United States Patent [19]

Lieb et al.

[11] **3,771,226**

[45] **Nov. 13, 1973**

[54] **WATER FLUSH CUSPIDOR**

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[73] Assignee: **Syndent Corporation,** West Conshohocken, Pa.

[22] Filed: **July 23, 1971**

[21] Appl. No.: **165,617**

[52] **U.S. Cl.** **32/22**

[51] **Int. Cl.** **A61c 19/02**

[58] **Field of Search** 297/188; 9/263; 32/22

[56] **References Cited**

UNITED STATES PATENTS

3,568,317	3/1971	Braun et al.	32/22
3,530,513	9/1970	Maurer et al.	32/22

FOREIGN PATENTS OR APPLICATIONS

1,369,478	7/1964	France	32/22

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[57] **ABSTRACT**

A water flush cuspidor adapted for use with a dental chair that is vertically movable. The water flush cuspidor is mounted on the seat plate by hinged arms. The cuspidor is rotatable from the left side to the right side of the dental chair, rendering the chair usable by both left-handed and right-handed dentists. Additionally, the cuspidor is movable longitudinally relative to the chair. As the chair is raised, the cuspidor will be raised therewith, thereby placing the cuspidor at the proper height for patient use at all times without further adjustment.

10 Claims, 14 Drawing Figures

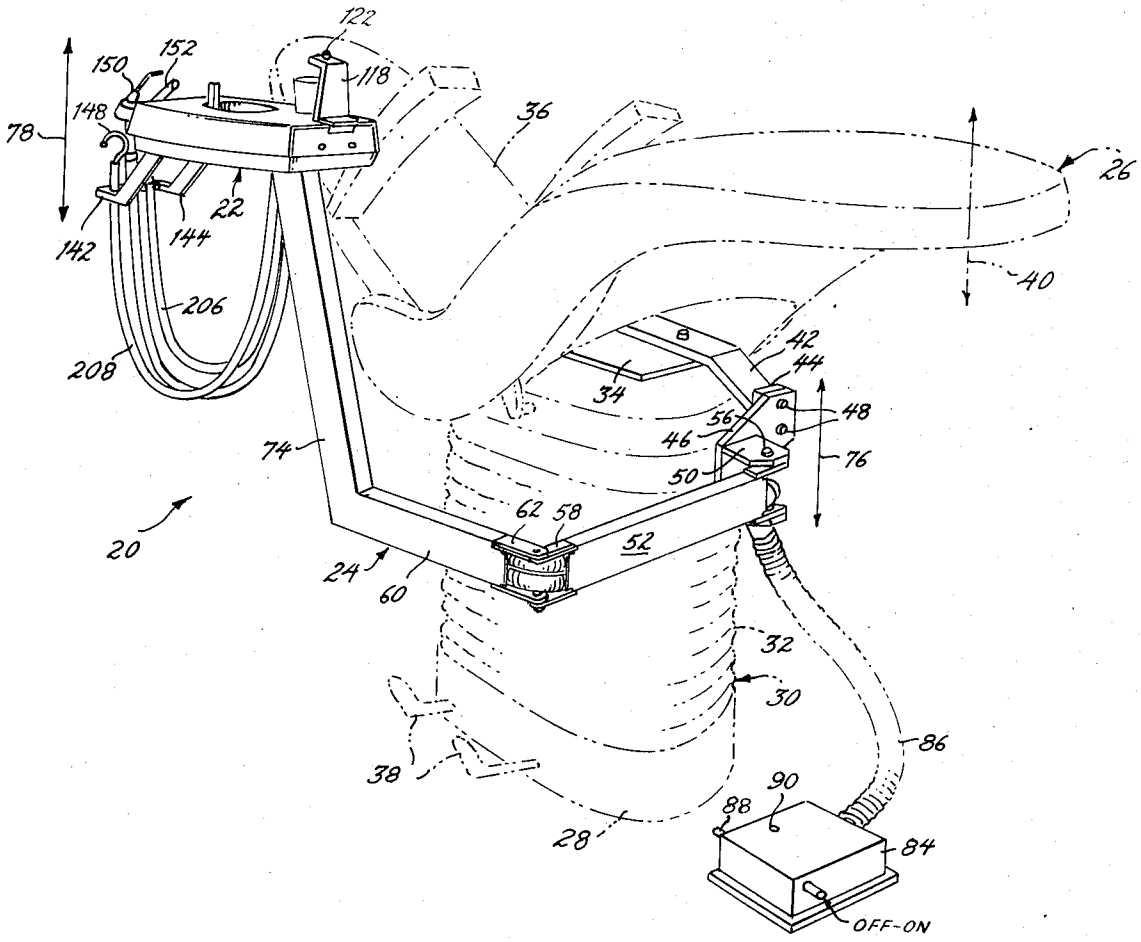
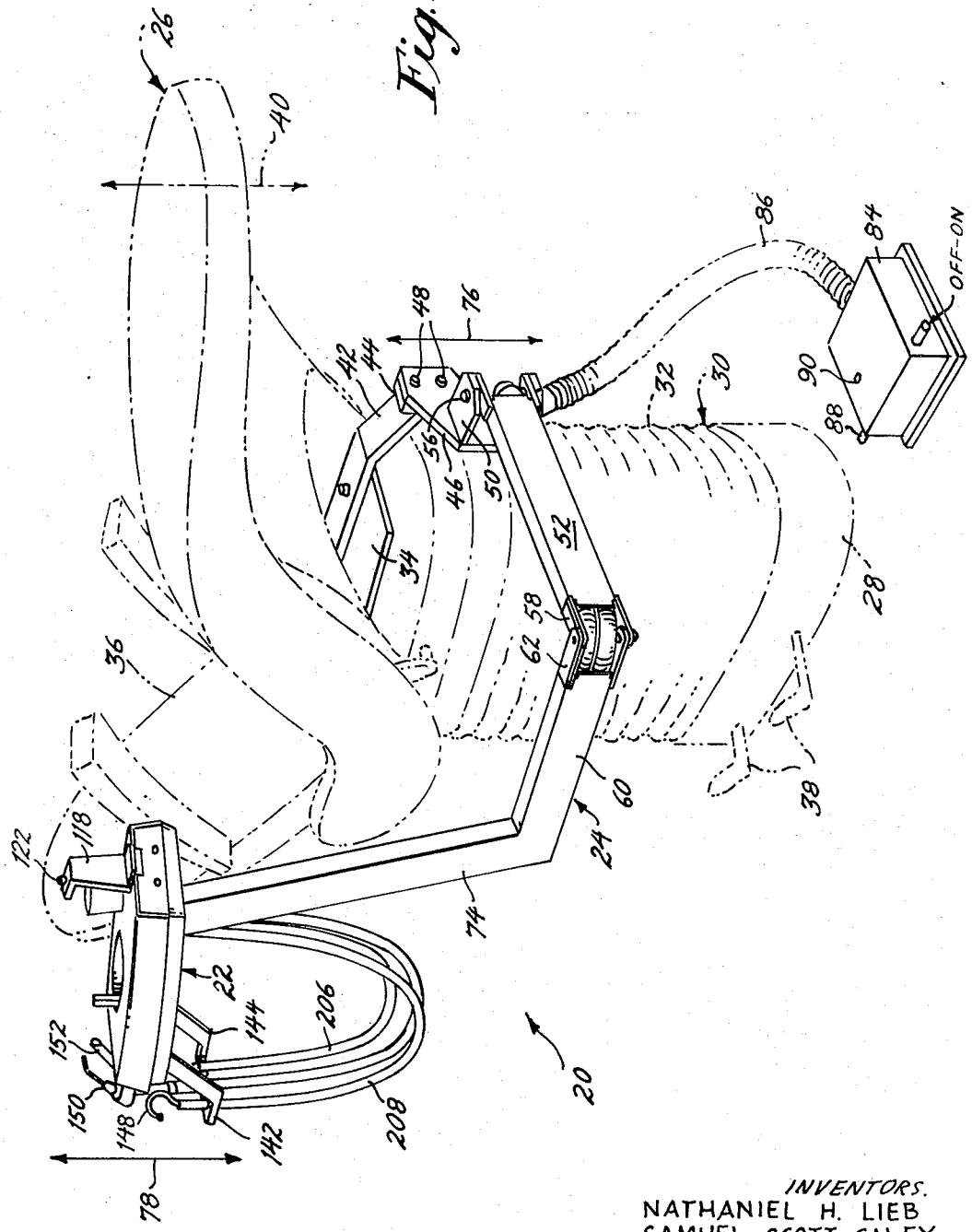


Fig. 1.



