United States Patent [19]

Johnston

[11] **3,774,723**

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[54] **FOOD AND FUEL DISPENSING PROCESSES AND STRUCTURES THEREFOR**

[76] Inventor: **James A. Johnston,** 3318 Otsego, Amarillo, Tex.

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[52] **U.S. Cl.** ..... **186/1 C,** 98/115 K, 137/234.6

[51] **Int. Cl.** **E04h 3/04**

[58] **Field of Search** ..... 186/1 R, 1 B, 1 C; 98/115 K, 29, 33; 52/172, 173, 174; 137/234.6

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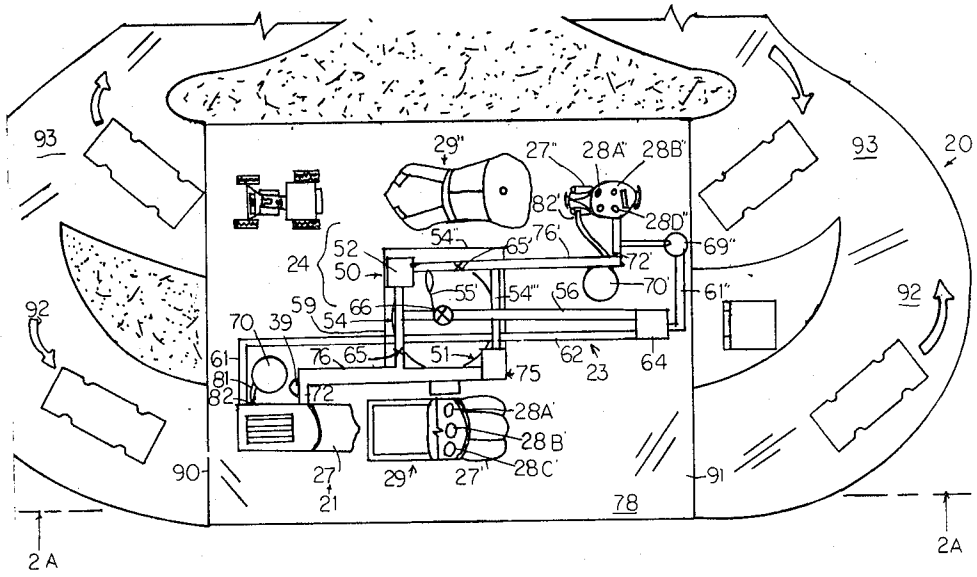
[57] **ABSTRACT**

A cooperating set of systems and structures, i.e., a fuel supplying and dispensing system and structure, a food preparation and dispensing system and structure, and an air and gas removal system and structure combined with an air and aroma dispensing system, are arranged so that time required to add gasoline to each of several automobiles and perform related sales and service is used, in combination with positive olfactory and positive visual stimuli and blocking of negative olfactory stimuli, to increase the appetite of the passengers of such automobile for the food products sold at the same installation.

