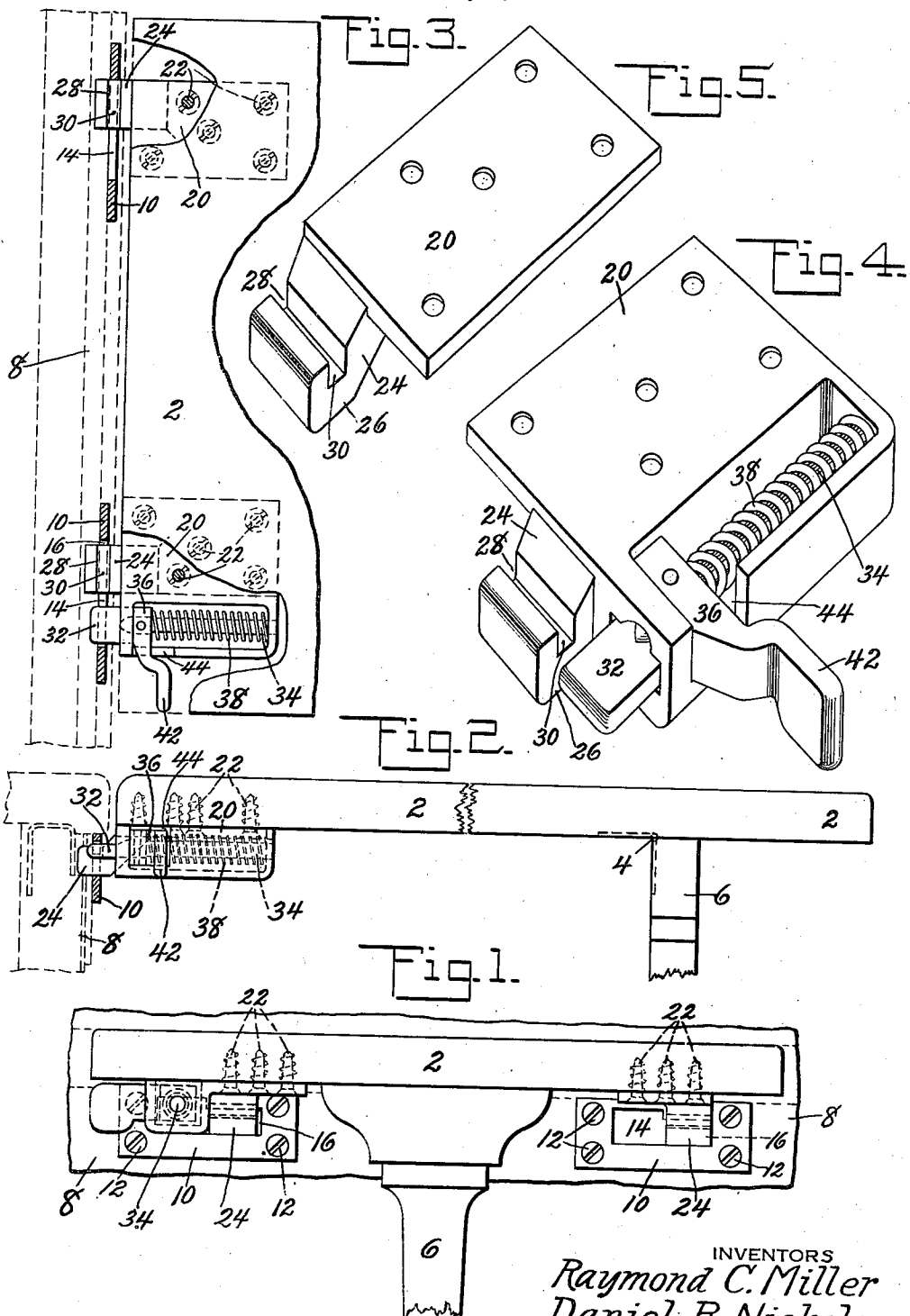


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R. C. MILLER ET AL
REMOVABLE FOLDING TABLE

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INVENTORS
Raymond C. Miller
Daniel R. Nichols
BY *Donald U. Rich* ATTORNEY

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REMOVABLE FOLDING TABLE

Raymond C. Miller and Daniel R. Nichols, Berwick, Pa., assignors to American Car and Foundry Company, New York, N. Y., a corporation of New Jersey

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1 Claim. (Cl. 311—19)

This invention relates to folding tables in general and in particular to removable folding tables particularly adapted for use on vehicles.

There has been a tendency among passenger carriers within the last few years to attract added revenue by speeding up service and by increasing the comfort and pleasure of passengers during their journey through added personal service. Various means have been employed to accomplish this, among which is the provision of removable tables obtainable upon request and upon which light meals may be served, correspondence taken care of or games played. These tables must be readily removable for storage, light in weight yet very rigid when locked in place upon the vehicle structure and of such a construction as to prevent any accidental removal or collapse. It is an object, therefore, of the present invention to provide a removable folding table which may be rigidly locked to the vehicle structure.

A further object of the present invention is the provision of a removable folding table which is supported at one edge by a folding leg or other means and rigidly locked to the vehicle structure at the other edge.