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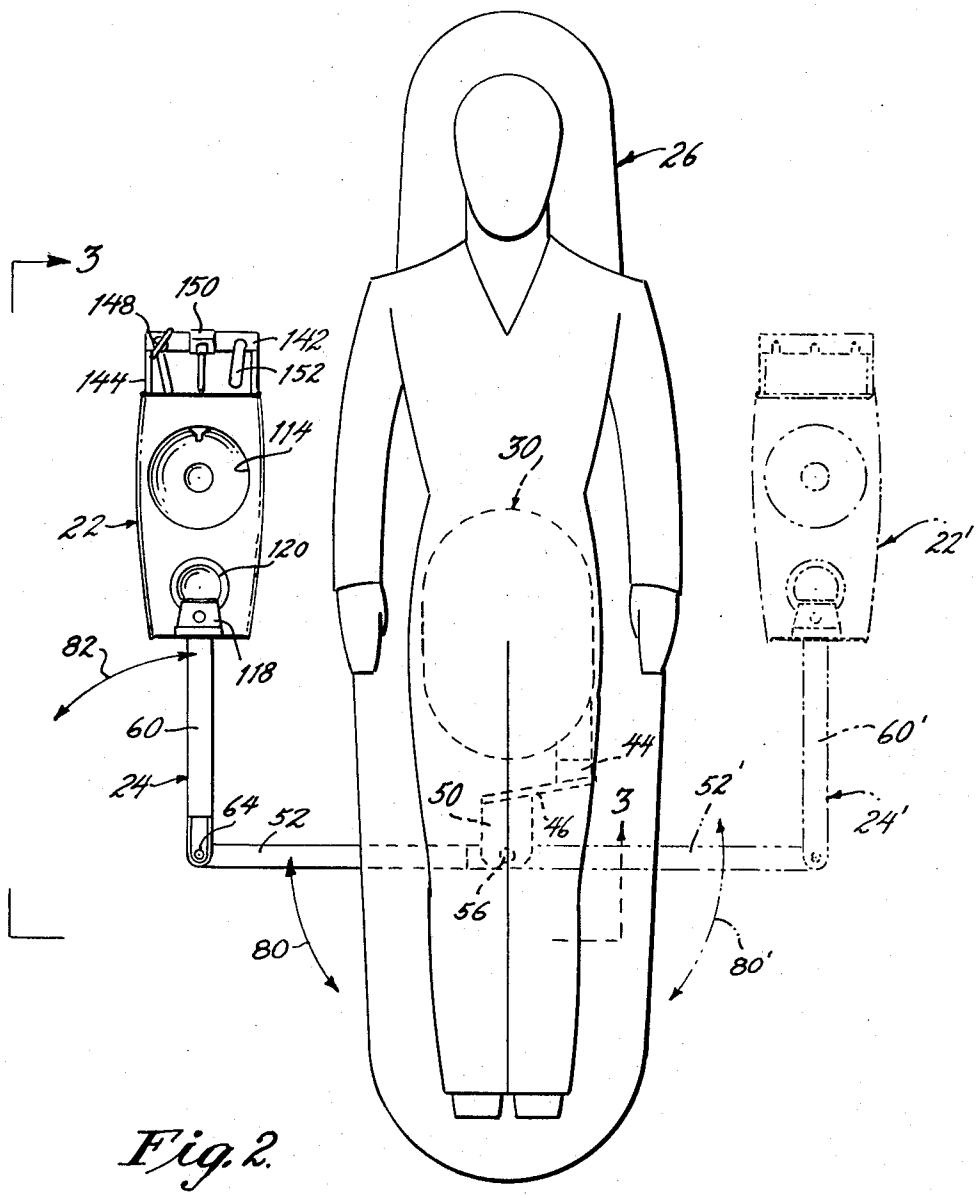


Fig. 2.

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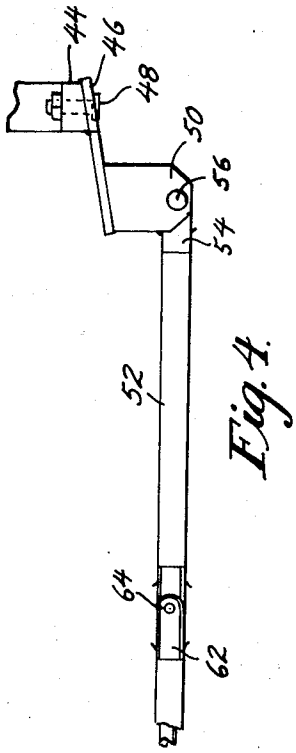


Fig. 4.