24 Claims, 8 Drawing Figures



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SHEET 1 OF 2

FIG. 1

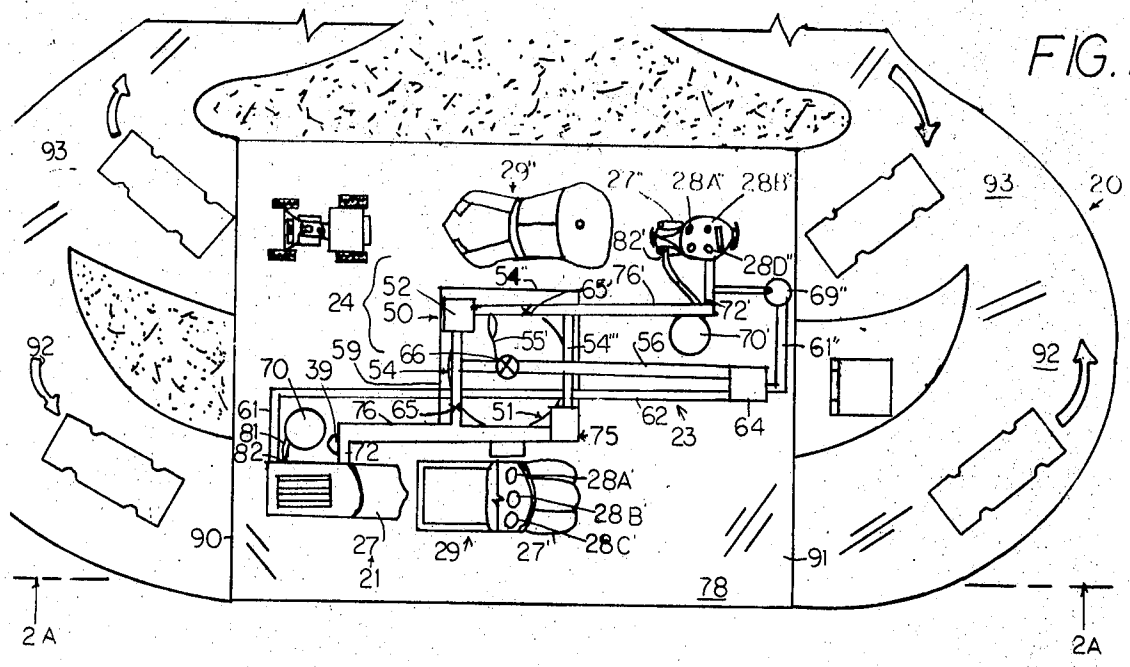

FIG. 2

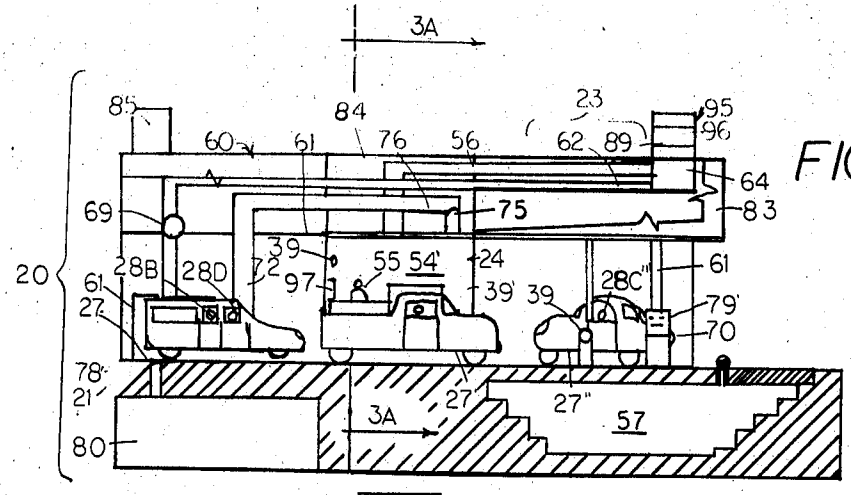

FIG. 3

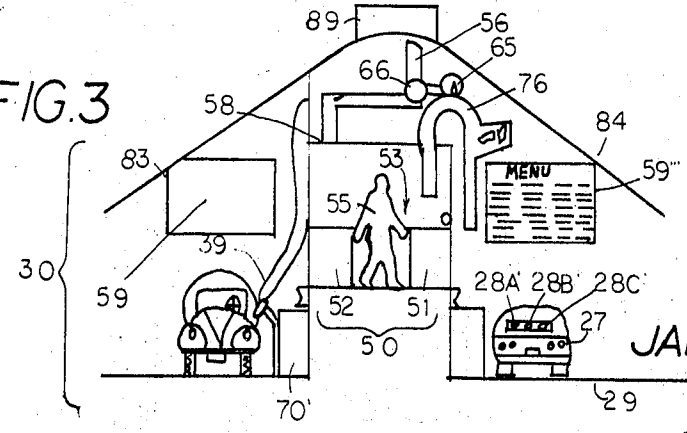

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FIG. 4

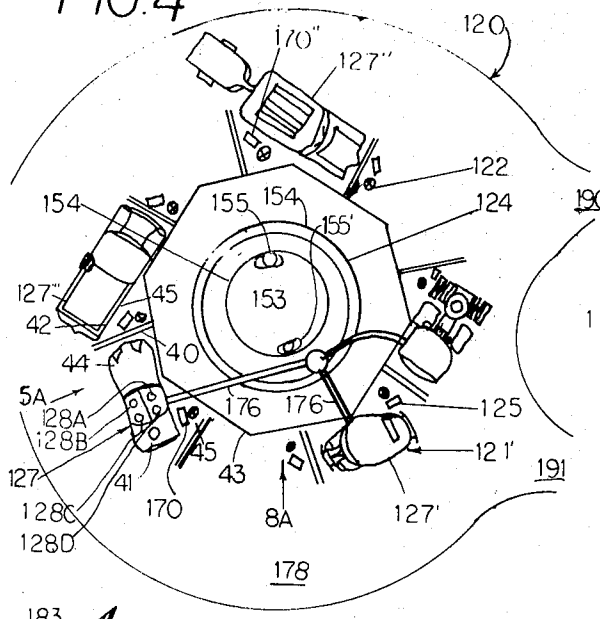
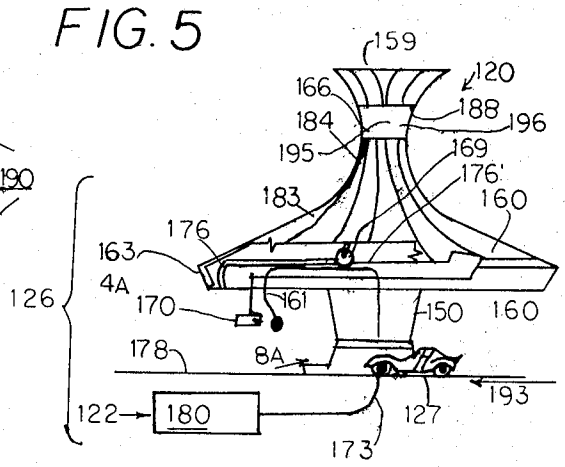


FIG. 5



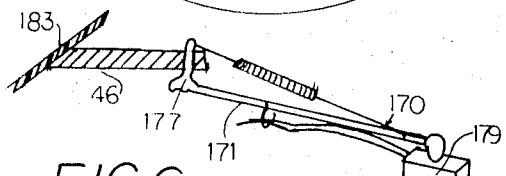


FIG. 6

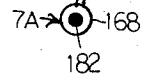


FIG. 8

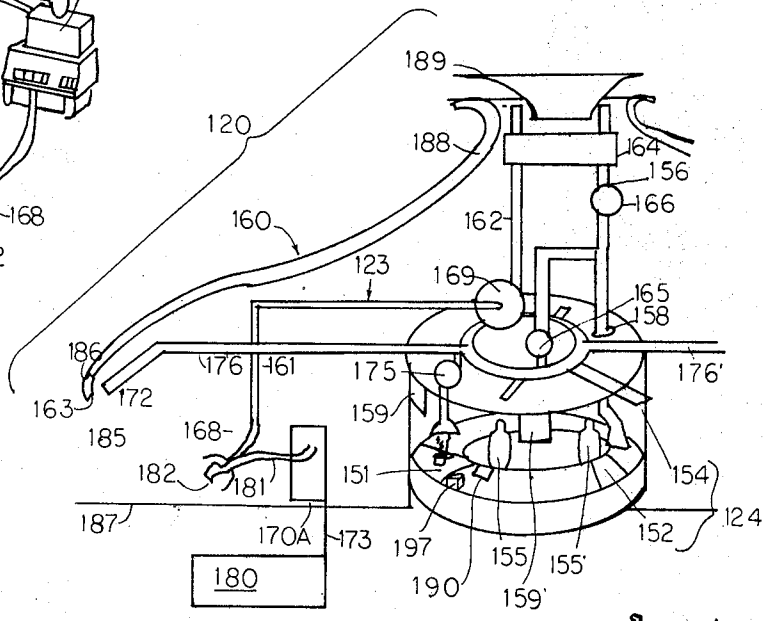
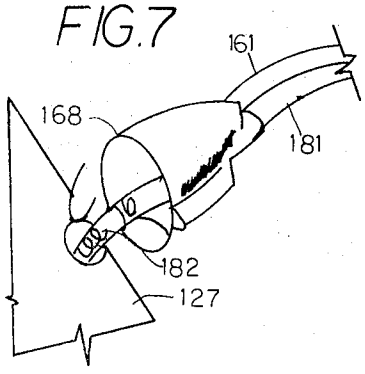


FIG. 7



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FOOD AND FUEL DISPENSING PROCESSES AND STRUCTURES THEREFOR

CROSS REFERENCE TO RELATED APPLICATION

The application includes matter set out in my disclosure document No. 005,740 filed June 25, 1971 entitled "Drive-In Gasoline Restaurant Combination."

BACKGROUND OF THE INVENTION

1. The field of art to which this invention pertains is static structures with combined functions, traffic guiding features, flues with gas directing features, and includes enclosures for fluid handling, and ventilation, with protective air currents.

2. The prior art

Motor car gasoline is a mixture containing many different hydrocarbons, boiling mainly between 32° C. and 210° C., with adjustment for the climate and season. More volatile components as needed for quick starting are added when the weather is cold and additives are also used, e.g., as anti-oxidants to inhibit gum formation; common anti-oxidants are aromatic amines, phenols and aminophenols.

