May 5, 1931. H. E. McCANDLESS 1,804,057

TRAY FOR NURSERY CHAIRS

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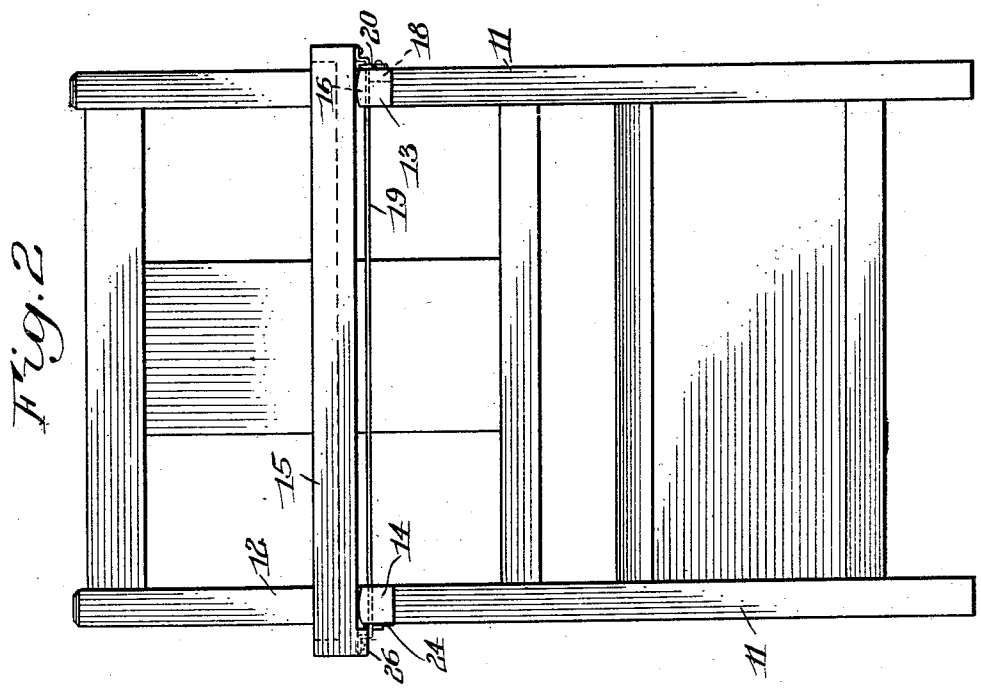