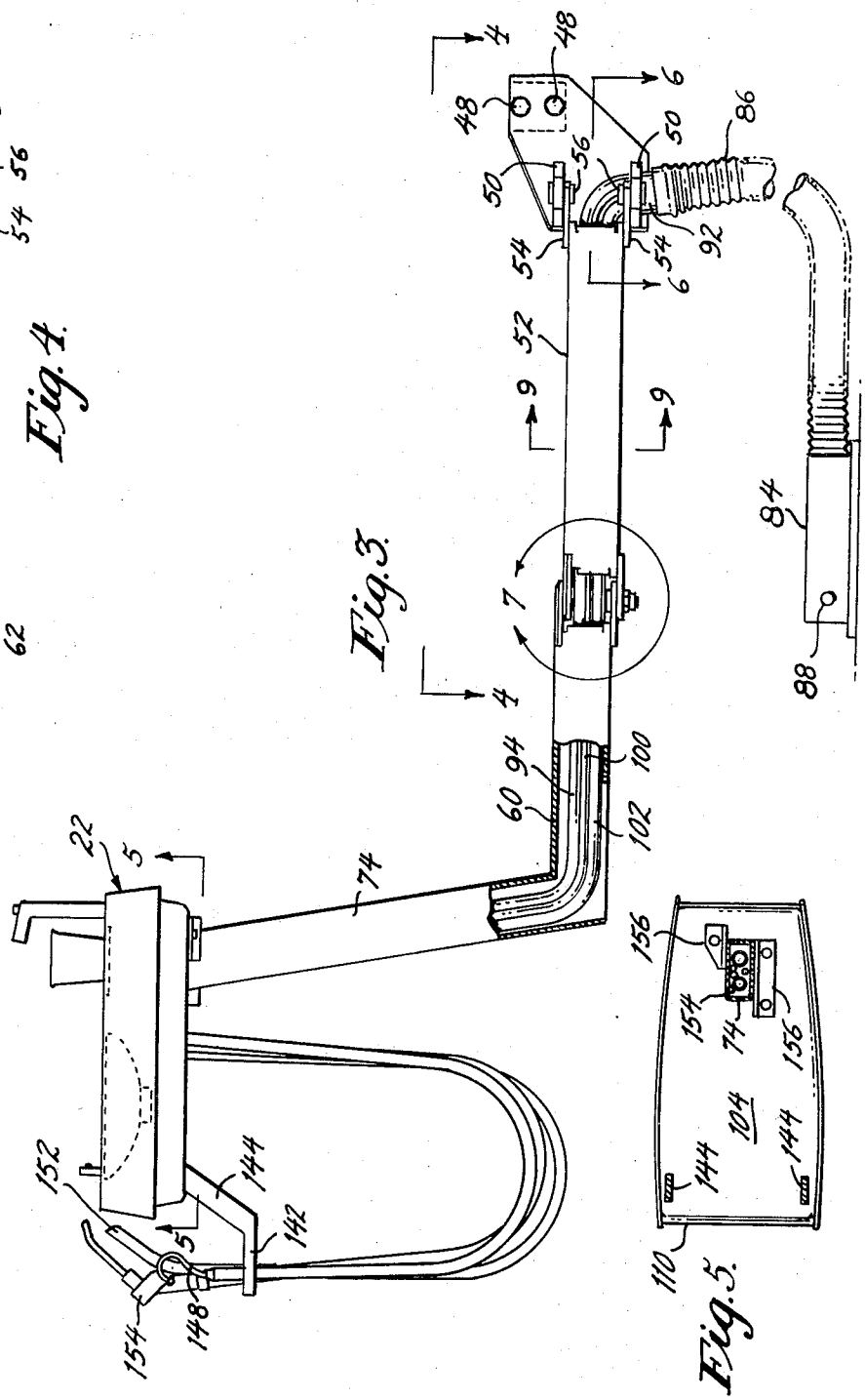


Fig. 3.

Fig. 5.

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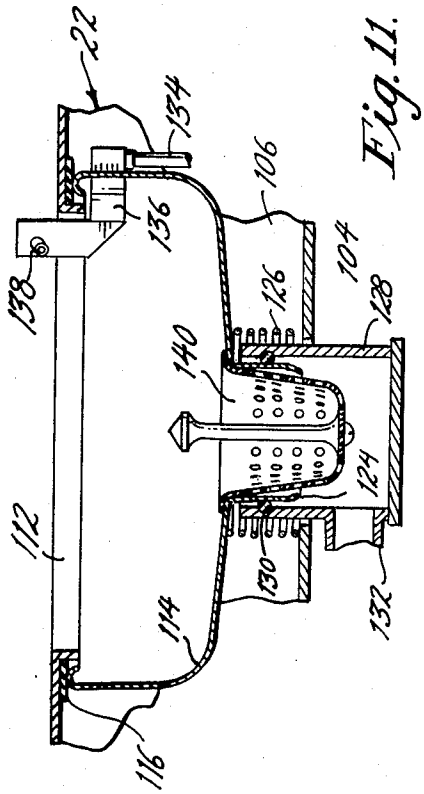


Fig. 11.

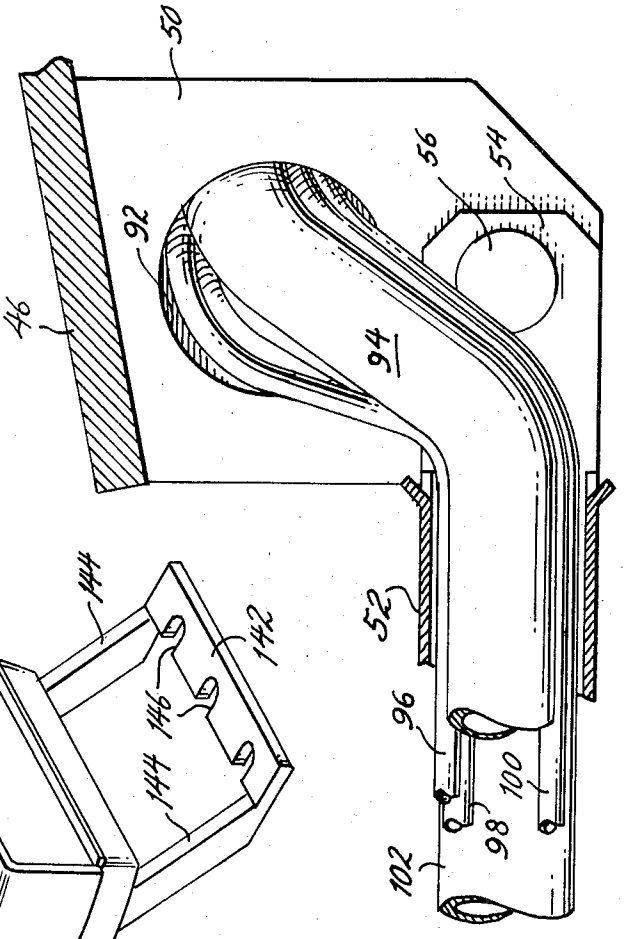


Fig. 6.

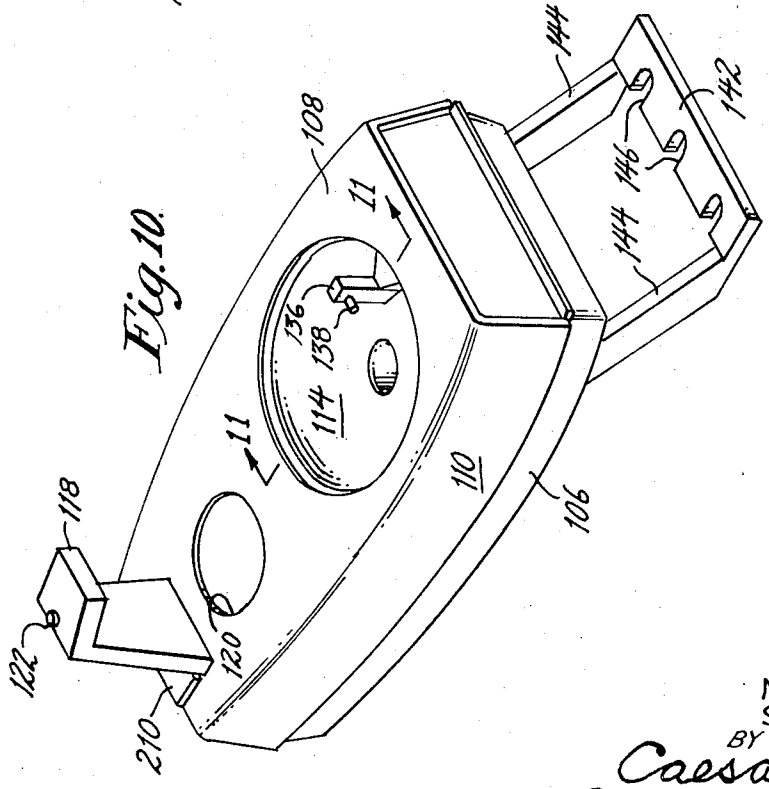


Fig. 10.

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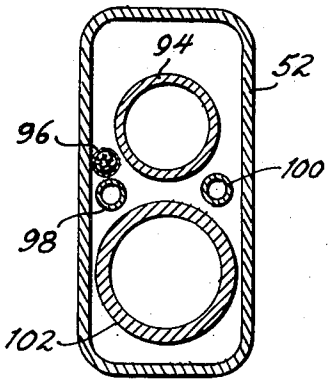
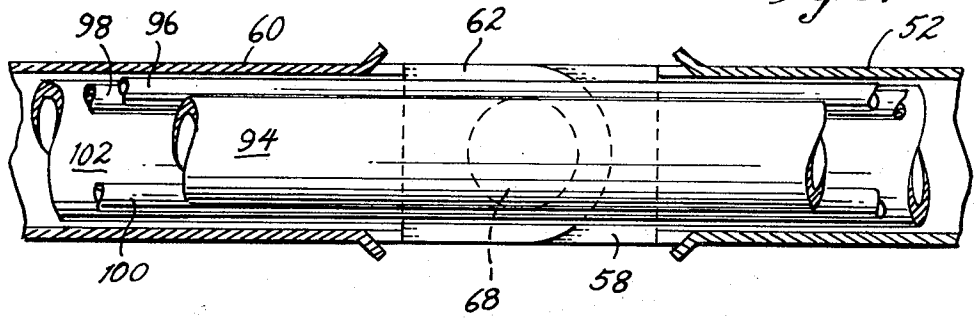


Fig. 9.