During the passage of commercial gasoline from a standard metering pump therefor into the gasoline tank of an automobile indication of vapors from the gasoline are observable as visible undulations in the air or atmosphere in the immediate region of the gas tank opening; i.e., for 2 to 10 inches from the gasoline pump discharge nozzle. Such vapors are also readily sensible by human smell at 6 to 10 feet from the pump nozzle outlet when no breeze is blowing and further when the wind blows in the direction of the person attempting to detect such substances by their smell. The human sense of smell is quite sensitive and able to detect only a few parts per million. The smell seriously affects the flavor of food and appetite hence the immediate location of a gasoline pump has been undesirable as a place to eat or sell food.

By this invention however, the very volatility that usually makes the zone of dispensing of gasoline unattractive for eating food because of the effect of gasoline odors on taste is used for the removal of such deappetizing odors while, concurrently, the period of time required of the passengers to wait within an automobile while their automobile is being refueled is used to promote the desire for food and the sale of foods to such passengers by the operation of an air moving system that then subjects those passengers to positive olfactory stimuli. Further, the food customers at the installation themselves become psychological stimuli to passengers in automobiles subsequently serviced and treated at such installation.

SUMMARY OF THE INVENTION

Automobile passengers, while confined in their automobile while the automobile is in a fixed location while it is being refueled and inspected for servicing needs in a first zone of an installation are subjected to viewing passengers in other automobiles in a second zone served with food while the passengers in the automobile in the first zone are also subjected to appetizing food odors while gasoline odors are prevented from reaching such passengers in such first zone. Other conventional stimuli for sale of food are also concurrently used in the zone of the first automobile; e.g., music relating to food and pictures of and literature relating to the foodstuffs. Thereby the time required for refueling of a first automobile in a first zone is utilized to provoke and promote the subsequent sale of foodstuffs to the passengers in such first automobile. The view of such subsequent sale of foodstuffs to such passengers in the first automobile is used to provoke and promote sale of foodstuufs to the passengers of another automobile, in combination with appetizing odors to which the passengers in such another automobile are subjected.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of one embodiment, **20**, of an installation according to this invention along section 1A—1A of FIG. 2.

FIG. 2 is a vertical longitudinal sectional view of embodiment **20** along section 2A—2A of FIG. 1.

FIG. 3 is a vertical transverse view of another embodiment **30** along plane 3A—3A of FIG. 2.

FIG. 4 is a plan view of another embodiment **120** of installation according to this invention along section 4A of FIG. 5.

FIG. 5 is a side view of embodiment **120** taken along direction of the arrow 5A of FIG. 4.

FIG. 6 is a detail view of a gasoline metering subassembly used in embodiment **120**.

FIG. 7 is an enlarged view of zone 7A of FIG. 6 during the application thereof to the gas tank of a vehicle within the installation **120**.

FIG. 8 is a diagrammatic broken away perspective view of elements in zone 8A of FIGS 4 and 5.

DESCRIPTION OF THE PREFERRED EMBODIMENTS:

One embodiment of installation, **20**, according to this invention is shown in FIGS. 1 and 2. The installation **20** comprises a fuel supply system **22**, an odor removal system **23**, a food dispensing system **24**, an aroma providing system **25**, and an enclosure and automobile location structure **26** in operative combination. The customer's cars, as **27**, **27'** and **27''** pass, with passengers therein, such as passengers **28A** and **28B** in car **27**, passengers **28A'** and **28B'** and **28C'** in car **27'** and passengers **28A''**, **28B''** and **28C''** and **28D** in car **27''** through such installation in straight line paths via a plurality of stopping positions in such installation. The first stopping position is a fuel filling stop **21** next to a fuel pump: the second stopping position **29** is adjacent the kitchen **50**.

The fuel supply system **22**, the odor removal system **23**, the food dispensing system **24**, and the aroma providing system **25** utilize a common rigid longitudinally elongated roof structure **60** which provides protection against the weather to the automobiles as **27**, **27'** and **27''** and the passengers therein carried as well as provides the means whereby the gasoline fumes are removed from possible access to the vicinity of the passengers and means whereby aromas and other stimuli are made sensible to the passengers in the automobiles during the dispensing of fuel through the fuel system **22** to the vehicles. The roof **60** has such sloped sides, **83** and **84** and a crest **88**, each side sloped upwardly and centrally to a crest **88**. Each side is partially supported by pillars, as **87** and **86** so that the bottom of the roof is above the top of the cars passing parallel to the length of such roof as are well known in the art and conventional, such as in U. S. Patents **3,364,940** and

2,021,544. Roof 60 is also partially supported by walls of room 50.

The fuel supply and dispensing assembly 22 comprises, in operative combination, a plurality of gasoline pumps, as 70 and 70', a rigid floor or support 78 for the automobile vehicles, as 27, 27' and 27''. Such floor surface is elongated and rectangular and formed of concrete and the gas tanks (below discussed) are located below such floor surface. The floor 78 is flat and locates each car, as 27, when it first arrives at the installation in a stopping position 21 in the vicinity of a fixed standard gasoline metering pump 70. The elongated rectangular floor also supports the similarly elongated and rectangular roof 60. The first stopping position 21 location of a vehicle, as 27, at a first stopping position on a predetermined zone of the floor 78 also provides a meaningful operative relationship for location of the aroma duct outlet nozzle 72 in embodiment 20 by locating the position of the passengers in a first automobile, as 27, in such first stopping position or zone where they may also view the menu 59 on the kitchen wall, the kitchen 50 and passengers in other vehicles, as 27', receiving food and passengers in other vehicles eating food as shown for the vehicle 27''. Each of the standard gasoline pumps, as 70 and 70'as are well known in the art and conventional, as in U. S. Pat. Nos. 1,817,409 and 2,182,126, is operatively connected to a gasoline tank or source therefor, as 80. Each pump as 70 and 70' has a standard flexible fuel outlet hose 81 and 81' with a fuel nozzle 82 and 82', respectively. Each hose, as 81, is operatively connected with a gasoline metering device, as 79.

The odor removal system 23 comprises fans, as 69 and 69', and collector ducts 61 and 61' located in the roof 60 as are well known in the art and conventional, as shown in U.S. Pat. No. 1,980,224. The fans and conduits or ducts, as 61, in the roof serve to draw and convey all the fumes in the vicinity of the rear of each automobile, as 27, at a given stopping position 21 in the installation 20 away from such car 27. Each set of fan and conduit, as 69 and 61 especially serve to draw the fumes of gasoline away from the rear of each car, as 27, and accordingly remove the gasoline from detection or sensing by the passengers located forward of the gasoline tank in each such automobile, as 27.

