CLAIMS

1. An infant supporting chair comprising:

a frame;

a seat movably supported on the frame;

a unitary tray; and

a cooperative guidance and latching system configured:

to magnetically pull the unitary tray, as a unit that is a one piece assembly, toward at least one latching position with the unitary tray in range of the at least one latching position relative to the seat,

releasably secure the unit of the one piece assembly unitary tray, the unit releasably secured and magnetically pulled being common, to the seat with the unitary tray engaged to the at least one latching position, and

slidably position the unit of the one piece assembly unitary tray, the unit slidably positioned being the one piece assembly common to the at least one of the unit releasably secured and magnetically pulled, relative to the seat with the unitary tray partially disengaged from the at least one latching position.

2. The infant supporting chair of claim 1, wherein the cooperative guidance and latching system is a two stage latching system.

3. The infant supporting chair of claim 1, wherein the seat is movable in a height direction.

4. The infant supporting chair of claim 1, wherein the seat is moveable in a recline angle direction.

5. The infant supporting chair of claim 1, wherein the cooperative guidance and latching system includes a multiple stage tray latching system that is integrated into the unitary tray.

6. The infant supporting chair of claim 1, wherein the cooperative guidance and latching system is further configured for removal of the unitary tray from the frame in a direction substantially transverse to a sliding direction of the unitary tray when the unitary tray is completely disengaged from the at least one latching position.

7. An infant supporting chair comprising:

a frame;

a seat coupled to the frame;

a unitary tray; and

a multiple stage tray latching system configured to releasably couple the unitary tray to the frame, the multiple tray latching system comprising:

magnetic guide members that are configured to move the unitary tray, as a unit, towards the frame and effect locking engagement of the unitary tray and seat with the multiple stage tray latching system,

latching members that couple the unitary tray, as a unit, to the frame in one of a number of horizontal positions relative to the seat, and

a multiple stage operating mechanism having distinct operational stages effected with a common movement of the multiple stage operating mechanism, the distinct operational stages effect both a partial disengagement of the latching members and complete disengagement of the latching members,

wherein:

the partial disengagement of the latching member effects the horizontal movement of the unitary tray, as a unit, between the number of horizontal positions, and

the complete disengagement of the latching members effects the removal of the unitary tray, as a unit, from the frame in a direction transverse to the horizontal movement of the unitary tray.

8. The infant supporting chair of claim 7, wherein the multi-stage operating mechanism comprises a lever and the distinct operation stages are identified by tactile feedback through movement of the lever.

9. The infant supporting chair of claim 8, wherein the multi stage operating system comprises at least one flexible strap coupling the lever to the latching members and the unitary tray comprises at least one channel in which the at least one flexible strap is disposed, the at least one flexible strap and the at least one channel having detent features that engage one another to identify the distinct operational stages.

10. The infant supporting chair of claim 7, wherein the latching members comprise:

a finger plate slidably coupled to the unitary tray; and

a latch slot plate coupled to the frame;

wherein the multi-stage operating mechanism is coupled to the finger plate to effect staged movement of the finger plate relative to the latch slot plate.

11. The infant supporting chair of claim 7, further comprising a seat recline latching assembly that rotatably couples the seat to the frame.

12. The infant supporting chair of claim 11, wherein the seat recline latching assembly comprises a slide lock that locks the seat in one of a number of rotation positions relative to the frame.

13. The infant supporting chair of claim 7, further comprising a seat height latching assembly configured to slidably couple the seat to the frame.

14. The infant supporting chair of claim 13, wherein the seat height latching assembly comprises a pivot lock that locks the seat in one of a number of height positions relative to the frame.

15. An infant supporting chair comprising:

a frame;

a seat coupled to the frame;

a unitary tray coupled to the seat in one of a number of latching positions; and

a cooperative guidance and multiple stage latching system configured to magnetically guide latching engagement of the unitary tray to the seat in the one of the number of latching positions, wherein the cooperative guidance and multiple stage latching system comprises:

a first stage having partial disengagement of a latch portion of the cooperative guidance and multiple stage latching system between the unitary tray and the seat, which partial disengagement:

effects a change from the one of the number of latching positions to another of the number of latching positions with a sliding movement of the unitary tray relative to the seat, and

substantially prevents removal of the unitary tray from the seat;

a second stage having full disengagement of the latch portion of the cooperative guidance and multiple stage latching system between the unitary tray and the seat, which full disengagement effects removal of the unitary tray from the seat; and

wherein multiple stage operation of the latch portion of the cooperative guidance and multiple stage latching system is effected with but a single actuating lever.

16. The infant supporting chair of claim 15, wherein the first stage and second stage are differentiated from each other by tactile feedback through movement of the single actuating lever.

17. The infant supporting chair of claim 15, wherein the latch portion of the cooperative guidance and multiple stage latching system comprises at least one flexible strap coupling the single actuating lever to latching members, and the unitary tray comprises at least one channel in which the at least one flexible strap is disposed, the at least one flexible strap and the at least one channel having detent features that engage one another to distinctly identify the first stage and the second stage.

18. The infant supporting chair of claim 17, wherein the latching members comprise:

a finger plate slidably coupled to the unitary tray; and

a latch slot plate coupled to the frame.

19. The infant supporting chair of claim 15, further comprising a seat recline latching assembly that rotatably couples the seat to the frame.

20. The infant supporting chair of claim 15, further comprising a seat height latching assembly configured to slidably couple the seat to the frame.