table to support the same when the trunnions are moved into the end portions of the slots.

2. A device of the character described, comprising, in combination, a motor vehicle seat having a back, a frame mounted within said back and fashioned with upwardly extending slots having horizontally disposed upper end portions, a table slidable within said frame and provided with trunnions operable within said slots whereby to position said table in extended position relative to said back when said trunnions are moved into said end portions, and links pivoted within said frame and provided with means pivotally and slidably operable in slots in the sides of the table to support said table when said trunnions are moved into said end portions.

3. In a device of the character described, the combination of a motor vehicle seat having a back, the said back being recessed in its rear portion to form a compartment therein, a frame mounted within the said compartment having a slot in each end portion extending from the bottom to a point short of the top and opening into a horizontally directed slot, a table shaped to fit within the compartment in closed position having trunnions at the end thereof slidable in the said slots for supporting the table in extended operative position, the said table having slots in the ends thereof, and a pair of links pivotally connected to the ends of the frame having studs slidably engaging the slots in the table for supporting the table in extended position.

CHARLES H. FERRELLE.