Concurrently, other ducts in the roof 60 inundate the front end of each car, as 27 with air laden with appetizing odors. The length of the roof 60 serves to separate inlet 85 for the air to be treated by admixing with appetizing odors and subsequently passed to the passengers and the discharge 89 of the gases theretofore used to mix with and transport the undesirable gasoline odors. More particularly, a fan, as 69, is installed near each gasoline pump, as 70, in such a location relative to the gasoline pump and the location of the nozzle of such pump, as 82, that is about two feet away from the gasoline pump and directly above where the nozzle would normally be placed into the gas tank of the car. Thereby when gasoline is pumped into the automobile 27 the air flow generated by the fan causes the gasoline odors to be moved away from the automobile gas tank and, concurrently, away from the automobile occupants or passengers and to a collecting duct 61 as is well known in the art and conventional, as in U.S. Pat. No. 2,565,933 that conducts such gaseous mixture to and along the length of the roof 60 to the discharge or exhaust stack 89.

The height of the elongated rectangular building roof structure 60 provides that the gasoline vapors be dispersed at an elevated stack 89 near the exit end of the roof 60. Such gases may be passed through a flame 64 to destroy odors and readily burnable gases prior to passing out the exhaust stack orifice. The exhaust stack 89 is located as great a distance as possible, i.e., at the opposite end of the roof 60 from the location of the air intake 85 of air to the kitchen 50. The air intake 85 is located accordingly at the end of the roof 60, near the entrance of the installation 20. Thereby the air is brought into the installation area with a cleaner smell by avoiding mixing with the less fresh or treated air and the only odors that the passenger, as 28, in each automobile, as 27, receive when under the roof 60 is fresh air laden with the odors of appetizing foods. The substantial length (at least three car lengths) of rectangular roof 60 thus helps support and separate the air intake 85 for the gases passed to the automobile passengers and the location of the discharge 89 of the output gases and vapors and odors.

In the absence of such a system as herein provided, for a portion of time that is statistically fairly stable and also substantial air would blow from the gasoline hose nozzle, as 82, toward the passengers in each car, as 27, or the food supply system 24 and adversely effect the passengers' appetite even if not conscientously sensible by them.

The food dispensing system 24 comprises a rectangular kitchen room 50 as is well known in the art and conventional, as in U.S. Pat. No. 2,815,539 with transparent front, right side, left side and rear windows 54, 54', 54'' and 54''', respectively and a telephone system as is well known in the art and conventional, a shown in U.S. Pat. No. 3,354,707 and 1962 Allied Catalog A210A, p. 309 - Allied Radio Co., Chicago, Ill. between the passenger in each automobile, as 27, and the room 50, and transport means for delivery of the ordered food to the passengers.

Each of the automobiles, as 27 at installation 20 moves near to, but past a kitchen window, as 54', during the total path 92 of such automobile from the entrance 90 of the installation via first stopping position 21 to the second stopping position 29 to the installation exit 91. At the second stopping position the automobile is adjacent the window 54', which window is readily opened. The bottom ledge of the window serves as a shelf for passing food ordered by the passengers of vehicle 27 to those passengers when at position 29.

The food dispensing system 24 comprises a rectangular kitchen room 50 wherein is located a stove 52 for cooking food and an aroma developing stove 51.

The room 50 is fixedly located on the floor 78 in the center thereof as measured from the entrance portion 90 at one end of floor 78 to the exit portion thereof 91 at the other end of the floor 78. The side kitchen windows 54' and 54'' are adjacent but central of the right and left path, as 92 and 93, respectively of each automobile, as 27 and 27'', respectively from its first stopping position, as 21 and 21'', respectively to the second stopping position 29 for car 27 and position 29'' for car 27''. The kitchen is in view of the passengers of each car while the car is being fueled and includes a work area 53.

Kitchen operators, 55 and 55' move about in the kitchen between one side window 54' and another, as 54'' and prepare food on stoves within view of the au-

tomobiles at their first stopping positions and manipulate dampers **65, 65'** as are well known in the art and conventional, as shown in Engineers' Illustrated Thesaurus, 1952, Chemical Publishing Co., Inc., New York, N.Y., p. 551, and U.S. Pat. No. 3,229,611 and **66.**

The stove **52** is used to cook food; the odors generated by such operation are passed into a kitchen odor outlet orifice **58** and usually passed by a kitchen outlet duct **56** to a deodorizing flame **64** and exhaust stack **89.** Dampers **65** and **65'** pass the odors passed to orifice **58** to aroma dispensing ducts **76** and **76'** if material being cooked has a particularly appetizing odor as steak and such odor is compatible or synergistic with the odors theretofore passed into such ducts; and damper **66** in duct **56** is closed. Kitchen **50** is also provided with a separate aroma developing stove **51.** Stove **51** is a conventional stove with a separate aroma duct system therefor. The aroma duct system comprises a plurality of ducts as **76, 76'** each extending from the kitchen room **50** to the stopping positions, as **21** and **21'** for each of the vehicles, as **27** and **27',** and each supported in the roof **60.**

The dispensing system comprises a stove **51,** aroma fans **75, 75'** above the stove as are well known in the art and conventional, as in U.S. Pat. Nos. 3,131,687 and 3,396,651 and aroma ducts as **76** and **76'** connected to the fan outlet and aroma duct nozzles as **72** and **72'** at the ends of the ducts as outlets therefor.

The aroma developing stove **51** heats material that generates appetizing aromas that pass by an aroma fan, as **75,** to a duct as **76** to the immediate vicinity of the passengers, as **28** in each of the cars, as **27,** at each stopping position **21** whereat fuel is also placed in the automobile tank. Each aroma duct has a discharge outlet, as **72,** located near to and directed at the window of the automobile driver's seat when the automobile is located at a fueling and stopping position, as **21,** under the roof **60.**

The outlet **72** is supported adjustably yet firmly from roof **60** for this purpose by a hingedly jointed assembly of rigid arms similar to the adjustable support of a dentist's drill, with readily locked joints.

Accordingly, the structure of installation **20** provides that while each car, as **27** is supplied with fuel at a stopping station **21** the ducts, as **76** discharge appetizing odor laden vapors in a zone between the outer edge of the roof **60** and the room **50** for food, as in FIGS. **1** and **2;** thereby passengers of a given car, as **27** on the floor **78** will be supplied with appetizing aromas.