Fig. 8.



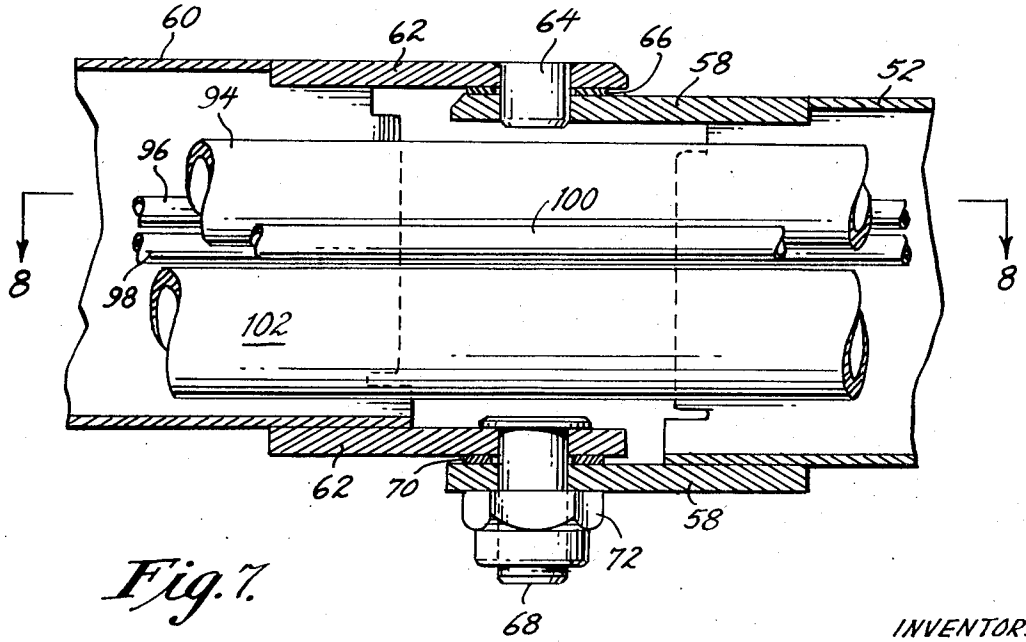
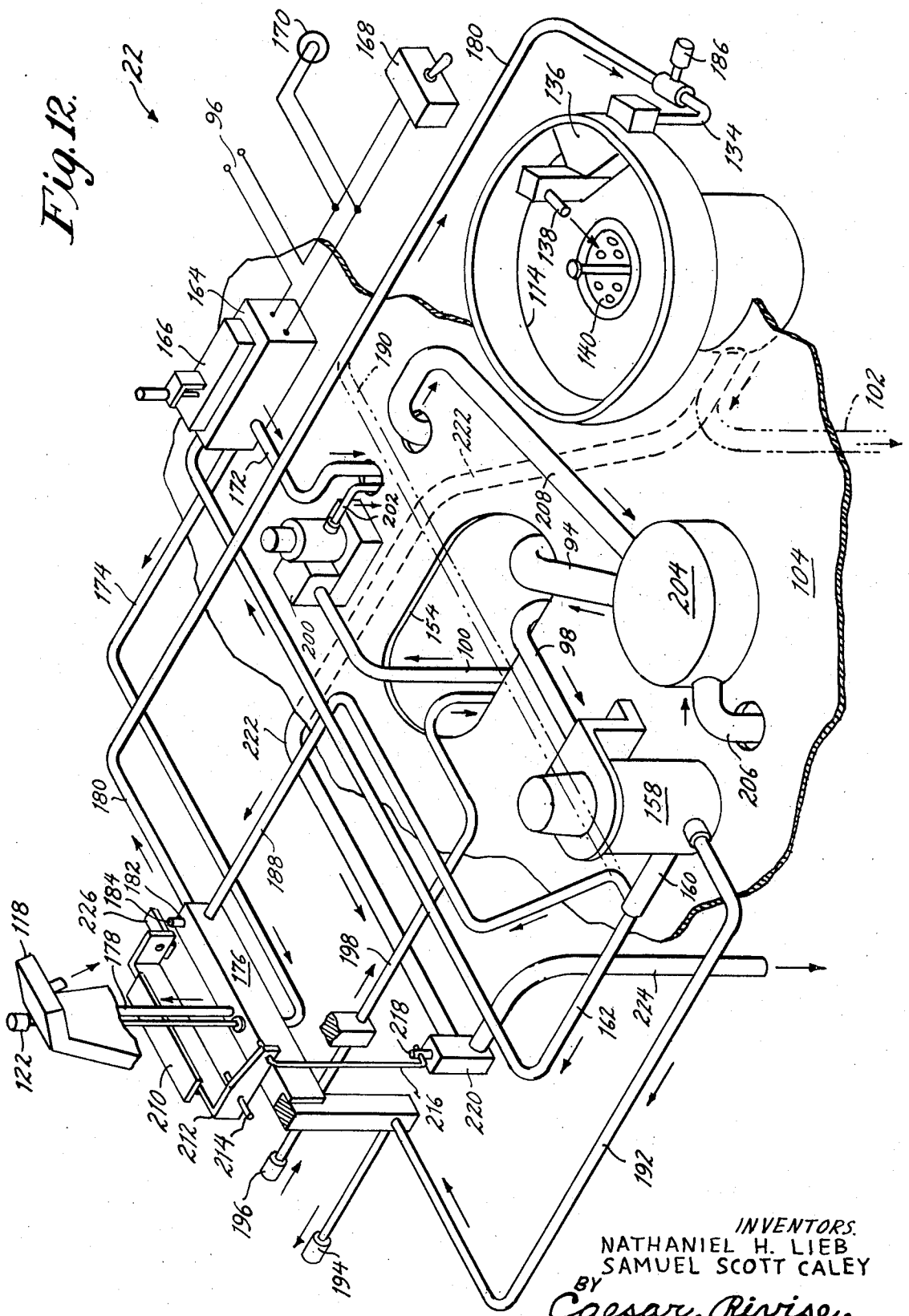


Fig. 7.

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Fig. 12.