Fig. 2

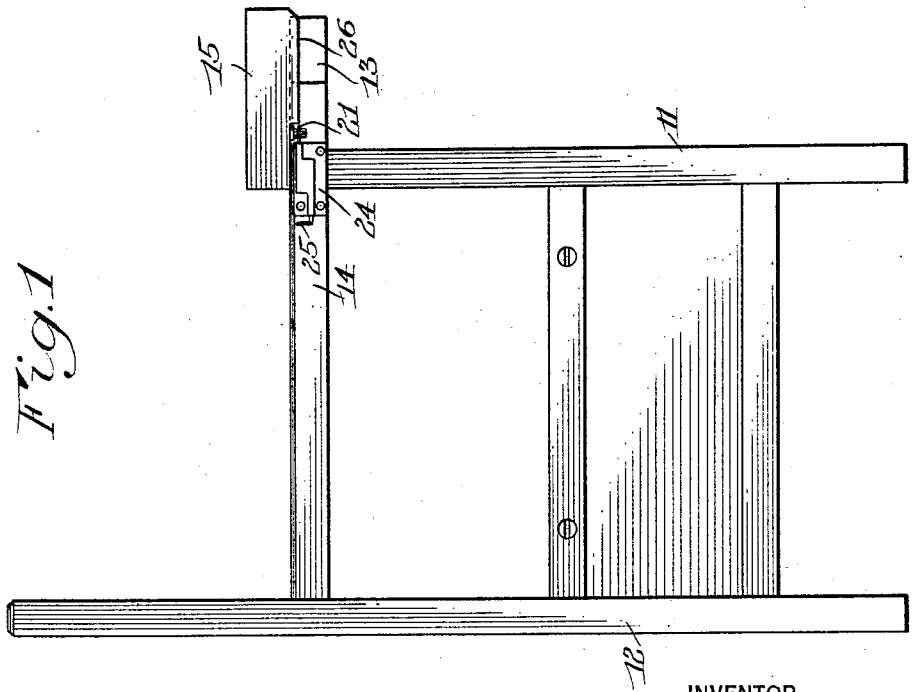


Fig. 1

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Fig. 3

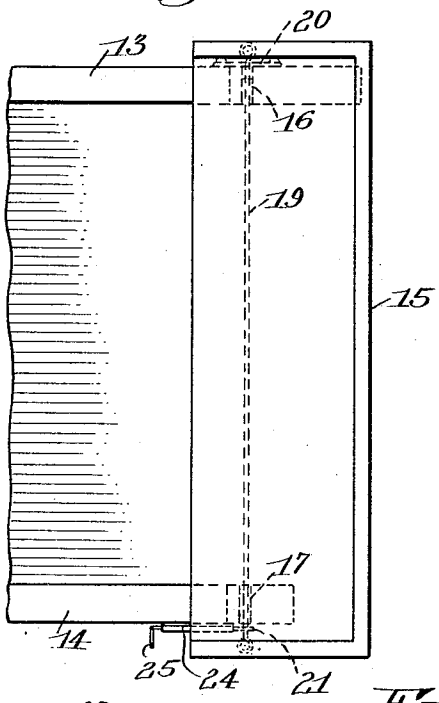


Fig. 4

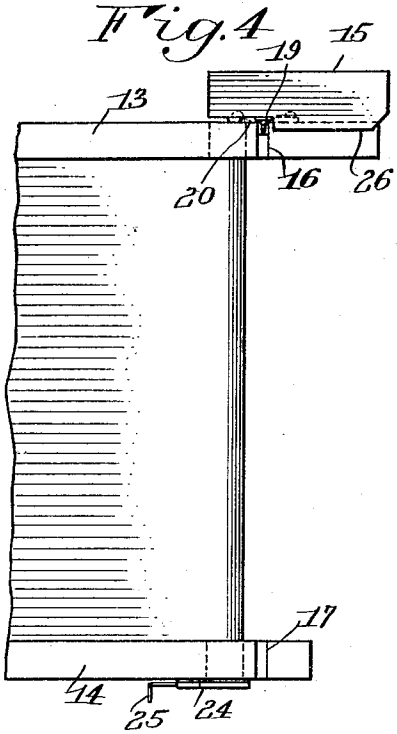


Fig. 5

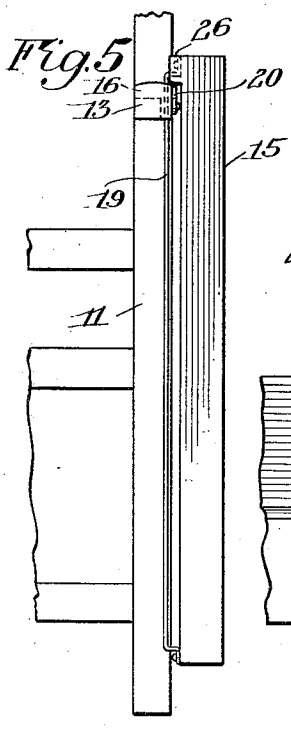


Fig. 6

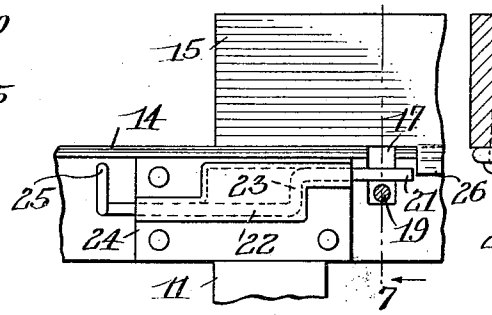


Fig. 7

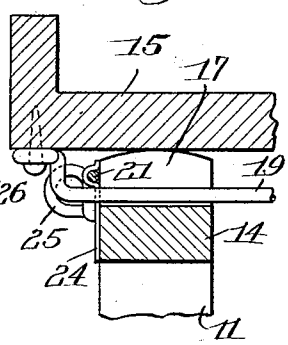
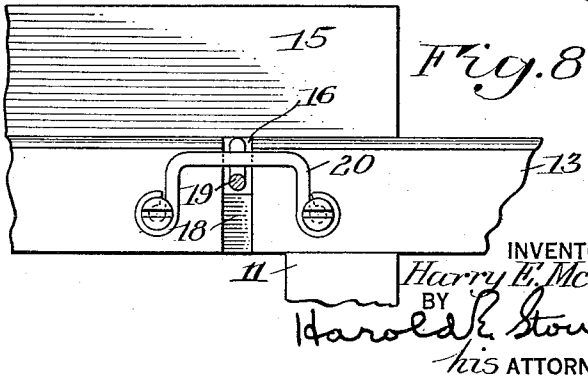


Fig. 8



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UNITED STATES PATENT OFFICE

HARRY E. McCANDLESS, OF ROCHESTER, NEW YORK, ASSIGNOR TO KENNEDY-McCANDLESS CORPORATION, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK

TRAY FOR NURSERY CHAIRS

Application filed October 7, 1927. Serial No. 224,726.