The protective shell or roof **60** not only supports ducts as **76** for selectively distributing appetizing odors to the zones wherein are located the passengers in the vehicles which are being refueled but also such roof is so designed to provide support for a removal and/or dispersion ducts for waste gases provided by the vehicle fueling operation and system. Further still, because the roof has an upwardly and centrally located apex accumulation of undesirable odors is avoided because of the ready elimination thereof through the exhaust **89** at the apex of the roof if collector ducts as **61** and **61'** are not used.

Illustrated menus, as **59, 59', 59''** and **59'''** are also located on the walls of the kitchen room wall below and above the windows **54, 54', 54''** and **54'''** to provide for presentation to the automobile passengers, as **28** and **28A** in each car at position **21.** Storage space **57** is provided near room **50** under floor **78.** While volatile flavors are complex chemical mixtures which are however resolved by chromatography, empirically such odors are readily producted by cooking standard foodstuff; e.g., by brewing ground coffee beans in water, or frying or sauteing onion slices in a deep fat fryer, pan or grill, or heating extract of artificial vanilla (or vanillin) or ground vanilla beans on a hot grill without carmelizing or burning, or baking bread and passing the appetizing odors evolved thereby through the nonporous ducts, **76,** which have walls that are readily washed and cleaned with water; e.g., smooth walled galvanized tubing, or plastic tubing having a high (over 250° F.) melting point, or copper or aluminum tubing. The conduits, **76,** are heated by pipe heating tape (tape containing electrical heating elements) to prevent condensation of such vapors on the walls of the ducts during cold weather.

By the arrangement of installation **20** the very volatility that usually makes the zone of dispensing of gasoline unattractive for eating food because of the effect of gasoline odors on taste is used for the removal of such odors in the stream from fan **69** to duct **61** while, concurrently, the period of time (3–10 minutes) required of the passengers constrained within an automobile **27** to wait while their automobile is being refueled is used to promote the sale of foods to such passengers (by the air moving system that subjects the passengers to positive olfactory stimuli of appetizing odors).

The aroma supplying system also, by passing into the vicinity of the passengers of each of the automobiles, as **27** at the installation **20** also serves to block passage to the passengers of gasoline odors that might limit the appetite provocation of the aroma laden air during the time of such automobile servicing and prior to the time of food delivery to the passengers of such car.

The automobile passengers, **28** and **28A,** while confined in their automobile, as **27,** while it is constrained to remain in the fixed location **21** while it is being refueled and inspected for servicing needs in a first zone of an installation **20** are also subjected to viewing passengers in other automobiles in a second zone **29** served with food while the passengers **28** in the automobile **27** in the first zone **21** are also subjected to appetizing food odors while gasoline odors are prevented from reaching such passengers in such first zone. Other conventional stimuli for sale of food are also concurrently used in the zone of the first automobile; e.g., music relating to food and pictures of the foodstuffs. Such music includes well recognized songs referring to food as "Let's Have Another Cup of Coffee," "Ham and Eggs," "Food, Glorious Food," "Suppertime," "Shortening Bread," may also be played at a volume so as to be audible to the passengers in the first zone (**21**).

Thereby the time required for refueling of a first automobile **27** in a first zone is utilized to provoke and promote the sale of foodstuffs to the passengers (**28A** and **28**) in such first automobile **27** when that automobile is moved to a second zone **29** of such installation and the view by the passengers at position **21** of such sale of foodstuffs to such passengers in the first automobile **27** is used to provoke and promote sale of foodstuffs to the passengers of another subsequently arrived automobile in combination with appetizing odors to which the passengers in such another automobile are subjected. Thereby the early food customers of car **27** at the installation **20** themselves become the psycho-

logical stimulus to passengers in automobiles subsequently serviced at such installation.

In the embodiment **30** the kitchen floor is raised so that the operator **55''** may have a better view could better see the cars as **27** and oversee the driveways for orders. Speakers as **39** at car **27** provide for communication between automobile passengers and the kitchen operator and, with such a higher kitchen and roof **60**, the menus at **59'''** are more visible to the passengers in each car as **27** at its stopping position **21**.

Another embodiment of installation, **120**, according to this invention is shown in FIGS. **4** and **5**.

It is a drive-up one-stop combination rather than a drive through or two-stop installation. The installation **120** comprises a fuel supply system **122**, an odor removal system **123**, a food dispensing system **124**, an aroma providing system **125**, and a roof and vapor guide and duct structure **160** in operative combination. The customer's cars, as **127**, **127'** and **127''** arrive with passengers therein, such as passengers **128A** and **128B** in car **127** at such installation and stay in a single stopping position in such installation. The stopping position is a fuel filling stop **121** next to a fuel pump: that stopping position is adjacent the kitchen **150**.

The fuel supply system **122**, the odor removal system **123**, the food dispensing system **124**, and the aroma providing system **125** utilize a common rigid circular roof structure **160** as is well known in the art and conventional, as in U. S. Pat. No. 3,079,960 which provides protection against the weather to the automobiles as **127**, **127'** and **127''** and the passengers therein carried as well as provides the means whereby the gasoline fumes are removed from possible access to the vicinity of the passengers and means whereby aromas and other stimuli are made sensible to the passengers in the automobiles during the dispensing of fuel through the fuel system **122** to the vehicles. The roof **160** has sloped segments as **183** and **184** and a crest **188**, each segment is sloped upwardly and centrally to the crest **188**. The roof **160** is attached to and supported by the kitchen **150**; the bottom of the roof is above the top of the cars parked thereunder for refueling.

The fuel supply and dispensing assembly **122** comprises, in operative combination a plurality of gasoline pumps, as **170** and **170'**, a rigid floor or support **178** for the automobiles, as **127**, **127'** and **127''**. Such floor surface is circular and formed of concrete and the gas tanks as **180** are located below such floor surface. The floor **178** is flat and locates each car, as **127**, when it first arrives at the installation in a stopping position **121** in the vicinity of a standard gasoline metering pump **170** as is well known and conventional, as in U. S. Pat. No.s 2,959,826 and 1,817,409. The first stopping position **121** location of a vehicle, as **127** at its stopping position on a predetermined zone of the floor **178** also provides a meaningful operative relationship for location of the aroma duct outlet nozzle **172** in embodiment **120** by locating the position of the passengers in a first automobile, as **127**, in such stopping position or zone where they may also view the menu **159** on the kitchen wall and roof, the kitchen **150** and passengers in other vehicles, as **127'**, receiving food and passengers in other vehicles eating food as shown for the vehicle **127''**. Each of the movable gasoline metering pumps, as **170**, is operatively connected to a gasoline tank or source therefor, as **180**. Each metering pump as **170** and **170'** has operatively connected thereto a standard flexible fuel outlet hose **181** with a fuel nozzle **182**.