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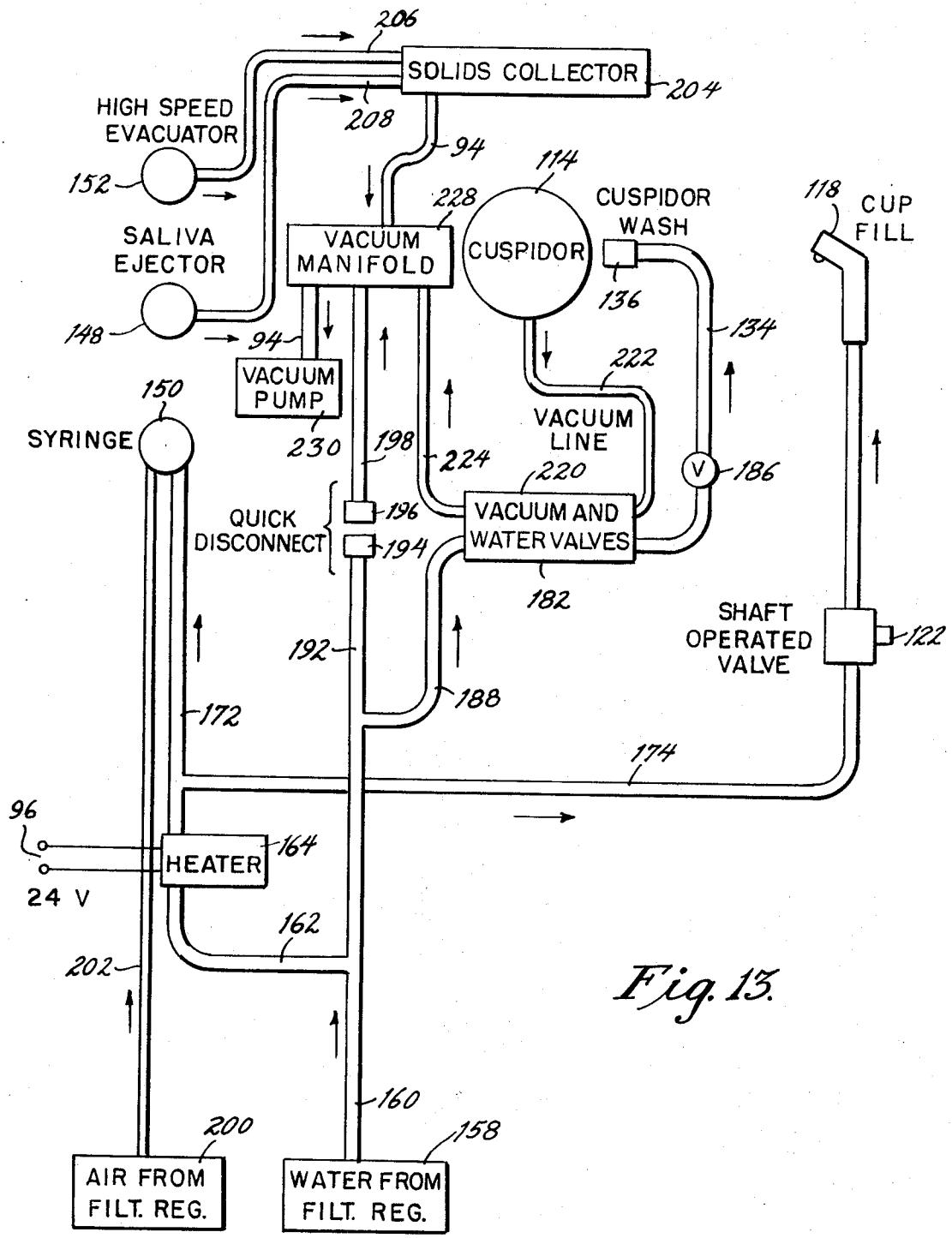


Fig. 13.

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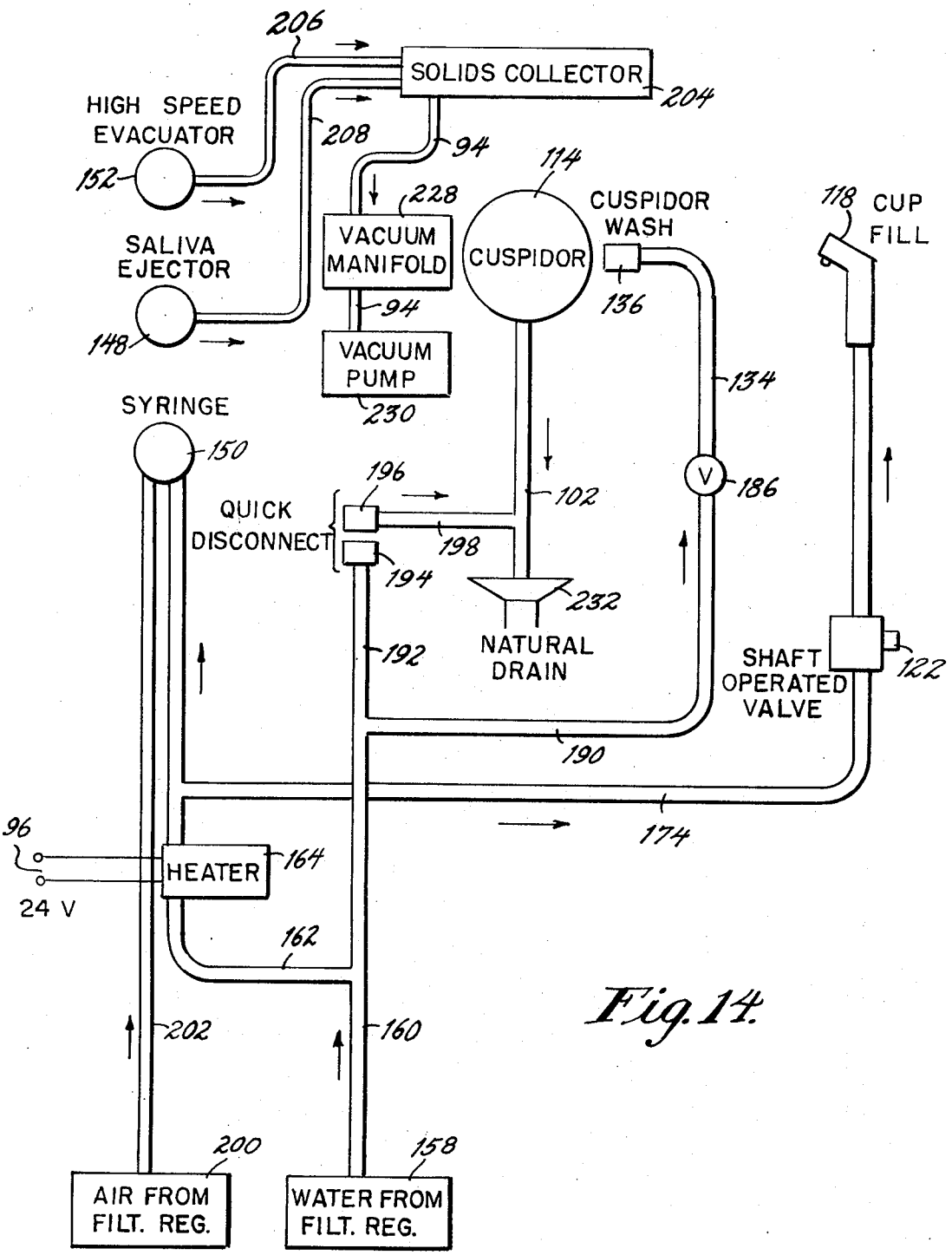


Fig. 14.

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WATER FLUSH CUSPIDOR

This invention relates to a water flush cuspidor, and more particularly, to a water flush cuspidor that is particularly adapted for use on dentists' chairs.

Typically, dentists' offices are provided with chairs that are vertically adjustable and with consoles which house the dentists' tools and the water flush cuspidor for the patient. The cuspidor is rigidly mounted with respect to the chair, and cannot be moved to accommodate varying sized patients. Frequently, therefore, a great deal of time is lost when the dentist is treating the patient because of the time necessary to allow the patient to use the cuspidor in order to empty his mouth. Additionally, because of the fixed location of the cuspidor, a given chair can only be used by either a right-handed dentist or a left-handed dentist, but not both, since the cuspidor will interfere with dentists' use of the chair on the side of the chair where the cuspidor is located.

An apparatus which has overcome the bulk of the problems of the fixed cuspidor is disclosed in U.S. Pat. No. 3,524,676. This patent discloses a water flush cuspidor that is mounted on a ring supported at the base of the dental chair. The cuspidor can be rotated to either side of the chair, thereby rendering the same useful with both left-handed and right-handed dentists. Additionally, the cuspidor is adjustable in height, and accordingly, can be used with varying sized patients.

