This invention relates to improvements in a child's chair for use in automobiles as a removable attachment applicable to the regular seats thereof.

An object of the invention is to afford a child's chair provided with means capable of easy manipulation by which the child's chair is firmly secured in position on the seat cushion and against the back-rest cushion of the usual type in an automobile.

Another object of the invention is to provide a child's chair attachable to the regular seat and back-rest cushions of an automobile and provided with base members by which to hold the chair in operative position in connection with the seat cushion in such manner as to prevent accidental dislodgment from its operating position thereon and which by simple manipulation of the base members permits removal of the chair conveniently without disturbing the seat cushions.

Other objects and advantages of the invention appear in the following description.

An illustrative embodiment of the invention is shown in the accompanying drawings, in which:

Fig. 1 is a side elevational view of an automobile seat provided with seat and back-rest cushions arranged as in common practice and having mounted thereon in operative position a child's chair in which the invention is incorporated;

Fig. 2 is a detail view showing a fragmentary rear elevation of the supporting frame for the chair, and one of the base members in engaging position;

Fig. 3 is a side view of one of the base members upon which the chair is adjustably mounted, said member being in engaging position;

Fig. 4 is a side elevational view of the base member projected from Fig. 3 as it appears when positioned for insertion between the seat and back cushions of the automobile;

Fig. 5 is a transverse sectional view of Fig. 3 on the line 5-5 thereof.

Fig. 6 is a perspective view of a jam-bar used in the chair structure;

Fig. 7 is a fragmentary perspective view of one of the forelegs of the chair; and

Fig. 8 is a perspective view of one of the operating rods, a portion being broken away.

The illustrative embodiment of the invention consists of a seat 1 that is supported upon a pair of U-shaped supporting frames 2 one at each side thereof having upright parts constituting fore and rear legs 3 and 3' respectively. A pair of base members 4 extend loosely through the lower leg portions of the corresponding supporting frames and upon which said frames are slidable longitudinally when said base members are angularly turned to a certain position, hereinafter referred to.

Each base member 4 has a straight shank 5, the forward end of which is bent at right angles to form a lever 6, the free end terminating preferably with a knob 7 to prevent injury to the auto seat cushion when the chair is in place thereon. The rear portion of the base member has thereon a ridge 8 that is offset from and parallel with the axis of the shank, said portion being oblong in cross-section (Fig. 5), its rear end having an angular extension 9 the free end of which terminates with a forwardly extending stub 10 that is rounded to prevent injury to the seat cushion when applied thereto, said extension constituting a hook. The ridge preferably has made in its crest a series of notches 4' that are engageable by a jam-bar 11 mounted movably in connection with the corresponding rear leg 3', that is controlled by an operating rod 12.

A compression spring 13 is interposed between the rear leg and jam-bar and is adapted to throw the jam-bar out of engagement with the ridge 8 on the base member upon elevation of the forward end of the operating rod, thus to permit the chair to be slid forwardly on the base members. The ends of the jam-bars are notched and their medial portions have made therein vertically elongated slots 11'. The upper ends of the jam-bars are disposed astride corresponding lugs 12' on the rear legs, and the lower ends of said jam-bars straddle the corresponding base members. The lengths of the jam-bars are such that when the jam-bars are swung rearwardly they have binding action against the corresponding base members thus locking said members in their frames.

The end portions of the operating rods 12 are flattened along the sides thereof to provide corresponding fore and rear shoulders, 12a and 12b respectively. The rear end portion of each operating rod projects through the slot 11' in the corresponding jam-bars and through an opening 12' in the adjacent rear leg 3' in which it has axial play, and the rear shoulders 12b on the rod bear against the jam-bar. The forward end portion of the jam-bar protrudes through a vertically elongated slot 14' in the corresponding foreleg 3 in which it has vertical movement, and its fore shoulders 12a bear against the rear face of the foreleg, thus when the operating rod is swung to its lowermost position end thrust of the rod.
is applied to the jam-bar moving it into locking position. A rearwardly projecting bend 14 on the foreleg has frictional engagement with the shoulders 12a on the operating rod upon movement thereof downwardly to its lower position thus to hold the operating rod and jam-bar in locking position.

In the present invention there is made in each rear leg 3 an oblong opening 8' for accommodation of the ridge 8 on the corresponding base member when said member is turned upon its axis to a certain position, which opening is restricted sufficiently to prevent the base member from being so turned while the ridge projects into the opening. In this manner the base members become locked against angular rotation in the supporting frame while the chair is in operative position on said members. However, when the chair is in a forward improper position on the base members to where the rear legs are clear from the ridges thereof, said members may then be angularly turned freely, thereby permitting their hooks to be moved into a horizontal or vertical planes as desired by manipulating their levers.

In connection with the seat 1 are mounted folding arm-rests 15 supported by swiveling posts 16 pivotally connected with said arm-rests and with the frames, each post having at its lower end a backturned extension 17 that comes into contact with the bottom of the seat 1 thus constituting stops that limit the unfolding forward movement of the arm-rests. Preferably, there is provided in connection with the folding arm-rest structure a harness consisting of straps 18 arranged in a suitable manner for securing the occupant of the chair to the frame to prevent the occupant from dislodgment in the event of the occurrence of sudden jolting or bounding of the automobile.

Operation.

In applying the chair to the automobile seat, the operating rods 12 are raised at their forward ends to unlocking position, after which the base members are slid forwardly so that the ridges 8 clear the rear legs 3', the levers 6 then are turned upwardly in vertical planes causing the hooks 9 to move into a horizontal plane. The chair and base members are then placed upon the seat cushion 19 of the automobile and the base members and the chair structure are then thrust rearwardly on the cushion so that the hooks 9 while in the horizontal plane are introduced between the seat cushion and the overhanging back-rest cushion 20. By turning the levers 6 from their vertical positions toward each other down upon the seat cushion to horizontal positions, the hooks 9 thereof turn downwardly so that their nubs engage the seat cushion at the back end thereof while the ridges 8 face upwardly so as to permit their reception into the oblong openings 8' in the rear legs. While the base members are thus positioned the chair structure thereon is bodily forced by the operator firmly against the back-rest cushion 23 where it is held in operative position upon movement of the rods 12 into lower position to cause locking engagement of the jam-bars with the ridges on the base members. The chair structure is in this manner firmly held against the seat and back-rest cushions. Removal of the apparatus is accomplished by raising the forward ends of the rods 12 thus releasing the jam-bars from engagement with the base members to permit the chair structure to be slid forwardly on the base members until the rear legs clear the ridges. By then turning the levers 6 upwardly the hooks are returned to horizontal position permitting their removal from between the cushions of the automobile seat.

Variations from the precise construction herein disclosed may readily be made by exercise of engineering skill without departure from the spirit or scope of the invention, and the following claims are intended to be inclusive of such variations.

What I claim is:

1. A seat for an automobile seat consisting of a child's chair including a seat and supporting frames thereon, one at each side thereof constituting fore and rear legs, base members extending through openings in said legs adjacent the bottoms thereof, the forward portions of the members being turnable in the legs, the openings in the rear legs being oblong, said members having on their rear portions ridges that enter said oblong openings upon relative rearward movement of said frames on said members to prevent angular turning movement of said members in said frames, the rear end of each member having an angular position and terminating with a nub constituting a hook, the forward end of each member having a lever by which to turn the member, said hooks when turned to a horizontal position being adapted to be introduced between the seat and back-rest cushions of the automobile and when turned downwardly engage the rear end of said seat cushion to secure said member in operative position, locking means in said frames engageable with means on said ridges to prevent forward movement of the frames on said members, and a folding arm structure connected with the seat having limited forward unfolding movement relative thereto.

2. A child's chair attachment for an automobile seat, said attachment consisting of a seat having frames at the sides thereof constituting fore and rear legs, base members moveable longitudinally in said frames axially and angularly when in selected positions, the openings in the rear legs being oblong, said base members having ridges that enter the oblong openings when said members are in a selected position and the frames are moved backwardly thereon, said members terminating at their rear ends with hooks that are insertable between the seat and back-rest cushions of the automobile when in one position and engage the rear end of the seat cushion when in another selected position, the forward ends of said members having levers by which to turn same angularly upon their axes, and locking means engageable with means on said ridges when the hooks are engaged with said seat cushion and the chair is moved back to operative position against said cushions.

3. A child's chair attachment for an automobile seat including a seat having supporting frames at the sides thereof, and base members longitudinally and angularly movable in said frames, having hooks at their rear ends movable selectively into a horizontal plane and into vertical planes accordingly as said members are angularly turned, and provided at their forward ends with levers for actuating same, said members having means engageable with said frames to prevent angular turning movement of said members when the chair is in operative position.

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