Oct. 21, 1952 N. J. MERCER 2,614,407

CHILD'S FEEDING TRAY

Filed Nov. 12, 1946 2 SHEETS—SHEET 1

FIG. 1.

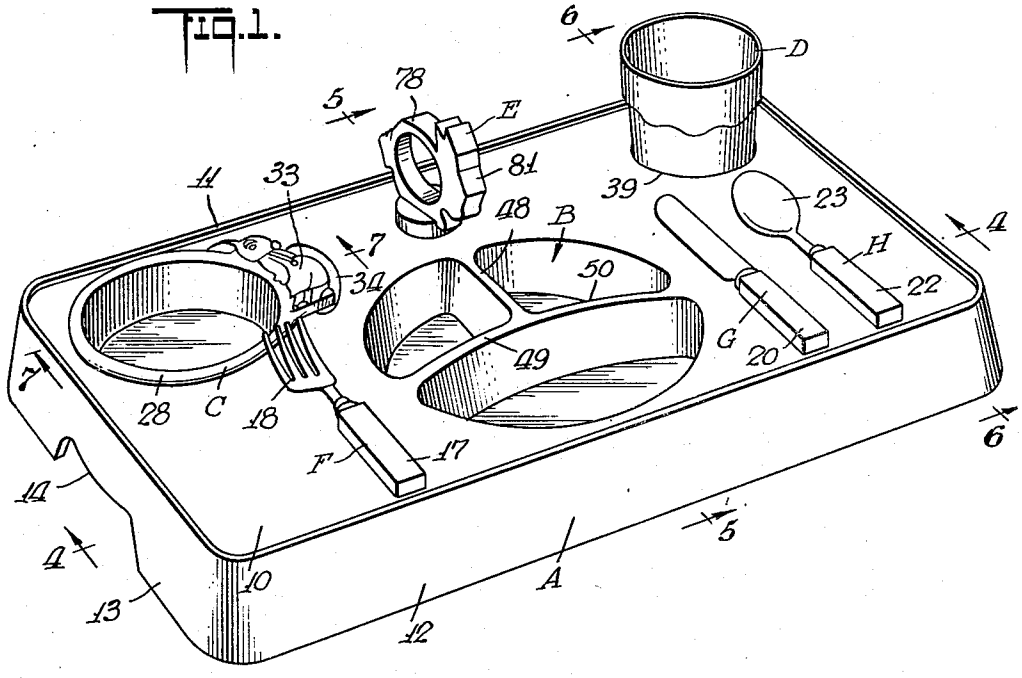
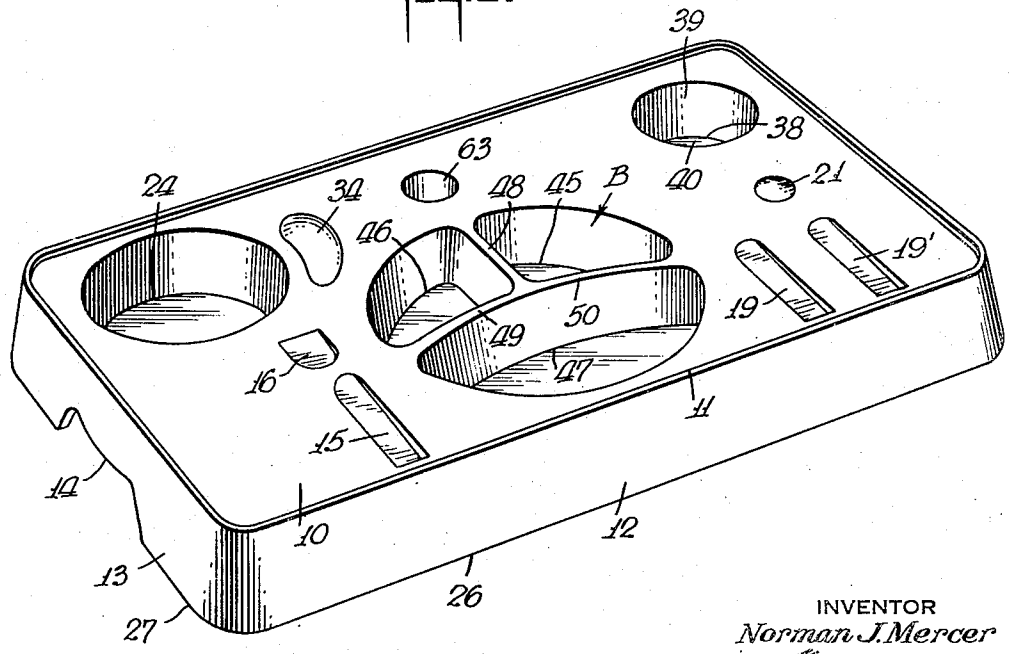


FIG. 2.