The device of this invention includes all of the advantages of the device disclosed in U.S. Pat. No. 3,524,676, and in addition, possesses a number of additional advantages of its own. The device of this invention is rotatable around the chair, and accordingly can be used either by left-handed or right-handed dentists. This feature is particularly useful in dental clinics, such as those at dental schools, where a number of different dentists or oral hygienists will be using the same chair. Thus, the chair can readily be used by any of the students in the school, and it will not be necessary to provide left-hand chairs and right-hand chairs for the students.

One of the novel features of the device of this invention is the fact that the cuspidor will rise or be lowered along with the rising or lowering of the chair. Thus, it will not be necessary to reposition the cuspidor after the chair has been raised. In this device in U.S. Pat. No. 3,524,676, the mounting of the cuspidor is independent of the raising and lowering of the chair. Accordingly, the device must be readjusted each time the chair is raised or lowered.

Another feature of the device of this invention is the fact that the cuspidor is readily moved forward or backward, that is, along the longitudinal axis of the chair, to accommodate the size of the patient. This cannot be readily accomplished with the device disclosed in U.S. Pat. No. 3,524,676.

Another advantage of the device of this invention over that disclosed in U.S. Pat. No. 3,524,676 is that the chair movement will not affect the cuspidor. Thus, in the prior device, unless the cuspidor has been moved out of the way with respect to the chair, the chair can damage the unit when it is raised or lowered. In the device of this invention, the raising or lowering of the chair will automatically raise or lower the cuspidor, and no damage can result to the cuspidor from this movement.

It is accordingly an object of this invention to provide a novel water flush cuspidor.

It is another object of this invention to provide a novel water flush cuspidor that is adapted for mounting on a dental chair, and which will rise or be lowered along with the raising or lowering of the dental chair.

These and other objects of the invention are accomplished by providing a water flush cuspidor comprising a bowl, a support assembly for the bowl, said support assembly being adapted to be rotatably mounted on the seat plate of a dental chair, whereby the raising or lowering of the chair will raise or lower the support assembly, said support assembly including hinge means for varying the horizontal location of said bowl.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. **1** is a perspective view of the water flush cuspidor assembly of this invention, with a dental chair shown in phantom;

FIG. **2** is a top plan view of the device of FIG. **1**, and showing the two positions for the device on opposite sides of the dental chair;

FIG. **3** is an elevational view taken in the direction of line **3—3** of FIG. **2**, with portions broken away for the purpose of clarity;

FIG. **4** is a top plan view of the attachment of the support assembly to the dental chair, and is taken in the direction of line **4—4** of FIG. **3**;

FIG. **5** is a sectional view taken along the line **5—5** of FIG. **3**;

FIG. **6** is an enlarged sectional view taken along the line **6—6** of FIG. **3**;

FIG. **7** is an enlarged sectional view taken in the area **7** of FIG. **3**;

FIG. **8** is a sectional view taken along the line **8—8** of FIG. **7**;

FIG. **9** is an enlarged sectional view taken along the line **9—9** of FIG. **3**;

FIG. **10** is a perspective view of the water flush cuspidor;

FIG. **11** is a sectional view taken along the line **11—11** of FIG. **10**;

FIG. **12** is an exploded diagrammatic fragmentary perspective view showing the plumbing and electrical components enclosed in the cuspidor housing;

FIG. **13** is a piping diagram for the vacuum operated cuspidor; and

FIG. **14** is a piping diagram for the natural drain cuspidor.

Referring now in greater detail to the various figures of the drawings wherein like reference characters refer to like parts, a water flush cuspidor unit embodying the present invention is generally shown at **20** in FIG. **1**. Device **20** basically comprises a cuspidor **22** and a support assembly **24**.

The device of this invention is adapted to be mounted on any dental chair. It is particularly useful on dental chairs that can be raised or lowered, which is a property of substantially every dental chair now in use. By way of example, a dental chair has been shown in phantom at **26** in FIG. **1**. Chair **26** includes the usual elements of the dental chairs currently in use, such as a base **28**, a seat raising assembly **30** which is housed in an accordion pleated sleeve **32**, a seat plate **34** and a

seat 36. The chair also includes pedals, such as those shown at 38, for raising and lowering the seat and for tilting the seat. The vertical reciprocation of the seat is indicated by arrows 40 in FIG. 1.

The support assembly 24 for the device of this invention is secured to chair 26 through the use of a bar 42 (FIG. 1) that is bolted to seat plate 34. Bar 42 includes a vertical plate 44 at the end thereof. As seen in FIGS. 1 and 4, a mounting plate 46 is secured on plate 44 through the use of bolts 48 and associated nuts. A pair of spaced flanges 50 projects horizontally outward from the front face of plate 46 (FIGS. 1 and 3). Arm 52 of support assembly 24 includes a pair of plates 54 that are pivotally mounted in flanges 50 by pins 56.

As seen in FIG. 7, arm 52 is hollow, and includes a pair of horizontal plates 56 at one end thereof. A second arm 60 includes a pair of plate extensions 62 which overlie plates 58. Upper plate 62 includes a downwardly projecting pin 64 that is received in an opening in the upper plate 58. A washer 66 separates the two plates.

A bolt 68 passes through a pair of aligned holes in the lower plate 62 and the lower plate 58. A washer 70 is telescoped over bolt 68 and positioned between the plates. A nut 72 secures the bolt in place.

As seen in FIG. 1, arm 60 includes an upwardly inclined extension 74. Cuspidor 22 is mounted on the top of extension 74. As further seen in FIG. 1, arm 52 is held in its horizontal position through flanges 50 and their associated pins. Likewise, arm 60 is maintained in a horizontal plane through plates 62 and 58 and pin 64 and bolt 68. The extension 74 in turn maintains the cuspidor 22 in its horizontal position.

As chair 26 is raised, seat plate 34 will be raised therewith. This in turn will cause the raising of arms 52 and 60 and the cuspidor 22. Likewise, as the seat is lowered, the arms and the cuspidor will also be lowered. The vertical reciprocation of the support assembly 24 and the cuspidor 22 are indicated by arrows 76 and 78, respectively, in FIG. 1. Additionally, as seen in FIG. 2, the support assembly 24 and cuspidor 22 are swingable about chair 26 from the position shown in full line on one side of the chair to the position shown in phantom at 24' and 22', respectively, on the other side of the chair.

Referring to FIG. 2, it is seen that arms 52 are rotatable about pins 56 from any position on one side of the chair, which is shown in full line, to any position on the other side of the chair, which is shown in phantom at 52'. The arc of rotation of arm 52 is indicated by arrows 80 and 80'. Likewise, arm 60 is rotatable about arm 52 through pin 64 and bolt 68. This arc of rotation is indicated by arrows 82 in FIG. 2. It should also be noted in FIG. 2 that cuspidor 22 is completely horizontally adjustable on either side of chair 26. Thus, the cuspidor can be moved fore and aft, that is, longitudinally along the side of the chair, and in addition, can be moved toward and away from the patient. This is accomplished through the use of the dual pivot points at both ends of arm 52. Thus, the cuspidor is substantially universally adjustable in it horizontal plane.

Referring to FIG. 1, it is seen that a control box 84 is provided for the cuspidor 22. A flexible conduit 86 emanates from control box 84 and enters arm 52. The flexible conduit houses all of the various lines used in the operation of the cuspidor 22. Thus, it will contain a drain line, when the cuspidor is used with the natural drain, an electrical line, a water supply line, an air supply line and a vacuum drain line. All of these lines are connected in box 84 with permanent lines within the dentists' office or within the clinic. Insofar as the vacuum line is concerned, it will be connected to the vacuum source in box 84.

Box 84 also includes 24 volt transformer for the electrical line. A rod 88 (FIG. 1) passes through box 84, and is movable horizontally therein. This rod is used for opening or closing all lines that are connected in the box. A pilot light 90 indicates whether the various lines are opened or closed.