A yet further object of the invention is the provision of a removable folding table which is automatically locked to the vehicle structure by insertion of a part into the vehicle structure followed by a lateral movement of the table substantially parallel to the vehicle structure.

These and other objects of the invention will be apparent to persons skilled in the art from a study of the following description and accompanying drawing in which:

Figure 1 is an end view of the table locked in position on the supporting vehicle structure;

Fig. 2 is a side elevational view of the table shown in Figure 1;

Fig. 3 is a plan view of a portion of the table with parts broken away to more clearly disclose the securing means;

Fig. 4 is an enlarged perspective view of the locking and securing member carried at one side of the table, and

Fig. 5 is an enlarged perspective view of the securing means carried at the other side of the table.

Referring now to the drawing in detail, it will be seen that the table is formed by a top portion 2 to which is hinged adjacent one end as at 4 a leg 6, while at the other end locking and supporting means are provided by which the top portion is engaged with and supported by the vehicle structure 8 as shown in Figures 1, 2 and 3. A

pair of substantially identical anchoring plates 10 are secured upon the vehicle structure by any suitable means such as screws 12 and each of these plates is formed with an L-shaped slot, thus providing a relatively large portion 14 and a relatively narrow portion 16. It will be particularly noted that as shown in Figure 2 the anchoring plates 10 are attached to the vehicle structure in an out-of-the-way position and that no portion projects into the passenger space thus preventing any possible damage to passengers or their clothing.

The locking and supporting means secured to the inner end of the table top portion are generally identical in form and insofar as identical similar reference numerals will be applied thereto. Each of the locking and supporting means is formed with a flat plate like portion 20 adapted to be secured to the under side of the table top by screws or other means 22 and with a downwardly and outwardly projecting lug 24. This lug is formed with a lower surface 26 substantially parallel to the plate portion 20 and with an upwardly opening channel portion 28, the width of which is substantially equal to the width of the anchoring plate 10 and the depth of which is so chosen that the metal remaining between the bottom 30 of the channel and the flat portion 26 will be substantially equal in depth to the width of the restricted slot 16. At least one of the locking and supporting means is formed with an extension mounting the safety lock preventing removal of the table. As shown in Figure 4 this extension is formed as an open sided box within which is slidably mounted a bolt having a head portion 32 and a stem 34 to which is attached an operating arm 36. In order to urge the bolt toward locking position at all times the stem 34 is surrounded by a spring 38, one end of which bears against the operating arm, while the other end bears against the inner surface of one end of the open sided box like extension. As clearly shown by this Figure 4 the operating arm is formed with a finger engaging portion 42 extended outwardly through a slot 44 in the box like extension, thus permitting the bolt to be retracted against the action of the spring. As clearly shown by the figures the bolt head is flattened and prevented from rotating by guiding slots in the box like extension and this bolt head is of such a width and its position is so chosen as to engage within the large opening 14 of the L-shaped slot in the anchoring plates during such time as the lugs 24 occupy the restricted opening 16.

The operation of the table mechanism is as

follows, assuming the table as removed from the vehicle structure: The table will be placed substantially in position with the lug heads directed into the large openings 14 and the bolt head 32 engaging the outer surface of the anchoring plates. Upon the pressing of the table inward the lugs enter the enlarged openings and preferably strike a portion of the vehicle structure arresting further inward motion, after which a lateral movement of the table will cause the upwardly opening channel to engage the anchoring plate at the restricted portion, that is, the metal of the lug lying between surface 26 and the bottom 30 of the channel will substantially occupy the restricted opening 16 with the head of the lug engaged behind the anchoring plate, thus holding the table from outward movement or further lateral movement in the same direction in which it was moved to engage the anchoring plate. During the movement of the table toward the vehicle structure the bolt has been retracted by pressure upon its head portion and as soon as the lugs have been fully engaged within the restricted portion, after the lateral sliding of the table, the bolt will spring from its retracted position to the position in which it is located within the large opening 14, thus preventing any lateral movement of the table in a table removing direction. To remove the table it is only necessary to apply pressure to the operating handle 36, thus retracting the bolt, after which the reverse of the above described movements will release the table from the vehicle structure.

While the device has been described more or

less in detail, it is obvious that various modifications and rearrangements of parts will suggest themselves to persons skilled in the art and all such modifications and rearrangements of parts are contemplated as fall within the scope of the following claim.

What is claimed is:

The combination of a supporting structure, anchor plates secured to the structure and each having L-shaped slots formed therein with one of the legs thereof disposed substantially horizontal and the other substantially vertical, a table, projections secured to one end of the table and engageable within the slots, said projections being formed with U-shaped grooves of a width substantially equal to the thickness of the anchor plates and being engageable within the slots by lateral insertion in one leg and the area common to both legs of each L-shaped slot and by a horizontal shifting along the other leg whereby the U-shaped grooves engage one of the walls of the anchor plates defining the horizontal leg of the slot to retain and support the said end of the table, and locking means carried by the table and engageable in at least one of the L-shaped slots, said locking means being spring urged outwardly from the table and being so positioned that it will automatically engage in the unoccupied portion of the slot after horizontal movement of the table, whereby the U-shaped projections are retained in inter-engagement with portions of the walls of the anchor plates.

RAYMOND C. MILLER.
DANIEL R. NICHOLS.