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FIG. 3.

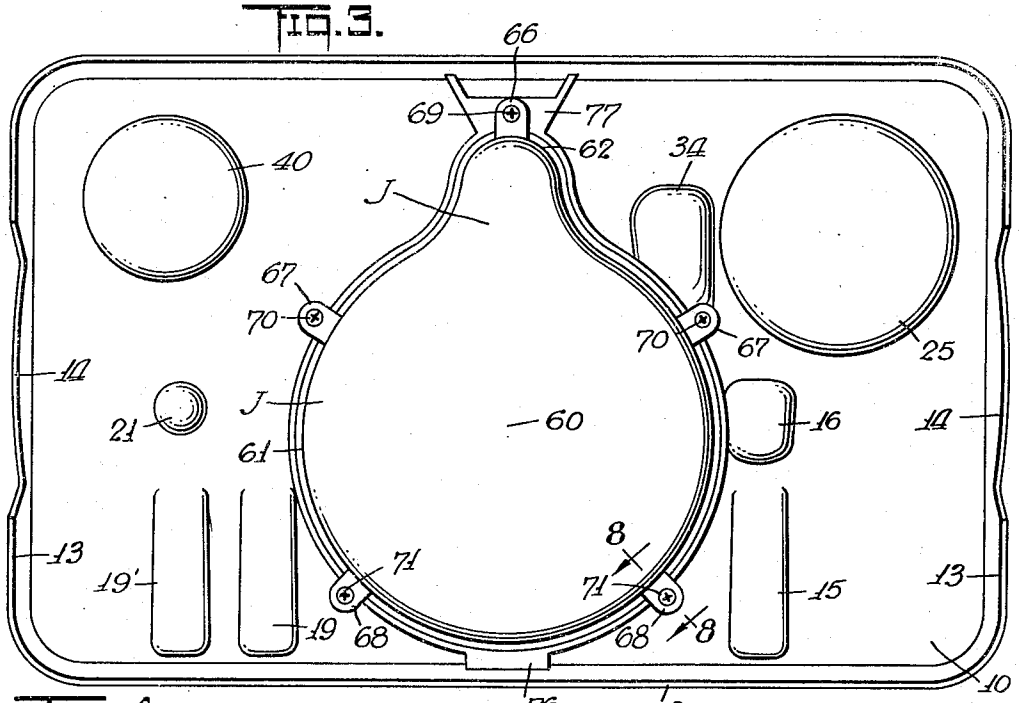


FIG. 4.

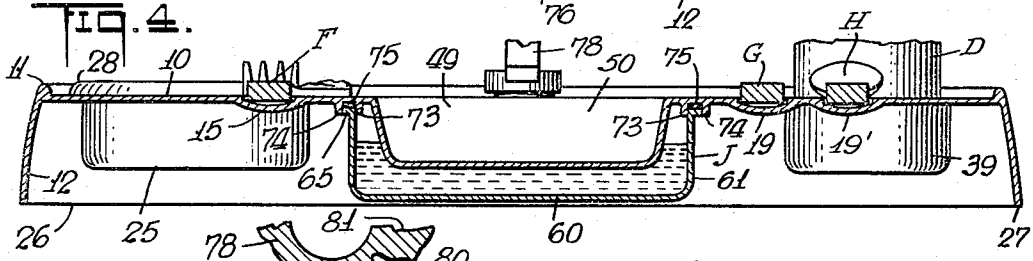


FIG. 5.

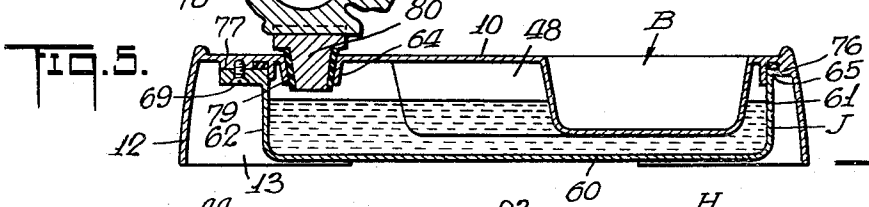


FIG. 6.

