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[33] **Great Britain**
[31] **16,822/68**

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Attorney—Shapiro and Shapiro

[54] **PACKAGING AND SERVING OF FOOD**
10 Claims, 3 Drawing Figs.

[52] U.S. Cl. 297/191,
297/163
[51] Int. Cl. A47c 7/62
[50] Field of Search..... 297/191,
188, 146, 163; 244/118 P, 122; 206/19.5; 16/179;
296/37; 248/240, 240.1, 240.4; 280/150

ABSTRACT: The invention described relates to means whereby prepared meals are made available in hygienic manner in vehicles such as aircraft in which weight, space and personal service are matters of economy. It resides basically in providing storage in the back of a seat accessibly to the next passenger behind, and is therefore concerned with vehicles in which seats are arranged one behind another.

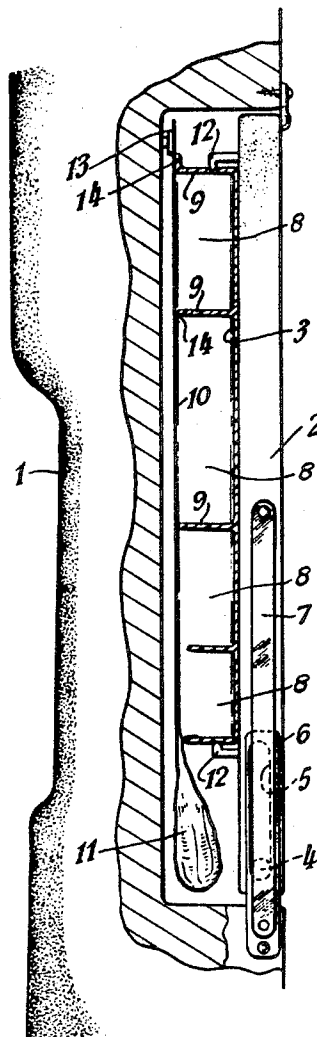
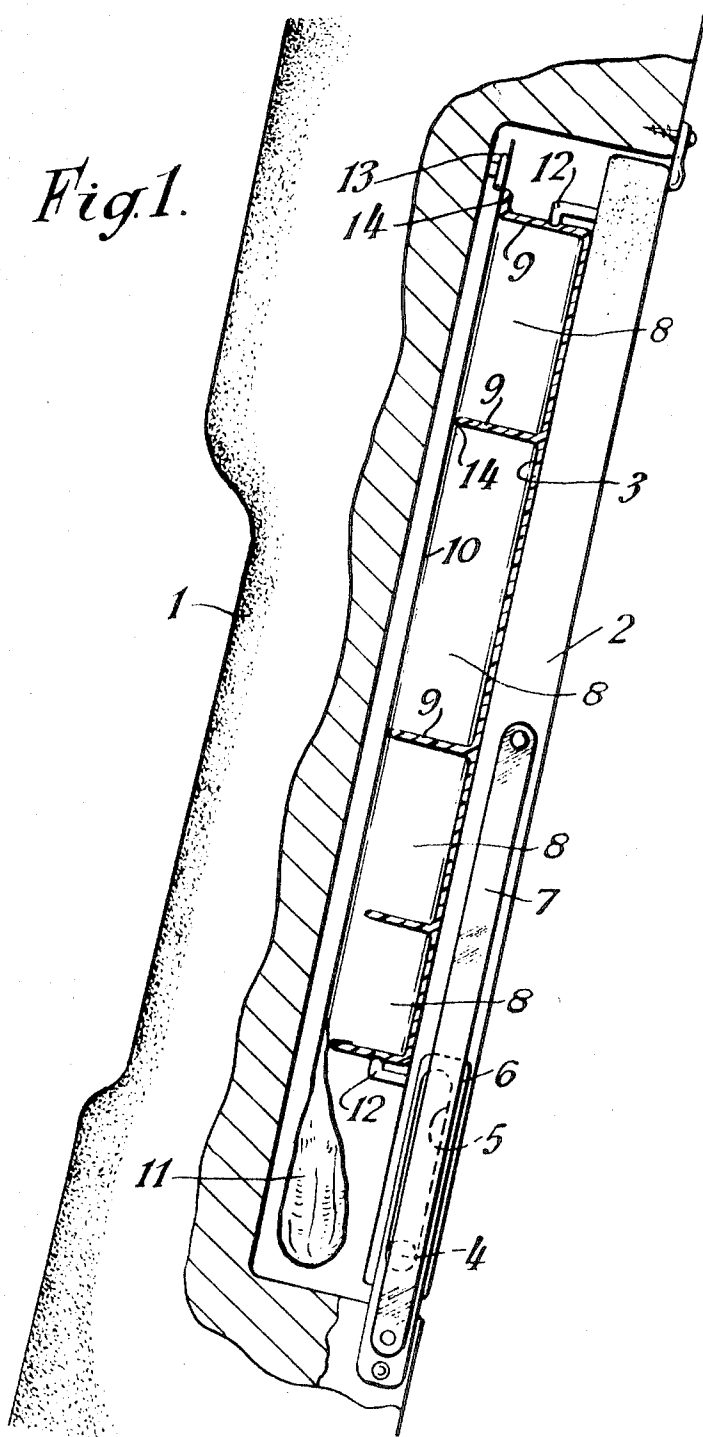
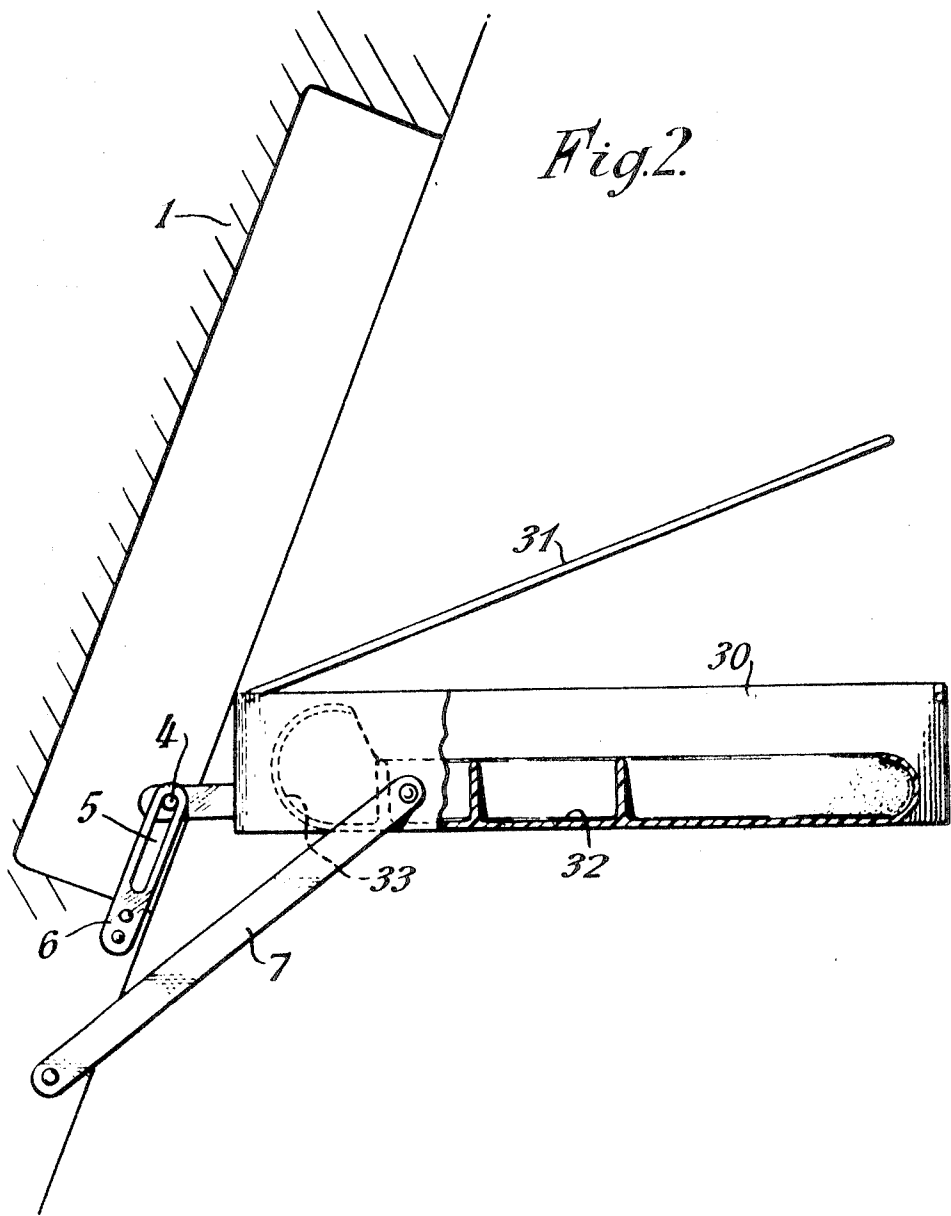
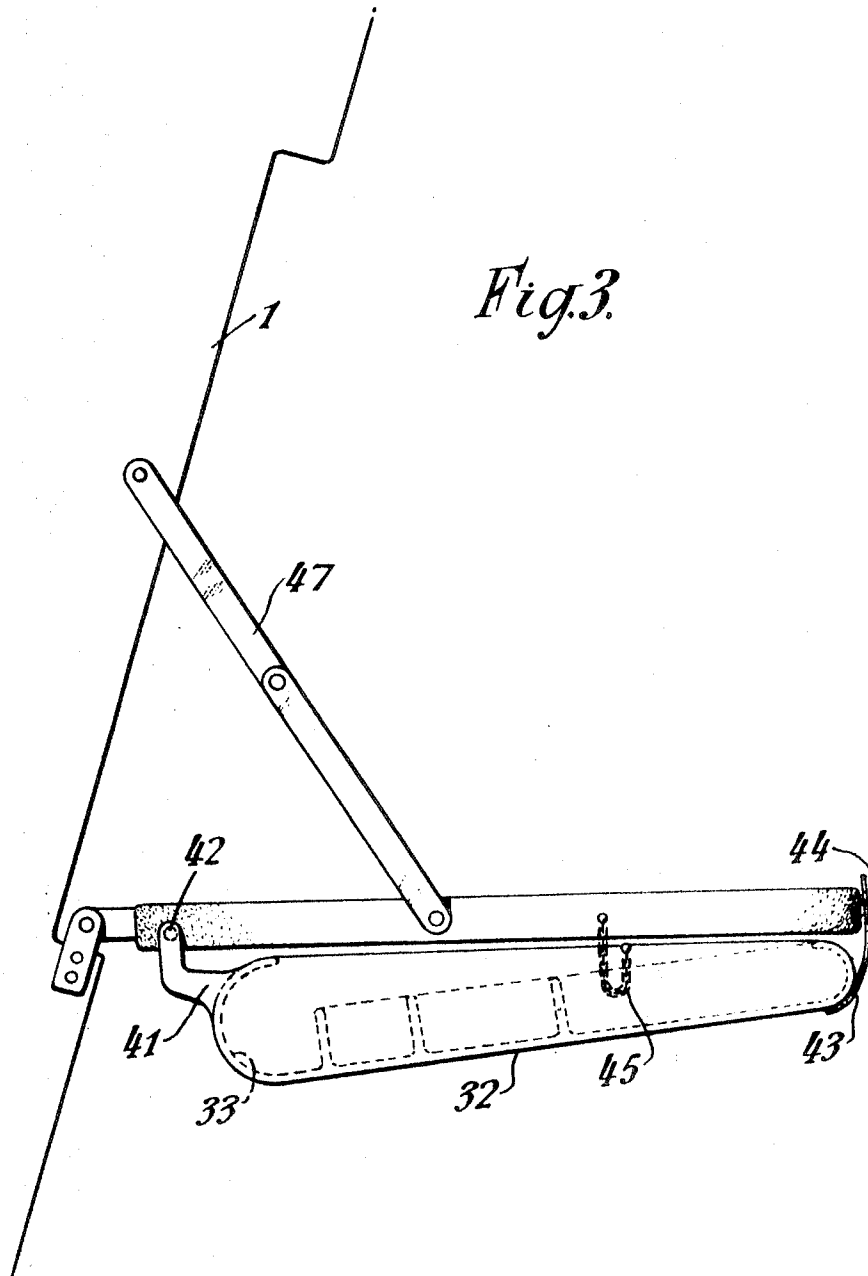