The odor removal system **123** comprises fuel fume suction funnels, as **168**, fans as **169**, inlet collector ducts (as **161** and **161'**) and exhaust ducts as **162**. The fans and conduits or ducts, as **161**, **169** and **162** serve to draw and convey all the fumes in the vicinity of the fuel nozzle **182** at the stopping position, as **121**, in the installation **120** away from each car as **127** and accordingly remove the gasoline from detection or sensing by the passengers located in each such automobile, as **127**.

Concurrently, aroma dispensing or aromatizing ducts as **176** and **176'** supported in the roof **160** inundate the front end of each car, as **127** with air laden with appetizing odors. The distance from the perimeter **186** to the discharge opening **189** at roof apex **188** of the roof **160** serves to separate the inlet for the air to be treated by admixing with appetizing odors and subsequently passed to the passengers and the discharge **189** of the gases theretofore used to mix with and transport the undesirable gasoline odors.

A fuel fume suction funnel **168**, which is conical in shape and made of soft material is firmly attached to the nozzle **182**. The orifice of the funnel is at its base and such orifice surrounds the outlet of the fuel nozzle **182**. The funnel is made of material that is insoluble in gasoline and in water. One end of a flexible inlet collecting duct **161** is firmly and operatively connected to the narrower end of the funnel **168** and the other end thereof is connected to the inlet of a fan **169**, which fan is located under the roof **160**, and firmly supported above and on top of the kitchen **150**. Thereby when gasoline is pumped into the automobile **127** the air flow generated by the fan **169** causes the gasoline odors evolved at the nozzle **182** to be moved away from the automobile gas tank and, concurrently, away from the automobile occupants or passengers and to an exhaust collecting duct **162** (connected to outlet of fan **169**) which as is well known and conventional, as in U. S. Patent No. 1,890,224 conducts such gaseous mixture to and along the length of the roof **160** to the discharge **189** and the gasoline vapors are discharged from exhaust stack **189** near the top of the roof **160**. Such gases may be passed through a flame as **64** to destroy odors and readily burnable gases prior to passing out the exhaust stack orifice. The exhaust stack **189** is located as great a distance as possible from the location of the air intake of air to the kitchen **150**. The air intake zone **185** is located below the perimeter **186** end of the roof **160**. Thereby air is brought into the installation area with a clean smell by avoiding mixing with the less fresh or treated air and the only odors that the passengers, as **128** in each automobile, as **127**, receive when under the roof **160** is fresh air laden with the odors of appetizing foods or appetizing odors. The substantial length from perimeter **186** to apex **188** of the conical roof **160** thus provides a widely separate intake zone **185** for the gases passed to the automobile passengers and discharge zone **189** of the output gases and vapors and odors.

In the absence of such a system as herein provided, for a portion of time that is statistically fairly stable and also substantial, air would blow from the gasoline hose nozzle, as **182**, toward the passengers in each car, as **127**, or the food supply system **124** and adversely effect the passengers' appetite even if not conscientously sensible by them.

The food dispensing system 124 comprises a circular kitchen room 150 with transparent circular or octagonal window 154 and a telephone system between the passenger in each automobile, as 127, and the room 150, and transport means for delivery of the ordered food to the passengers.

Each of the automobiles, as 127, at installation 120 is positioned near a kitchen window, as 154', during the total path of each such automobile from the entrance 190 of the installation; via stopping position 121 to the installation exit 191. At the stopping position 121 the automboile is adjacent the window 154, which window is readily opened. The bottom ledge of the window serves as a shelf for passing food ordered by the passengers of vehicle 127 to those passengers.

The food dispensing system 124 comprises a circular kitchen room 150 wherein is located a stove 152 with transparent side windows 154, circular or octagonal in shape bounding the work area 153. Room 150 is fixedly located on the floor 178 in the center thereof as measured from the periphery of roof 160. The kitchen window portions are adjacent but central of each automobile, as 127 and 127'' at its stopping position. The interior of the kitchen is in the view of the passengers of each car while the car is being fueled as well as adjacent thereto: and the passenger of neighboring cars are in view of each other.

The kitchen operators, as 155 and 155' move about in the kitchen between the window and prepare food on stoves within view of the automobiles at their stopping positions, as 121 for car 127, 121+ for car 127'.

The stove 152 is used to cook food; the odors generated by such operation are passed into a kitchen odor outlet orifice, as 158 in the ceiling of the kitchen 50 and usually passed by a kitchen outlet duct 156 to a deodorizing flame as 64 and exhaust stack 189. A damper 165 (like 65) provides for passing the odors passed to orifice 158 to aroma dispensing ducts as 176 and 176' when the material being cooked has a particularly appetizing odor as steak and such odor is compatible or synergistic with the odors theretofore passed into such ducts and damper 166 in duct 156 is then closed: otherwise damper 166, (like 66) is open and damper 165 (like 65) is closed to avoid passing undesirable kitchen odors to passengers as 128 in vehicle 127 (and 28 in vehicle 27).

The kitchen 150 is also provided with a separate aroma developing stove 151. Stove 51 is a conventional stove with a separate aroma duct therefor. The aroma duct system comprises a plurality of ducts as 176 and 176' each extending from the kitchen room 150 to the stopping positions, as 121 and 121' for each of the vehicles, as 127 and 127', and such ducts are supported in and below the roof 160.

The dispensing system comprises a stove 151, an aroma fan 175 above stove 151 as is well known and conventional, as in U. S. Pat. Nos. 3,131,687 and 3,396,651 and aroma ducts as 176, 176' connected to the fan outlet of fan 175 and aroma duct outlets as 172 at the end of each such duct, as 176.

The aroma developing stove 151 heats materials that generate appetizing aromas that pass by an operating fan, as 175, to ducts as 176 and 176' to the zone whereat are located the passengers in each of the cars, as 127, at each stopping position as 121 whereat fuel is also placed in the gasoline tank of such automobile. Each of these ducts as 176 have a discharge outlet, as 172 located near to the perimeter of the roof segment adjacent the window of the automobile driver's seat when the automobile, as 127 is located at a fueling and stopping position, as 121, under the roof 160, and is preferably directed at such window.

The inward direction of the lowest portion 163 of the roof serves to direct the flow of aroma laden air toward the passenger compartment of the automobiles as 127 and 127' under the roof 160 when the outlet 172 of the duct 176 is not particularly directed to such window.

The outlet 172 is supported adjustably yet firmly on roof 160. The flow of air from zone 186 to the intake 187 of kitchen 150 carries the odors from outlet 172 toward and into each car as 127 under the roof 160 via ducts as 176.

The window 154 is not only transparent so that the passengers in any one car, as 127 in one stopping position, as 121, at installation 120 may see the operators, as 155 and 155' preparing food in the kitchen 150, but also the line of sight through the kitchen is unimpaired so that the passengers in any one car, as 127 can see through and across the kitchen window 154 to view passengers in another car, as 127'' receiving food while the passengers in one car as 127 are having their car refueled and are subjected to appetizing odors as above described.