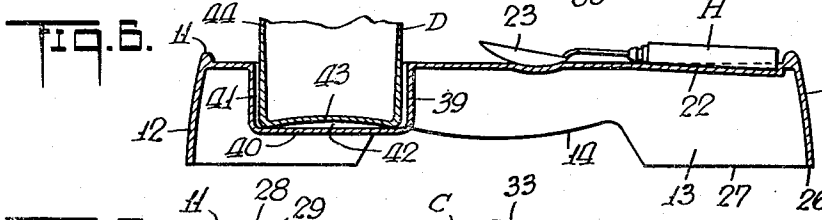


FIG. 8.

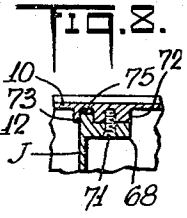
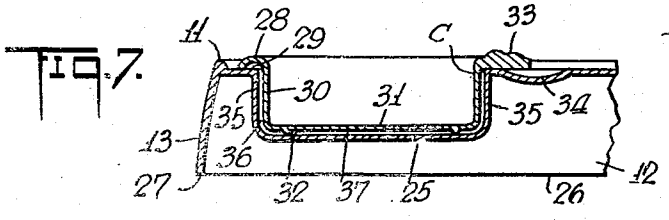


FIG. 7.



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CHILD'S FEEDING TRAY

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5 Claims. (Cl. 65—53)

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The present invention relates a feeding tray and it particularly relates to a children's feeding tray.

Although not limited thereto, the present invention will be particularly described in its application to feeding trays formed of plastic such as rag filled urea or melamine formaldehyde resins, and it is among the primary objects of the present invention to make a novel children's feeding tray which may be formed of plastic materials.

Another object is to provide a psychologically and physiologically planned children's feeding tray to more quickly train infants and to teach small children perfect eating habits at a younger age with saving of months and years of supervised feeding, which tray may be readily used from infancy to 4 years old.

A further object is to make a novel, durable, indestructible, light-weight, readily-manufactured, inexpensive children's feeding tray which is stain-resistant and washable in boiling water and which will supply a complete baby feeding service with its own hot water dish, specifically shaped baby's cup to fit the baby's hands, dessert dish easily removable for chilling in a refrigerator, napkin ring for napkin or bib, and stainless steel knife, fork and spoon balanced and sized for utilization by an infant.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects, it has been found most satisfactory to form a main inverted rectangular dish-shaped base or tray having a top face with depending side walls or legs. The face or main partitioned compartment or recess to receive several foods, such as meat or fish and two vegetables, which recess is provided with a bottom enclosure or jacket to receive hot water to maintain the food in hot condition while the child is being fed.

This jacket is separately formed and connected in water-tight manner to the bottom of the base or tray with the connections not being visible from the top of the tray. The hot water filling opening is conveniently closed at the top of the tray by a stopper, on which is mounted a napkin or bib carrying ring.

The tray is also provided with a large recess to

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receive a dessert dish and a glass so shaped that there will be an insulating air space when the dish and glass are in position.

There are also smaller recesses to receive the handles of a knife, fork and spoon to position such implements or tableware where the infant will grasp the same.

In the drawings which show one embodiment by way of illustration and not by way of limitation,

Fig. 1 is a top perspective view of an infant's feeding tray according to the present invention with the various appurtenances including knife, fork, spoon, drinking glass, dessert dish and napkin ring in position thereon,

Fig. 2 is a top perspective view similar to Fig. 1 with the various appurtenances removed thereon,

Fig. 3 is a bottom plan view of the children's feeding dish upon an enlarged scale as compared to Figs. 1 and 2,

Fig. 4 is a transverse sectional view upon the line 4—4 of Fig. 1 and upon an enlarged scale as compared to Fig. 1 showing the water jacket,

Fig. 5 is a transverse sectional view upon the line 5—5 of Fig. 1 and upon an enlarged scale as compared to Fig. 1, showing the water jacket and stoppered opening therefor,

Fig. 6 is a transverse sectional view upon the line 6—6 of Fig. 1, showing the cup and spoon,

Fig. 7 is a fragmentary sectional view upon the line 7—7 of Fig. 1 showing the dessert dish, and

Fig. 8 is a fragmentary detail sectional view upon the line 8—8 of Fig. 3 showing the water seal construction of the jacket.