Fig. 1.







PACKAGING AND SERVING OF FOOD

This invention relates to packaging and serving of food and is concerned especially with complete packed meals, or at least comestibles which reasonably accompany each other to constitute a course of a meal or a complete meal, or a choice of comestibles; such will for brevity be referred to as a meal. The invention aims to provide an improved service, in respect of food, applicable in passenger aircraft, coaches, or trains. As is well known, it is customary, particularly in relatively short-haul aircraft, to serve individual prepackaged meals, of which the various components are placed in individual pockets or recesses in a tray; and in order to store the prepared meals and facilitate serving to passengers, these are arranged so that one can be stowed on top of another for stacking. This implies that the top of each packed unit is, virtually, flat or that the trays have to be stacked with some form of spacer between them.

With the increase in number of passengers, the economic requirement to minimize cabin crew, and the short duration of flights, the service of a meal presents serious practical problems. It is primarily the aim of the invention to provide for improved consumer service with less delay and less labor. Having provided a means for achieving that first aim, the invention is further available to be of use in the general field of portable packed meals, such for example as might be sold at railway stations or road-coach stations, or even for picnics. Thus although reference is made primarily to passenger aircraft the invention is not to be regarded as limited thereto, but is applicable to vehicles (including marine vessels or the like) in which passengers are accommodated in seats arranged one behind another.

According to one aspect of the invention a meal is packed in pockets or recesses of a tray, and there is provided a removable lid or cover which is such that the individual pockets—and therefore individual items of the meal—are kept isolated from one another prior to the removal of the lid by the consumer, the lid being so attached to the tray or adapted so to fit the tray that, after being opened, it is able to retain any remaining contents of the tray (either in individual pockets or collectively) so that subsequent taking away of the package ensures that any remains, garbage, or debris left after the meal, being enclosed and contained, is tidily and efficiently disposable. The invention therefore resides, according to a feature, in a meal-containing package consisting of a pocketed tray and a lid which can be opened and closed, which when closed enables the package to be stored or carried upright—that is to say in a vertical plane—whilst retaining any contents.

The invention further comprises as a feature, for the accommodation of a meal package which can be stored upright, a stowage to locate and secure the package in or on the back of an aircraft or like seat so that it can be moved to a horizontal position, uncovered, recovered, and replaced in the storage in such a condition that none of any remainder of the meal escapes the package so as to lodge in or soil the storage space or the seat back.

The invention further resides in a meal package comprising a pocketed tray, a lid adapted to enclose the pockets, and a hingelike attachment between the tray and lid such that it forms a trough or container with closed ends, of sufficient capacity to contain any foodstuff or debris which may fall into it from the tray when the latter is raised from horizontal to vertical in being returned to the stowed condition. This package may somewhat resemble a purse, in that the tray and lid parts are hinged together at parallel spaced margins, and the gap between the margins opens into a pouchlike trough.

The package is, according to the invention, arranged to be stowed in a cavity in a seat back of which the usual drop-down flap table forms the closure. In this case the tray may be arranged so that it can be pulled down with, and so as to lie upon, the table, the lid then being raised and returned into the recess. Such an arrangement will probably involve modification of existing seat equipment, and therefore as an alterna-

tive, the package is attached to the outer (under) side of the flap table and on a pair of lateral arms which are pivoted to the seat back or to the table structure, so that the tray may be lowered by itself to the horizontal position, its lid then being opened upwards to be against the outer surface of the table.

The tray and lid are preferably made of transparent plastics material, so that it can be seen at a glance whether the package is used or unused, thus speeding up replacement. In order to ensure that a stale meal is not served the packages may be marked or be of distinctive colors, to indicate how long a shelf life they have had.

The lid, and the trough, are preferably of thin pliable plastic sheet, and the lid is arranged so that it can be made to stick to the margins of the tray pockets, sealing each pocket; or at least such sealing is applied to pockets of which the food content is to be retained isolated; it is obviously less important in the cases of pockets which receive wrapped food (butter, cheese, sugar, etc.) or simply utensils. The tray may have one or more holes to locate and support a glass, cup, or carton for a separately served drink.

Three examples of the invention are illustrated in the accompanying drawings,

FIG. 1 of which illustrates in perspective part of a seat back, a flap table, and a meal package according to the invention arranged for enclosed stowage.

FIG. 2 shows or illustrates another example of the invention with enclosed stowage and

FIG. 3 is similar to FIG. 2.

In all Figures the references are the same wherever possible.

FIG. 1 shows a seat back 1 recessed so as to store a drop-down table 2 and food containing tray 3. The table 2 pivots about the axis of a pin 4 which can move up and down in a slot 5 cutout of a plate 6 and is supported by a strut 7.

The tray 3 may conveniently be a transparent plastic molding and has pockets or recesses 8 formed by walls 9 across the top of which is stuck the lid 10 as at 14. This lid may also be of transparent plastic susceptible to adhesion to the tray 3. The lid seals the recesses 8 individually, preventing any mixing or spilling of the components of the meals.