Accordingly, the structure of installation 120 provides that while each car, as 127 is supplied with fuel at a stopping station 121 the ducts, as 176 discharge appetizing odor laden vapors in a zone between the outer edge of the roof 160 and the room 150 for food, as in FIGS. 4 and 5; thereby passengers of a given car, as 127 on the floor 178 will be supplied with appetizing aromas.

The protective shell or roof 160 not only supports ducts as 176 for selectively distributing appetizing odors to the zones wherein are located the passengers in the vehicles which are being refueled but also such roof is so designed to provide support for a removal and/or dispersion ducts for waste gases provided by the vehicle fueling operation and system. Further still, because the roof has an upwardly and centrally located apex accumulation of undesirable odors is avoided because of the ready elimination thereof through the exhaust 189 at the apex of the roof.

Illustrated menus, as 159, 159' are also located on the walls of the kitchen room wall below and above the window 154 to provide for presentation to the automobile passengers, as 128 and in each car as 127 at each position as 121.

While the volatile flavors are complex chemical mixtures which are however resolved by chromatography, empirically such odors are readily produced by cooking standard foodstuffs; e.g., by brewing ground coffee beans in water or frying or sauteing onion slices in a deep fat fryer, pan or grill, or heating extract of artificial vanilla (or vanillin) or ground vanilla beans on a hot grill (without carmelizing or burning), or baking bread and passing the appetizing odors evolved thereby through the nonporous ducts, 176, which have walls that are readily washed and cleaned with water; e.g., smooth walled galvanized tubing, or plastic tubing having a high (over 250° F.) melting point, or copper or aluminum tubing. The conduits, 176, are heated by pipe heating tape (tape containing electrical heating elements) to prevent condensation of such vapors on the walls of the ducts during cold weather.

By the arrangement of installation **120** the very volatility of gasoline fuels for automobiles that usually makes the zone of dispensing of gasoline unattractive for eating food because of the effect of gasoline odors on taste is used for the removal of such odors in the stream from fan **169** to duct **161** and **162** while, concurrently, the period of time (3–10 minutes) required of the passengers constrained within an automobile **127** to wait while their automobile is being refueled is used to promote the sale of foods to such passengers (by the air moving system that subjects the passengers to positive olfactory stimuli of appetizing odors).

The aroma supplying system also, by passing into the vicinity of the passengers of each of the automobiles, as **127,** at the installation **120** also serves to block passage to the passengers of gasoline odors that might limit the appetite provocation of the aroma laden air during the time of such automobile servicing and prior to the time of food delivery to the passengers of such car.

The automobile passengers, **128** and **28A**, while confined in their automobile, as **127,** while it is constrained to remain in the fixed location **121** while it is being refueled and inspected for servicing needs in a first zone of installation **120** are also subjected to viewing passengers in other automobiles as **127''** in a distant zone as **121''** served with food while the passengers in the automobile **127** in the first zone **121** are also subjected to appetizing food odors while gasoline odors are prevented from reaching such passengers in such first zone. Other conventional stimuli for sale of food are also concurrently used in the zone of the first automobile; e.g., music relating to food and pictures of the foodstuffs. Such music includes well recognized songs referring to food as "Let's Have Another Cup of Coffee," "Ham and Eggs," "Food, Glorious Food," "Suppertime," "Shortening Bread," may also be played at a volume so as to be audible to the passengers in the first zone.

Thereby the time required for refueling of a first automobile **127** in a first zone **121** is utilized to provoke and promote the sale of foodstuffs to the passengers **128A** and **128** in such first automobile **127** and the view by the passengers at position **121** of such sale of foodstuffs to such passengers in the first automobile **127** is used to provoke and promote sale of foodstuffs to the passengers of another subsequently arrived automobile in combination with appetizing odors to which the passengers in such another automobile as **127'** are subjected. Thereby the early food customers of car **127** at the installation **120** themselves become the psychological stimuli to passengers in automobiles as **127'** subsequently serviced at such installation.

The elevated location of the exhausts **89** and **189** supported on roof **60** and **160** in embodiments **20** and **120** respectively, provide support for sign surfaces **95** and **195.** Such surfaces used for exhibiting messages for highway travelers: such signs may be the conventional signs as in wherein each of an array of lights **96** and **196** are lit to provide letters of the English alphabet and numbers in array to provide a message. The messages are determined by punched cards or typewritten letters positioned in a light switch circuit as in U.S. Pat. No. 2,422,149 and 1,894,380 which circuit has the central switch **97** and **197** therefor located in the kitchen **50** and **150** respectively.

As the control means for the sign are within the kitchen enclosure or rooms **50** and **150,** the passengers in cars as **27** and **127** desiring to leave messages for other travelers or receive messages do so at the window to the kitchen and are again exposed to stimulus to purchase food while awaiting dispatch or receipt of their messages.

In the installation **120** of FIGS. **4** and **5** the front end **44** of each car as **127** is adjacent a vertically extending barrier **40** that extends radially from the center of the circular room **150** for a distance of about 6 feet from the window **154.**

The rear end **41** of each car as **127** extends in a direction parallel to the circular or octagonal window **154.** The sides of the octagonal ledge **43** bounding the window are each **20** feet long. Each gasoline pump as **170** is thus located in a triangular area as **45** and **45'** between the rear side **42** of one car as **127'''** and the front **44** of another car as **127.** A standard stationary gasoline pump firmly attached to the surface **178,** as **70** in FIG. **1,** could be used (as is shown in FIG. **3** as **170A**).

Preferably a relatively mobile unit **170** is used in lieu of pump **70**: it comprises a rigid, horizontally extending support arm **171,** a meter **179** supported on the outer end of arm **171,** a hose **181** and a nozzle as **182.** A gasoline fuel line **173** connects the meter **179** to the fuel source or tank **180.** A support lug **177** at the center position or end of arm **171** is firmly yet rotatably supported from frame member **46** of roof **160.** The arm **171** and meter **179** are thus rotatable about lug **177** and readily moved to position the hose as **181** and nozzle as **182** and funnel **168** attached thereto relative to the cars in the stopping zones as **121, 121'** with minimal danger of collision between automobiles located at installation **120** and the gasoline meter.