Referring to Fig. 1 there is provided a basic dished support member A preferably molded of a resin or other plastic material which is provided with a main compartmented food receptacle B (usually having three compartments, two for vegetables and one for meat) integrally molded herewith.

There is also provided a separate dessert dish C, a drinking glass D, a napkin ring E, a fork F, a knife G and a spoon H, which are positioned in suitably shaped recesses in the top of the tray A.

Beneath the compartmented hot food receptacle B is provided the hot water receiver or jacket J.

The main tray section A is provided with a top or base portion 10. A rim 11 is provided extending entirely around the top 10. The long and short skirt sections 12 and 13 form legs to support the tray. The skirts 12 and 13 have curved faces, which curve outwardly and downwardly as best shown in Figs. 4 to 7.

The short or side members 13 are provided with the recesses 14 which enable the hands to be placed thereunder and enable the tray A to be readily lifted.

As shown in Fig. 2, the table or top 10 of the tray is recessed at 15 and 16 to receive the handle portion 17 and prong portion 18 of the fork F (see Fig. 1). It is also recessed at 19 to receive the handle portion 20 of the knife G (see Fig. 1). It is further recessed at 19' and 21 respectively to receive the handle portion 22 and the bowl portion 23 of the spoon H.

As shown best in Figs. 2, 3 and 6, the recesses 15, 19 and 19' are of increased depth adjacent the rim 11 while they become increasingly shallow toward the center of the tray A so that the implements F, G and H are held firmly in place as the tray is carried at the hand hold portions 14.

The dessert dish C (see Fig. 7) fits in the recess 24 in the tray A. The recess 24 has a bottom 25 above the lower edges 26 and 27 of the side walls 12 and 13.

The dessert dish C (see Figs. 1 and 7) is provided with a curved rim 28 which will form a space 29 around the top of the recess 24 and it has the side walls 30 and the bottom 31 having a spacer ridge 32. At one side it is provided with a hollow relatively flat rabbit-like figure 33 extending over the recess 34 (see Fig. 7). The element 33 forms a handle for the dish C and the recess 34 enables it to be readily grasped by the hand. The side walls 30 are spaced in respect to the side walls 35 of the recess 24 so that there will be a space 36 around the dish C which will act to insulate the dish together with the air space 37 which is formed by the ridge 32 resting upon the bottom 25 of the recess 24.

The recess 38 (see Figs. 2 and 6) receiving the glass D has its side wall 39 and its bottom wall 40. The bottom 43 of the glass D is doomed upwardly to form the air space 42, while the side walls 44 are spaced apart sufficiently so as to leave the air space 41 inside of the side walls 39 of the recess 38. The air gaps 41 and 42 will give an air insulation to the glass D.

The hot dish portion B (see Figs. 1 and 2) is provided with three compartments 48, 49 and 50 which are divided by spaced walls which take the form of an inverted U-structure.

Enclosing the bottom of the compartmented hot food dish B is the hot water container J (see Figs. 3 to 5). The container J has a base 60 and a substantially cylindrical side wall 61 terminating in the offset portion 62. This offset portion 62 extends under the opening or recess 63 from which extends the downward spout or conical wall 64. The side walls 61 as well as the extension wall 62 of the hot liquid tray J are provided with an outward flange 65. The flange 65 carries a series of outward lugs or projections 66, 67 and 68 (see Fig. 3) receiving the screws 69, 70 and 71 which screw into the lugs or bosses 72 (see Fig. 8) formed on the bottom face or under surface of the table or tray top 10.

Extending downwardly from the top or table 10 (as best shown in Fig. 4) are the inside fin 73 and the outside fin 74 between which is received the gasket 75.

The flange 65 will fit between the fins 73 and 74 and compress the gasket 75 thus forming a water tight connection (see Figs. 4, 5 and 8). At the forward and rear sides of the hot water dish J, the outside fin 74 joins the enlargements or bosses 76 and 77 respectively.

The spout 64 or opening 63 is preferably stopped by the conical stopper 80 encircled by the rubber tube 79. The stopper 80 may be molded integrally with a napkin ring E having the circular portion 78 with an animal figure 81 in front to enhance the appearance.