Referring to FIG. 3, it is seen that flexible conduit 86 is secured on a sleeve 92 which projects downwardly from bottom flange 50. The sleeve is hollow, and the various lines within conduit 86 pass into arm 52. Referring to FIG. 9, it is seen that arm 52 is basically rectangular in cross section, and is hollow. The various lines leading to cuspidor 22 are shown therein. These lines include a vacuum line 94, an electrical line 96, a water line 98 and an air line 100. In addition, as will be explained hereinafter, the cuspidor 22 can be operated either on a natural drain or on a vacuum drain. When it is used on a natural drain, a drain line 102 is included.

Arm 60 and its extension 74 are also hollow, and have the same cross section as arm 52. All of the lines passing through arm 52 pass through arm 60 and up into extension 74, where they are eventually connected to the various components within cuspidor 22, as will be explained hereinafter. Since the various lines are flexible, they will readily adapt to any position of the hinges formed at the ends of arm 52.

The cuspidor is shown in detail in FIGS. 10 and 11. The cuspidor basically comprises a base plate 104 having an upstanding wall 106 and a cover plate 108 having a dependent wall 110. Cover plate 108 includes a circular opening having a down-turned lip 112 therein. Bowl 14 of the cuspidor is positioned within the opening, and a gasket 116 holds the bowl in a watertight condition within cover plate 108. A faucet 118 is provided for filling a cup that is positioned in recess 120 of the cover plate. A push button 122 is used for opening the faucet 118.

Bowl 114 includes a tubular drain 124 at the center thereof. A coiled compression spring 126 is telescoped around drain 124, and bears against the bottom of bowl 114 and against the top of base plate 104. Spring 126 holds the top of bowl 114 in sealing engagement with gasket 116. The cover plate 108 is releasably secured on base plate 104 by any of the conventional means known to the art, such as a snap fit of the cover plate over a resilient plate projecting upwardly from the base plate. Other means, such as nuts, bolts and linking plates can also be used. A drain pipe 128 is telescoped over drain 124 of bowl 114. An O-ring 130 provides a liquid type connection between drain 124 and pipe 130. Pipe 130 includes an L-extension 132.

Water for bowl 114 enters through a pipe 134, and then through a block 136 mounted on the interior of the bowl. A spigot 138 is positioned at the top of block 136 and is pointed downwardly into the bowl. A removable solids collector or strainer 140 is positioned in drain 124 of bowl 114.

An instrument plate 142 is suspended from the bottom of base plate 104 by bars 144. A plurality of notches 146 is formed in instrument plate 142. The purpose of notches 146 is to support various dental in-

struments that are associated with the cuspidor, such as a saliva ejector **148** (FIG. 1), a syringe **150** and a high speed evacuator **152.** Bars **144,** in addition to serving the function of supporting instrument plate **142,** also serve the function of handgrips for moving cuspidor **22** to its desired position.

Referring to FIG. **5,** it is seen that the various lines associated with the support assembly **24** pass through extension **74** into an opening **154** in base plate **104.** Extension **74** supports the cuspidor **22** through the use of brackets **156** which are mounted on the base plate **104.**

The various lines passing through opening **154** are shown in detail in FIG. **12.** Thus, water line **98** passes into a water filter and regulator **158.** From the regulator, a first exit line **160** is provided. Line **160** is coupled with a line **162** through which the water passes to a water heater **164.** A thermostat **166** is associated with the water heater. Current for the water heater is provided through electrical line **96.** The water heater additionally includes a switch **168** and a pilot light **170.**

Heated water leaves heater **164** through line **172.** The water passing through line **172** is connected to syringe **154.** The syringe **154** can be any of the types known to the art, but in the embodiment shown, is a three-way syringe. Thus, it can be used to spray air, water or a combination of air and water.

A second line **174** leaves heater **164** and enters a block **176.** A first line **178** leaving block **176** supplies the water for faucet **118.** The flow of water from the faucet is controlled by push button **122,** which is a part of a valve mechanism.

A second line **180** leaves block **176.** This line is controlled through a valve **182** having an upwardly projecting shaft **184** for opening and closing the valve. Water passing through line **180** is projected into bowl **114** through spigot **138.** A manually operated valve **186** is used to control the rate of flow through spigot **138.** The supply to block **176** for water line **180** is through line **188** which is connected to line **160.**

The water supply lines **180** and **188** described above are used when the bowl **144** is used in connection with a vacuum drain, as will be explained hereinafter. When there is no vacuum drain, and a natural drain is used, the water supply to bowl **144** is continually operated, and there is no intermittent operation through the use of valve **182.** In this case, line **188** and the first portion of line **180** are eliminated, and a line **190** connects line **160** with the latter half of line **180.** When line **190** is used, water is continually fed to bowl **114,** unless valve **186** is closed. Thus, the valve **186** not only controls the rate of flow of the water to the bowl, but also is used to stop all water flow to the bowl. It should also be noted that when line **190** is used, line **188** and the first portion of line **180** are eliminated. Likewise, when line **188** and the first portion of line **180** are used, line **190** is eliminated.

Another water line **192** emanates from water filter and regulator **158.** Water passing through line **192** is used with a hydrocolloid. The hydrocolloid is a conventional device which furnishes chilled water to hardened wax impressions taken in the mouth of the patient. The chilled water for the hydrocolloid can be supplied at the water source for water line **98.**

Line **192** terminates in a quick-disconnect **194.** The hydrocolloid has its inlet line connected to quick-disconnect **194** and its outlet line connected to quick disconnect **196.** The quick-disconnects are well known to the art and in and of themselves, form no part of this invention. The outlet water from the hydrocolloid passes through line **198,** which is in turn connected to the vacuum manifold or natural drain, depending on the drain system being used.

The incoming air, which enters through air line **100,** passes through a filter **200.** It leaves filter **200** through line **202** which connects the air supply with syringe **150.**

Vacuum line **94** passes through opening **154** in base plate **104.** The vacuum line is connected within the cuspidor to a solids collector **204.** A line **206** connects the high speed evacuator **152** with the solids collector **204.** A line **208** connects the saliva ejector **148** with the solids collector **204.** Thus, any solids removed by the saliva ejector or high speed evacuator are removed by solids collector **204** before the liquid and air passing through the line are transmitted to vacuum line **94.**

When the cuspidor **22** is vacuum controlled, actuation for the vacuum system is through the use of bar **210.** Bar **210** is positioned on a bracket **212** which is in turn pivotally mounted on the cuspidor housing, as by pins **214** (one shown in FIG. **12**). Bracket **212** has a hole formed in one leg thereof, and one leg of a U-shaped rod **216** is received in the hole. The lower leg of rod **216** is received in a hole in shaft **218** of a valve **220.**

In using the cuspidor **22** with a vacuum drain, a line **222** is coupled to L-extension **132** (FIG. **11**) of drain pipe **128.** Line **222** is connected to valve **220,** and a line **224** emanates from the valve. Line **224** passes to a vacuum manifold, which is in turn connected with vacuum drain line **94.**

When the cuspidor **22** is used in a natural drain system, lines **222** and **224** and valve **220** are eliminated. Likewise, bar **210** and its associated bracket **212** are also eliminated. The bracket **212** includes a flange **226** which is used for flushing the bowl **114** when the vacuum drain is used. This flange can also be eliminated. Accordingly, when the bowl **114** is connected with the natural drain, drain pipe **102** is connected to L-extension **132** (FIG. **11**) of drain **128.** The material leaving the bowl will flow, by gravity, through the bowl, through drain **128** and out through line **102.**

A piping diagram for the vacuum operated system is shown in FIG. **13.** The operation of the vacuum system can be seen through the use of FIGS. **12** and **13.** When using the vacuum system, any material placed in bowl **114** is not withdrawn from the system until the vacuum is actuated. Thus, if the patient should expectorate the contents of his mouth, as when rinsing, into the bowl **114,** the solids will be retained by strainer **140,** and the liquids will pass into drain **128** (FIG. **11**). Periodically, the system will have to be flushed. The flushing of the system is accomplished by depressing bar **210.**

When the bar **210** is depressed, bracket **212** will be pivoted, thereby raising U-shaped rod **216.** This in turn raises valve shaft **218,** thereby opening valve **220.** Any materials that are in drain **128** pass through line **222,** valve **220** and line **224** into vacuum manifold **228** (FIG. **13**). From the vacuum manifold, the drain materials are evacuated from the system through line **94** by vacuum pump **230** (FIG. **13**).