I claim:

1. Structure for dispensing automotive fuel and food for human consumption said structure comprising, in operative combination, a fuel supplying and dispensing structure, a food preparation and dispensing structure, an aroma distributing system and a gas removal system;

a. the fuel supplying and dispensing system comprising a floor surface, a roof, a fuel source, and a fuel pump; said fuel pump and said roof located above said floor surface said pump operatively connected to said fuel source and to an outlet nozzle;

b. the food dispensing structure comprising an enclosure under said roof, a cooking stove in said enclosure, an orifice open to the interior of said enclosure and said cooking stove, an outlet duct from said orifice to an outlet stack in said roof, a working area in said enclosure adjacent said stove;

c. an aroma distributing system comprising a distributing duct extending from said enclosure to an outlet under said roof between said pump and said enclosure;

d. a gas removal structure comprising gas collector means open to the zone wherein is located said fuel pump outlet nozzle and gas outlet means supported on said roof.

2. Structure as in claim **1** including also connector duct means between said distributing duct and said orifice.

3. Structure as in claim **2** including also a separate stove, a hood thereover operatively connected to said distributing ducts, and damper means between said distributing duct and said orifice.

4. Structure as in claim **3** wherein said fuel pump is adjacent a car stopping zone on said floor and said dis-

tributing duct has an outlet at such car stopping zone.

5. Structure as in claim 4 wherein said roof is elongated in a first direction and said floor surface has a car stopping zone adjacent said fuel pump and another car stopping zone under said roof is spaced away therefrom along said first direction and is adjacent said enclosure.

6. Structure as in claim 4 wherein said roof is circular and said car stopping zone adjacent said fuel pump is adjacent to said enclosure.

7. Structure as in claim 1 wherein said collector means comprises a collector duct, said duct having an inlet opening adjacent to and attached to said fuel pump nozzle, fan inlet means operatively connected to said collector duct and fan outlet means connected to said gas outlet.

8. Structure as in claim 7 comprising an air inlet to said enclosure, said air inlet adjacent one end of said roof and said outlet stack spaced away therefrom.

9. Structure as in claim 8 wherein said outlet stack is adjacent another end of said roof.

10. Structure as in claim 8 wherein said roof has a lower circular periphery, an upper central outlet and sign means adjacent said upper outlet connected to control means therefor within said enclosure.

11. Structure as in claim 7 wherein the fuel supplying and dispensing system comprises a plurality of car stopping zones on said floor surface, a plurality of fuel pumps at said plurality of car stopping zones, said fuel pumps and said roof located above said stopping zones and said pumps, each of said pumps connected to said fuel source, and each of said pumps operatively connected to an outlet nozzle therefor,

the aroma distributing system comprising distributing ducts extending from said enclosure to a plurality of outlets under said roof, said outlets located between said pumps and said enclosure,

the gas removal structure comprising gas collector means open to each of a plurality of car stopping zones in each of which is located one of said fuel pump outlet nozzles.

12. Structure as in claim 11 including also connector duct means between said distributing ducts and said orifice and a separate stove, a hood thereover operatively connected to said distributing ducts, and damper means between said distributing ducts and said orifice.

13. Structure as in claim 11 wherein said roof is elongated in a first direction and said floor surface has a set of first car stopping zones adjacent said fuel pumps and another set of car stopping zones spaced away from said first set of car stopping zones along said first direction and each of said second sets of stopping zones is adjacent said enclosure.

14. Structure as in claim 11 wherein said roof is circular and said car stopping zones adjacent said fuel pump are adjacent to said enclosure.

15. Structure as in claim 14 wherein said roof is circular and said floor has one group of car stopping zones adjacent said fuel pumps and adjacent said enclosure.

16. Structure as in claim 15 wherein said collector means comprises a plurality of collector ducts, said ducts each having an inlet opening adjacent to and attached to one of said fuel pump nozzles, fan inlet means operatively connected to said collector ducts and fan outlet means connected to said gas outlet.

17. Structure as in claim 13 comprising an air inlet to said enclosure, said air inlet adjacent one end of said roof and said outlet stack spaced away therefrom.

18. Structure as in claim 16 wherein said roof has a lower circular periphery, an upper central outlet and sign means adjacent said upper outlet operatively connected to control means therefore within said enclosure.

19. Process of dispensing automotive fuel into an automobile and dispensing food for human consumption comprising locating an automobile carrying human passengers in a first zone and adding gasoline fuel to such automobile, concurrently passing odors appetizing to humans in sensible amount to the vicinity of the passengers in said automobile, preparing food in the view of said passengers, and constraining the automobile to pass to a second zone whereat food is dispensed to said passengers.

20. Process as in claim 19 including step of emanating vapors while adding gasoline fuel to said automobile and transporting substantially all said vapors to an exhaust outlet distant from said automobile.

21. Process of dispensing automotive fuels to automobiles and dispensing food for human consumption comprising steps of locating each of a series of automobiles carrying human passengers in a first stopping zone and there adding fuel to one such automobile and concurrently passing appetizing odors in sensible amount to the vicinity of said passengers in said one automobile in said first stopping zone, and preparing food at a location in view of said passengers in said one automobile, directing said passengers in said one automobile to move to a second stopping zone near said location whereat food is dispensed to said passengers in said one automobile while locating in said first stopping zone a subsequent automobile in said series of automobiles carrying human passengers and there adding fuel to said subsequent automobile, concurrently passing appetizing odors in sensible amount to the vicinity of said passengers in such subsequent automobile located in said first stopping zone and preparing food at said location in view of said passengers in said subsequent automobile and while said passengers in said first automobile in said second stopping zone are in the field of view of said passengers in said subsequent automobile and directing said passengers in said subsequent automobile to move to a second stopping zone near said location whereat food is dispensed to said passengers in said subsequent automobile.

22. Process as in claim 21 comprising step of emanating vapors while adding gasoline fuel to each said automobile and transporting all said vapors to an exhaust outlet distant from said automobiles.

23. Process of dispensing automotive fuels to automobiles and dispensing food for human consumption comprising steps of locating each of a series of automobiles carrying human passengers in a first stopping zone and there adding fuel to one such automobile and concurrently passing appetizing odors in sensible amount to the vicinity of said passengers in said one automobile in said first stopping zone and preparing food at a location in view of said passengers in said one automobile, dispensing food to said passengers in said one automobile in said first stopping zone while locating a subsequent automobile carrying human passengers in a second stopping zone whereat said passengers in said first automobile are in the field of view of the passengers in said subsequent automobile, and in said second stopping zone adding fuel to such subsequent automobile while passing appetizing odors in sensible amount to

the vicinity of said passengers in said automobile in said second stopping zone and preparing food at said location in view of said passengers in said subsequent automobile in said second zone and dispensing food to said subsequent automobile in said second zone.

24. Process as in claim **23** comprising step of emanating vapors while adding gasoline fuel to said automobiles and transporting substantially all of said vapors to exhaust outlet means distant from said automobiles.

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