The tray section A as well as the under hot water tray J may be formed of a rag filled molded melamine or urea formaldehyde resin of such construction as to be resistant to hot water and having sufficiently negligible expansion between 10° F. and 220° F.

The elements C, D and E as well as the handles F, G and H may be made of a cellulose filled resin of the same nature. In manufacture the parts A, C, D, E and F may be molded separately and the jacket J then screwed to the bottom of the tray A after the gasket 75 has been placed in position.

In utilization by removing the napkin ring, it is possible to fill the jacket J with hot water or remove water therefrom. The heat from the jacket J will be confined to the vicinity of the multi-compartment recess B since the rag filled resin is not too good a conductor of heat. The air jackets 36—37 and 41—42 will give additional insulation to the dessert in container C and the drink in container D. Even with hot water in the jacket J, the tray A may be readily lifted by grasping the hand holds 14.

The animal figures 33 and 81 as well as the implements F, G and H will attract the child and enable the feeding, training and instructions all to proceed more quickly and with less difficulty.

Although the dimensions may vary widely it has been found satisfactory in one commercial embodiment to give the tray A a height of 1.813", a width of 10.375" and a length of 16.251" and the average thickness of the molded resin is .090". The jacket J may have a diameter of 3.73".

As many changes could be made in the above children's feeding tray and many apparently widely different embodiments of this invention could be made without departing from the scope of the claims, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A children's feeding tray comprising a thin table-like structure having a depending skirt structure to elevate and support the same and having a depressed compartmented portion forming a food receptacle and a hot water container fitted under said depressed portion and enclosing the bottom of the same in water-tight fashion, said table-like structure with said depending structure being integrally molded in one piece of a plastic and said hot water container being also integrally molded in one piece of a plastic, and the upper edges of said hot water container having outward lugs for attachment to the bottom of said table-like structure, and a gasket positioned between said upper edges of said hot water container and the under surface of the table to form a water-tight connection.

2. A children's feeding tray comprising a thin table-like structure having a depending skirt structure to elevate and support the same and having a depressed compartmented portion forming a food receptacle and a hot water container fitted under said depressed portion and enclosing the bottom of the same in water-tight fashion, said depending structure consisting of a continu-

ous skirt surrounding said hot water container, said table-like structure with said depending structure being integrally molded in one piece of a plastic and said hot water container being also integrally molded in one piece of a plastic, and the upper edges of said hot water container having outward lugs for attachment to the bottom of said table-like structure, and a gasket positioned between said upper edges of said hot water container and the under surface of the table to form a water-tight connection.

3. A children's feeding tray comprising a thin table-like structure having a depending skirt structure to elevate and support the same and havng a depressed compartmented portion forming a food receptacle and a hot water container fitted under said depressed portion and enclosing the bottom of the same in water-tight fashion, said container having a single water inlet and outlet through said table-like structure and a napkin ring having a stopper for closing said inlet and outlet, said table-like structure with said depending structure being integrally molded in one piece of a plastic and said hot water container being also integrally molded in one piece of a plastic, and the upper edges of said hot water container having outward lugs for attachment to the bottom of said table-like structure, and a gasket positioned between said upper edges of said hot water container and the under surface of the table to form a water-tight connection.

4. A children's feeding tray comprising a thin table-like structure having a depending skirt structure to elevate and support the same and having a depressed compartmented portion forming a food receptacle and a hot water container fitted under said depressed portion and enclosing the bottom of the same in water-tight fashion, said table-like structure also having elongated recesses of increasing depth toward the edge of the structure for receiving knife, fork and spoon, said table-like structure with said depending structure being integrally molded in one piece of a plastic and said hot water container being also integrally molded in one piece of a plastic, and the upper edges of said hot water container having outward lugs for attachment to the bottom of said table-like structure, and a gasket positioned between said upper edges of said hot water container and the under surface of the table to form a water-tight connection.

5. A children's feeding tray comprising a table of thin rag-filled melamine-formaldehyde resin, a substantially continuous downwardly depending outwardly curved skirt to support said table

in elevated position and molded integrally with said table, said table being provided on its top with spaced depressions to receive a dessert dish, a glass, a knife, a fork and a spoon and hot foods, and having attachment bosses on its under surface and a gasket receiving sealing channel encircling the depression for hot foods and a hot water jacket having attachment lugs and a compression flange fitted into said channel and compressing said gasket in said channel, said table being provided with a filling opening for said jacket.

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