At the same time the vacuum system is actuated, a water spray passes into bowl **114** through spigot **138** in order to clean the bowl. The actuation for the water spray is through bar **210.** Accordingly, the vacuum sys-

tem and the water spray are actuated simultaneously. When the bar **210** is depressed, flange **226** will also be depressed, thereby depressing shaft **184** of valve **182.** This permits water to flow through line **180** into the bowl **114.**

It is thus seen that no water enters bowl **114** except when bar **210** is depressed. This also actuates the vacuum system at the same time as pointed out above.

The other lines used in the vacuum system are shown in FIG. **13.** These other lines are common to both the vacuum system and the natural drain system, and operate independently of the vacuum system. Thus, water and air are continually supplied to syringe **150,** and the vacuum line **94** used in connection with the high speed evacuator **152** and saliva ejector **148** is always in operation. Likewise, there is a continuous supply of water to valve **122** through line **174.** Solids collector **204** removes any solids brought into the system through the high speed evacuator or saliva ejector. Strainer **140** removes any solids that are placed in the bowl **114.**

It should also be noted in FIG. **13** that the hydrocolloid lines **192** and **198** also operate independently of the vacuum drain for the bowl **114.** The hydrocolloid lines are connected directly to the vacuum manifold, and are independent of the valves **182** and **220** used in connection with the vacuum drain.

FIG. **14** is a piping diagram for the cuspidor when used with a natural drain. A comparison of FIG. **13** to FIG. **14** shows that many of the lines are identical in both systems. Thus, the water and air lines are identical for the syringe **150,** and the lines for the high speed evacuator **152** and saliva ejector **148** are identical in both systems. In the natural drain system, however, the vacuum line to the cuspidor is eliminated, along with its valve. The intermittant valved system for regulating the water supply to the bowl **114** is eliminated, and the actuating bar **110** is eliminated.

In the natural drain system, the water supply to the bowl **114** is constantly flowing through line **190,** and the water volume is regulated by valve **186.** The cuspidor is continuously drained through line **102** which terminates in a natural drain **232.** Likewise, the drain line **198** for the hydrocolloid is connected to drain line **102,** and thus is placed on a natural drain system.

It should be noted that even when the bowl **114** is on a natural drain system, the vacuum line **194** is still used in connection with the high speed evacuator and saliva ejector. However, when the cuspidor is vacuum operated, the natural drain line **102** is eliminated entirely.

The cuspidor of this system is readily adapted for use with either a vacuum drain or a natural drain. The assembly of the cuspidor for either type of system is readily accomplished, and the major portion of the lines going to and emanating from the cuspidor is common to both types of systems. Regardless of the type of system used, the support assembly **24** for the cuspidor need not be modified, with the exception of the fact that natural drain line **102** can be eliminated when the vacuum drain is used.

The cuspidor of this invention is adapted for use with any of the elements generally used by a dentist in the treatment of his patients. By way of example, the high speed evacuator, saliva ejector and syringe have been shown, since these three elements are best adapted for use with the cuspidor. The cuspidor has a self-contained heater and a water supply for rinse water. There is also a water supply for rinsing the bowl **114.**

One unique feature of the cuspidor is the fact that it will be raised and lowered as the patient's chair is raised and lowered, and can be moved to substantially any horizontal position on either side of the chair, thereby rendering it effective for use by either a left-handed or right-handed dentist. Additionally, because of the complete mobility of the cuspidor, it is particularly adapted for use in four handed dentistry. Thus, treatment of a patient's mouth may be carried out by either two dentists or by a dentist and his assistant, such as a oral hygienist.

Since the cuspidor will rise along with the raising of the chair, there is no danger of the chairs hitting the cuspidor when it is raised. In the aforementioned U.S. Pat. No. 3,524,676, it is possible for the chair to hit and damage the cuspidor when the chair is raised, since the movement of the cuspidor is completely independent of the raising and lowering of the chair. In the device of this invention, the vertical position of the cuspidor need not be adjusted as the chair is raised or lowered.

Without further elaboration, the foregoing will so fully illustrate our invention that others may, by applying current or future knowledge, readily adapt the same for use under various conditions of service.

What is claimed as the invention is:

1. A water flush cuspidor assembly comprising a cuspidor and a support assembly for said cuspidor, said support assembly being adapted to be rotatably mounted on the seat plate of a dental chair, whereby the raising or lowering of the chair will raise or lower the support assembly, said support assembly comprising a first arm and a second arm, said first arm being rotatably secured at one end to means for mounting said support assembly on said seat plate, said first arm being rotatably secured to said second arm at its other end, said first arm being rotatable around a vertical axis at said mounting means, said second arm being rotatable around a vertical axis with respect to said first arm,said arms, in combination, having a horizontal dimension and a vertical dimension, said horizontal dimension being sufficiently great to permit the water flush cuspidor assembly to be rotated from the left side to the right side of the dental chair without any interference from the chair, and said vertical dimension being sufficiently great to position the cuspidor at a convenient height for a patient sitting in the chair, whereby said support assembly can be pivotally moved to vary the horizontal location of said cuspidor.

2. The water flush cuspidor assembly of claim **1** and further including a water line passing through said arms and to said cuspidor.

3. The water flush cuspidor assembly of claim **1** wherein said second arm includes an upwardly inclined extension, said cuspidor being secured on said extension.

4. The water flush cuspidor assembly of claim **1** wherein said arms are hollow, said support assembly further including a water line and a vacuum line passing through said arms and to said cuspidor.

5. The water flush cuspidor assembly of claim **4** and further including an electrical line passing through said arms and to said cuspidor, said electrical line being connected to a water heater in said cuspidor.

6. The water flush cuspidor assembly of claim **4** and further including an air line passing through said arms and to said cuspidor, said air line being connected to a syringe held by said cuspidor.

7. The water flush cuspidor assembly of claim 4 and further including a drain line passing through said arms and to said cuspidor, said drain line being connected to the drain of a bowl in said cuspidor.

8. The water flush cuspidor assembly of claim 1 wherein said cuspidor comprises a base plate and a cover plate, a bowl positioned in said cover plate to accept material expectorated by a patient, a support arm mounted on said base plate, said support arm including a bar spaced from said base plate, said bar having notches therein for securement of dental equipment.

9. The water flush cuspidor assembly of claim 8 wherein one of said notches contains a saliva ejector, another of said notches contains a high speed evacuator and a third of said notches contains a syringe, with the air, vacuum and water supplies for the dental equipment passing through said support assembly and to said cuspidor.

10. The water flush cuspidor assembly of claim 1 wherein said cuspidor comprises a base plate and a cover plate, said cover plate having a bowl formed therein for reception of the material expectorated by a patient, means for supplying rinse water to said bowl, and a faucet mounted on said cuspidor, said faucet being adapted to furnish rinse water for a patient, with the water supply for said cuspidor passing through said support assembly.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,771,226 Dated Nov. 13, 1973

Inventor(s) Nathaniel H. Lieb et al.

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

On the Title Page, the name of the Assignee in item [73] "Syndent Corporation" should read -- Star Dental Manufacturing Co., Inc. --.

Signed and sealed this 1st day of April 1975.

(SEAL)
Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents
and Trademarks

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