This invention relates to a tray adapted to rest across the arms of a chair or to be moved to an ineffective position at one side of the chair, and has for its principal object to produce an improved tray of simple and economical construction which is more practical and efficient than any heretofore known.

It is another object of the invention to provide a tray which can be moved easily and quickly from its effective to its ineffective position and vice versa.

An additional object of the invention is to provide novel retaining means for holding the tray in its effective position.

A further object is to place a stop member in such a position that it will cooperate with one of the arms of the chair when the tray is in its normal or effective position and with the other arm of the chair when the tray is in its ineffective position.

With these and other ends in view, the invention comprises the structure and combination of parts which will appear more clearly from the following description when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the description.

In the drawings:

Figure 1 is a side elevation of a chair showing one possible embodiment of the invention applied thereto;

Figure 2 is a front elevation of the same showing the tray in effective position;

Figure 3 is a fragmentary plan of the chair with the tray in effective position;

Figure 4 is a view similar to Figure 3 showing the tray in its ineffective position;

Figure 5 is a fragmentary front elevation of the chair with the tray hanging in its ineffective position;

Figure 6 is a detail of the retaining means on one of the arms of the chair;

Figure 7 is a section taken approximately on the line 7—7 of Figure 6, and

Figure 8 is a detail of the retaining means on the other arm of the chair.

This invention is shown in the drawings as applied to an infant's nursery chair, but it is obvious that it is equally applicable to chairs of any other type provided with suitable arms, and it should be understood that the nursery chair is illustrated only by way of example.

In the embodiment shown, there is provided a chair having front legs 11, rear legs 12, and arms 13 and 14. A tray 15, of any suitable construction, is adapted to rest across the tops of these arms when in use, as shown particularly in Figures 2 and 3. When it is desired to move the tray to an ineffective position, it may be swung to a position at the side of the chair, as shown in Figures 4 and 5.

Various mechanisms might be employed for mounting the tray to permit it to be moved from one of these positions to the other. One possible form of such mechanism includes slots 16 and 17 formed in the top surfaces of the arms 13 and 14 respectively. One of the arms, such as 13, has also a slot 18 formed in the outer vertical surface thereof and intersecting the slot 16.

Suitable guiding means may be attached to the tray, for cooperation with these slots. This guiding means may consist, for example, of the rod or stiff wire 19 parallel to and spaced from the bottom of the tray, as shown in Figure 2, the ends of this guiding member being attached to the tray in any suitable manner. When the tray is in its normal position, this guiding member 19 extends into the slots 16 and 17 and thus prevents the tray from moving back and forth in the direction of the arms of the chair.

Suitable retaining means may be employed on each of the arms for holding the guiding member 19 in the slots. The retaining means on the arm 13 may consist of a member 20 in the nature of a piece of wire extending along the corner of the arm 13 adjacent the intersection of the slots 16 and 18 and being suitably secured to the arm. This retaining member 20 is arranged to pass above the guiding member 19 on the tray, as shown especially in Figure 8, and thus it prevents the guiding member from being lifted out of the slots, and connects the tray at all times to the chair.

On the other arm 14 of the chair removable retaining means may be employed for

holding the tray. This retaining means may consist, for example, of a bolt formed from a piece of bent wire, as shown particularly in Figures 6 and 7. The wire of which this bolt is constructed may be bent so as to form two portions 21 and 22 parallel to but offset from each other and connected to each other by a portion 23. This bolt member may slide back and forth in a suitable recess in the plate 24. It will be noted from Figure 6 that the recess comprises a channel for the part 21 of the bolt, a second channel for the part 22 thereof, and a widened portion connecting these two channels and accommodating the part 23 of the bolt. The ends of this widened portion cooperate with the connecting portion 23 of the bolt to limit the motion of the bolt in each direction, as clearly indicated in Figure 6. A handle 25 may be formed at the end of the bolt to permit it to be moved readily.

The bolt is so placed on the arm of the chair that when it is shot forward to its effective position, shown in Figures 6 and 7, it will overlie the guiding member 19 on the tray and will thus prevent this guiding member from being removed from the slot 17. Thus the tray is locked in its effective position, the fixed retaining member 20 on one arm preventing one end of the tray from being elevated and the removable retaining member 21 on the other arm of the chair preventing the other end of the tray from being moved.

At the end of the tray adapted to overlie the arm 14 of the chair, there may be placed a stop member such as 26, shown especially in Figure 2. This stop member is so positioned on the tray that it will lie against the outer side of the arm 14 when the tray is in its normal position, thus preventing movement of the tray in a right-hand direction, when viewed as in Figure 2. The engagement of the retaining member 20 with the bent end of the guiding member 19 will prevent movement of the tray in a left-hand direction. Movement of the tray along the arms, or to the right or left when viewed as in Figures 1 and 3, is prevented by the sides of the slots through which the guiding member 19 extends. The tray is held against upward movement by the fixed retaining member 20 and the movable retaining member 21 which overlie the guiding member 19 on the tray. Thus the tray 15 is held firmly in place on the arms of the chair, and can not become displaced accidentally.

When it is desired to shift the tray to its ineffective position, the movable retaining member 21 is removed by pulling the bolt back until it no longer projects over the guiding member 19. This permits the corresponding end of the tray to be elevated slightly, until the lower edge of the stop member 26 clears the top of the arm 14, and the tray may then be slid rightwardly, as viewed in Figure 2. During this movement, the guiding member 19 slides lengthwise through the slot 16, but is kept from coming out of the slot by the retaining member 20.

The tray may be moved lengthwise in the direction indicated above until the end of the tray which was originally over the arm 14 is over the other arm 13. The other end of the tray may then be swung downward or oscillated about the member 20 as a pivot, until it hangs vertically beside the arm 13, as shown in Figures 4 and 5. When in this position, the guiding member 19 passes through the vertical slot 18 in the arm 13, and is held in that slot by the retaining member 20. The stop member 26 engages the top surface of the arm 13, and supports the weight of the tray, thus preventing the strain on the members 19 and 20 which would occur if these members alone were relied upon to support the tray in its hanging or ineffective position.

To replace the tray in its normal position, it may be lifted upward so that the guiding member 19 slides through the slot 18, and may be turned simultaneously about the member 20 as a pivot, until it lies horizontally across the tops of the arms of the chair. The guiding member 19 is then seated in the slot 17, the bolt on the arm 14 is shot forward, and the tray is again ready for use.

It will now be readily understood from the foregoing description, when read in conjunction with the drawings, that an improved tray has been disclosed, which is simple in construction and operation, and which may be moved in a minimum of time from one position to the other. It consists of but few parts, and is not liable to get out of order.

While one embodiment of the invention has been disclosed, it is to be understood that the inventive idea may be carried out in a number of ways. This application is therefore not to be limited to the precise details shown, but is intended to cover all modifications thereof falling within the spirit of the invention or the scope of the appended claims.

I claim:

1. In a chair having arms, the combination of a tray, alined slots in said arms, a guiding member fixed to the underside of said tray and extending into said slots, means for permanently securing said guiding member to one of said arms, and releasable means for securing it in the slot of the other of said arms.

2. In a chair having arms, the combination of a tray, slots in the upper sides of said arms, a guiding member secured to and extending along the underside of said tray, means for slidably securing said guiding member to one of said arms so that it may

move laterally from a position in said slots with the tray supported on and arranged between the arms to a position suspended from one of said arms at the side of the chair, and releasable means for retaining said guiding member in said slots.

3. The combination with arms of a chair, of a tray adapted to rest thereon or to hang at one side of one of said arms, a slot in the top surface of each of said arms, a slot in the outer side surface of one of said arms intersecting the slot in the top surface thereof, a guiding member parallel to and spaced from said tray and attached to the tray at its ends, said guiding member extending into said top slots when the tray rests on said arms and extending into said side slot when the tray hangs beside one of the arms, means adjacent the intersection of the side slot and top slot for retaining said guiding member therein, said means permitting said guiding member to slide longitudinally transversely to said arms, and releasable means for retaining said guiding member in the slot in the top of the other of said arms.

4. The combination with arms of a chair having transverse slots therein, of a tray adapted to rest on said arms and having a guide rod spaced beneath the bottom thereof and engageable in the slots of the arms when the tray is supported on the arms, means on one of the arms engaging said guide rod for controlling its movement and supporting the tray suspended in vertical position, and means on the other of said arms for retaining the guide rod engaged in said slots.

5. In a chair having arms, the combination of a tray adapted to rest thereon or to be suspended at one side of one of the arms, a guide rod mounted on the tray in spaced relation beneath the bottom thereof, a retaining rod mounted on one of said arms at right angles to said guide rod and embracing the same to permit the tray and guide rod to slide thereon, and a retaining member mounted on the other of said arms and movable to engage or release the guide rod, and means for limiting the movement of said retaining member.

In witness whereof, I have hereunto signed my name.

HARRY E. McCANDLESS.