At the lower end of the tray 3, the lid 10 is formed into a trough 11, such that after a meal, when the table 2 and tray 3 are returned to the upright storage position, any remains or food debris falling into the tray will be retained thereby.

The tray 3 is held to the table 2 by small pegs 12 which lock into grooves in the tray, the elements being resilient enough to enable this to be done.

A small button 13 is provided in the recess so that when a meal is being consumed, the lid 10 may be hooked up out of the way.

In a further example of the invention as shown in FIG. 2, the food tray 32 is stored inside a box 30 which also serves as a table.

In the lowered position (as shown) the lid 31 can be opened and the tray 32 removed from the box 30 and placed on top of it. After the meal the tray can be returned to the box.

As before, the meal pack comprises a tray, having partitions and a lid sealing them individually. The backwall 33 of the tray has been curved to form a trough to catch the falling remains of a meal when the box containing the tray is returned to its upright storage position. Where applicable the reference numerals are the same as in FIG. 1.

FIG. 3 shows the tray from FIG. 2 in an alternative storage position. In this case it is stored under the table, the tray 32 being hinged to the table by arms 41 and pegs 42 which are resilient enough to be clipped into holes in the table and held flush to the table by tab 43 which is slipped over button 44. When the tray 32 is lowered it is held in a horizontal position by chain 45.

The table support strut 47 is also shown.

I claim:

1. A seat back for a vehicle seat, comprising:

a backwall facing the seat behind said vehicle seat, said backwall being provided with a recess facing and accessible to a passenger in said seat behind said vehicle seat;

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a flap table hingedly supported on said backwall having a first upright position closing said recess and conforming with said backwall and a second position extending horizontally from said backwall; and

a recessed tray mounted on said flap for movement with said flap table to said upright and horizontal positions, said tray having a plurality of pockets for receiving individual items of a meal, a removable lid for enclosing and sealing said pockets to isolate the items in said pockets from each other and to retain said items in said pockets when in said upright position, and means for catching food debris from said tray after said meal is eaten and said tray and table are returned to said upright position.

2. A seat back according to claim 1, wherein said tray is retained on the top side of said table when in said horizontal position and within said recess when in said upright position.

3. A seat back according to claim 1, wherein said table comprises a box and a hinged lid forming the top of the table when in said horizontal position, said box being received within said recess when in said upright position and said tray being retained within said box.

4. A seat back according to claim 1, wherein said tray is retained beneath said table when in said horizontal position.

5. A seat back according to claim 1, wherein said means for catching food debris comprises laterally disposed pliable walls extending in web-like manner between said lid and said tray so as to define a trough at the bottom end of said tray for the reception of said food debris when said tray is in said upright position.

6. A vehicle seat according to claim 1, wherein said means for catching food debris comprises the wall of said tray adjacent the hinge of said table, said wall of said tray being curved to form a trough positioned at the bottom of said tray

when in said upright position.

7. A seat back for a vehicle seat, comprising:

a backwall facing the seat behind said vehicle seat, said backwall being accessible to a passenger in said seat behind said vehicle seat;

a flap table hingedly supported on said backwall having a first upright position conforming with said backwall and a second position extending horizontally from said backwall; and

a recessed tray mounted on said flap table for movement with said flap table to said upright and horizontal positions, said tray having a closed unbroken bottom wall and a plurality of pockets on the top side of said bottom wall for receiving individual items of a meal, and a removable lid for enclosing and sealing said pockets to isolate the items in said pockets from each other and to retain said items in said pockets when in said upright position.

8. A vehicle seat according to claim 7, wherein said tray further comprises means for catching food debris from said tray after said meal is eaten and said tray and table are returned to said upright position.

9. A seat back according to claim 8, wherein said means for catching food debris comprises laterally disposed pliable walls extending in weblike manner between said lid and said tray so as to define a trough at the bottom end of said tray for the reception of said food debris when said tray is in said upright position.

10. A vehicle seat according to claim 8, wherein said means for catching food debris comprises the wall of said tray adjacent the hinge of said table, said wall of said tray being curved to form a trough positioned at the bottom of said tray when in said upright position.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,596,987 Dated August 3, 1971

Inventor(s) Anthony A.R. Wilson

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Change the name of the assignee as printed on the patent from
"Autair International Airways Limited" to -- Court Line Aviation
Limited --.

Signed and sealed this 22nd day of February 1972.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents