To all whom it may concern:

Be it known that I, Theodore W. Washburn, a citizen of the United States, residing at Baldwinsville, county of Worcester and State of Massachusetts, have invented an Improvement in Children's Chairs, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to children's chairs of that well known type in which the seat is sustained by two pairs of legs that are pivotally connected together in such a way that by spreading the legs more or less the seat can be placed at any desired elevation.

The object of the invention is to provide a simple and effective locking device for holding the legs spread more or less depending on the height at which it is desired to place the seat.

The features wherein my invention resides will first be described and then pointed out in the appended claims.

Referring to the drawings, Figure 1 is a side view of a chair embodying my invention; Fig. 2 is a front view thereof; Fig. 3 is a side view showing the chair lowered; Fig. 4 is a plan view of the legs and locking device of the chair with the seat shown in dotted lines, said figure showing the position of the parts when the seat is raised; Fig. 5 is a similar view showing the parts with the seat lowered; Fig. 6 is a section through the seat on substantially the line \( w-w \), Fig. 4; Fig. 7 is a view similar to Fig. 6 showing a different form of the invention.

The seat is designated generally by 3 and it may have any suitable or usual construction and is supported by two pairs of legs 4 and 5 which are pivotally connected together in usual manner as at 6. The seat has secured thereto brackets 7 to which are pivoted the upper ends of the legs of one pair and has pivotally connected thereto links 8 which are pivot to the legs of the other pair. The parts thus far described are such as are usually found in chairs of this character and form no part of my present invention.

My improved locking device comprises a rotary toothed member which may conveniently be in the form of a ratchet wheel which is sustained by the seat and which is pivotally connected to the legs of one pair so that as the legs are spread more or less for lowering or raising the seat, the rotary member will be turned. A locking pawl cooperates with the toothed member for locking it in any desired position.

In one embodiment of my invention I use two toothed members and in another embodiment I employ one toothed member only. Referring first to the embodiment employing two toothed members, which embodiment is illustrated in Figs. 1 to 6, said toothed members are designated by 9 and they are pivotally mounted on a bracket or support 10 which is secured to the chair seat beneath the same. These toothed members 9 are arranged horizontally with their pivotal axes 11 extending vertically. Each toothed member has extending therefrom an arm 12 to which is pivotally connected a link 13, said links being pivotally connected to the upper ends of the legs 4. When the chair is in its elevated position, as shown in Figs. 1 and 2, the arms 12 will be directed rearwardly, as shown in Fig. 4. When the chair is lowered into the position shown in Fig. 3, the links 13 will operate to turn the toothed members 9 around into the position shown in Fig. 5. Co-acting with the toothed members is a locking pawl 14 which in the embodiment shown in Figs. 1 to 6 is arranged to co-act with each of the toothed members 9. This pawl is slidably mounted on the bracket or support 10 so that it can be moved into and out of engagement with the toothed member. When the locking pawl is in operative position, as shown in Fig. 4, it will prevent rotation of the toothed members 9 and will thus lock the chair in its adjusted position. When the locking pawl is withdrawn from the toothed members, however, the chair can be raised or lowered freely and it will be locked in any adjusted position by re-engagement of the locking pawl with the toothed members. Any suitable or convenient means for operating the pawl may be used without departing from the invention.

In the embodiment shown in Figs. 1 to 6 I have shown a pawl actuator comprising a member 15 pivoted between two arms 16 extending from the bracket 10, and one end of which engages a notch or recess 17 formed in the locking pawl 14, as best seen in Fig. 6. A rod 18 is pivoted to the lower end of the member 15 and extends through a suitable 110
guide 19 secured to the seat, said rod being provided at its end with a finger piece 20 by which it may be actuated. A spring 21 surrounding the rod and situated between the guide 12 and a pin or collar 22 on the rod tends normally to throw the rod forwardly and thereby move the locking pawl into its operative position. By drawing rearwardly on the rod 18, however, the pawl may be disengaged from the toothed member. The bracket 10 is provided with a stop lug 220 which limits the forward movement of the pawl.

In Fig. 7 I have shown another embodiment of the invention wherein a single toothed member 90 is used which occupies a vertical plane and which is pivoted to a bracket or support 10 that is secured to the under side of the seat, said toothed member being mounted to turn about a horizontal axis 110. This toothed member has rigid therewith an arm 120 to which is pivotally connected two links 113 that are pivotally connected to the upper ends of the legs 4.

A locking pawl 140 cooperates with the toothed member to hold it in any desired position, said pawl being pivoted to the bracket 100 at 141 and having a finger piece 142 extending therefrom by which it may be released from the toothed member. A spring 143 acting on the finger piece 142 serves to keep the pawl normally in locking engagement with the toothed member. The operation of this embodiment is similar to that of the one above described. So long as the pawl is in locking engagement with the toothed member the chair legs will be held in their adjusted position. When it is desired to lower the chair, the pawl is released from the toothed member and the legs can then be spread until the seat is at the desired height. In both embodiments of my invention the chair may be raised without releasing the locking pawl and by merely lifting upwardly on the seat.

In the embodiment shown in Fig. 7 the rear legs are pivoted to the brackets 7 and the front legs to the links 8, while in the embodiment shown in Figs. 1 to 6, the front legs are pivoted to the brackets 7 and the rear legs pivoted to the links 8. It is, however, a matter of choice as to which way this shall be done.

From the above, it will be seen that my arrangement has the advantage that the chair may be adjusted to have a great variety of positions depending on the number of teeth in the toothed members. This is an advantage over the constructions which are now more commonly used wherein the chair seat can be placed in only two or three adjusted positions. Further, the device is very easy to manipulate and comparatively simple to manufacture.

While I have illustrated some embodiments of my invention I do not wish to be limited to the construction shown.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a chair, the combination with a seat, of pairs of legs pivoted together and capable of supporting said seat at different heights, a toothed member pivotally sustained by the seat independently of the legs, an arm rigid with said toothed member, connections between said arm and one pair of legs, and a locking pawl to engage said toothed member.

2. The combination with a seat, of pairs of legs pivoted together and capable of supporting said seat at different heights, a ratchet member pivotally sustained by the seat independently of the legs, connections between said member and the legs of one pair whereby when the legs are spread to lower the seat the toothed member will be turned, and a locking pawl to engage said toothed member.

3. The combination with a seat, of pairs of legs pivoted together and capable of supporting said seat at different heights, a ratchet member pivotally sustained by the seat independently of the legs, connections between said member and the legs of one pair whereby when the legs are spread to lower the seat the toothed member will be turned, a spring-pressed locking pawl to engage said toothed member, and means to retract said pawl.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

THEODORE W. WASHBURN.

Witnesses:

GILMAN WAITE,

ERNST D. HUNTLEY.