Aug. 6, 1968 C. P. SMITH 3,395,500

TREATMENT ROOM CONSTRUCTION FOR DENTAL OFFICES

Filed Aug. 10, 1966 2 Sheets-Sheet 1

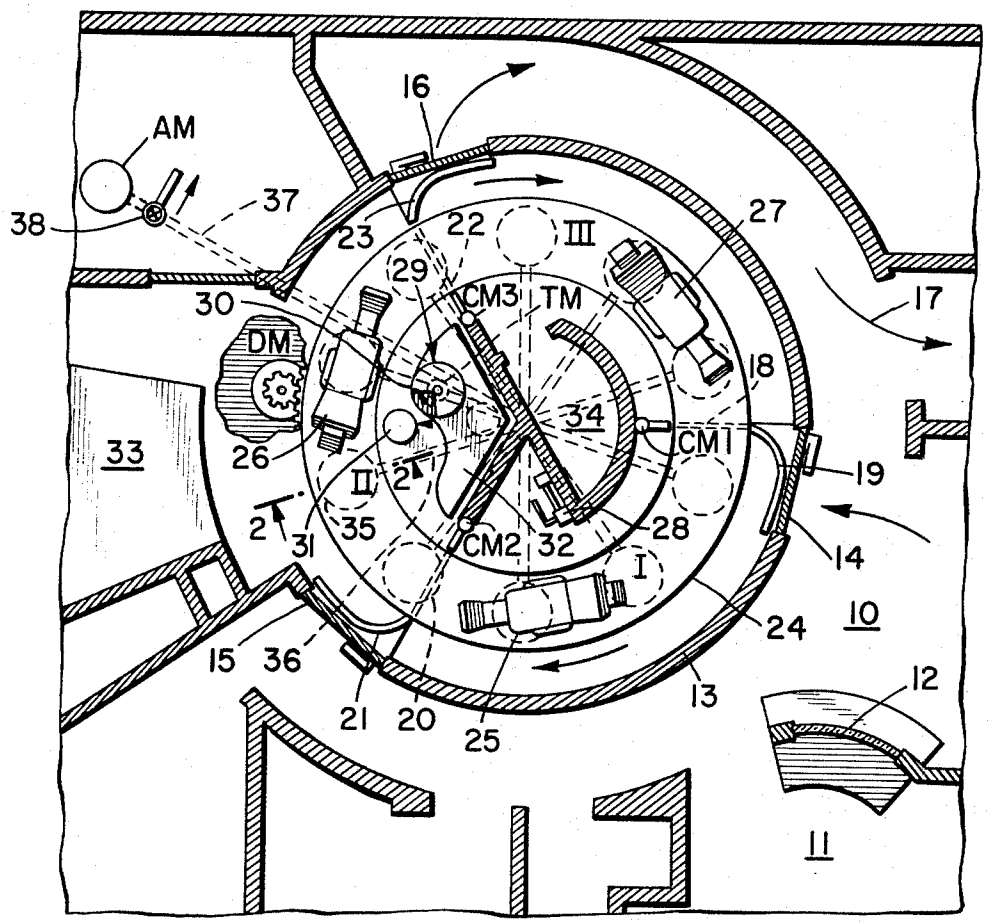


FIG. 1.

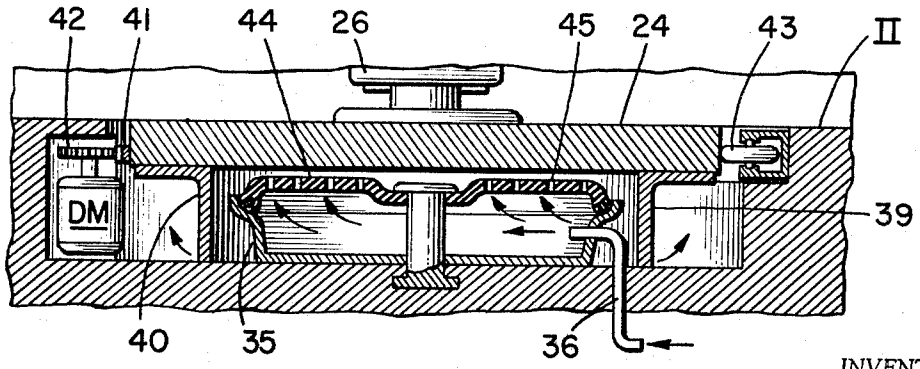


FIG. 2.

INVENTOR.
C. PERRY SMITH

BY

Elliott & Pastoriza

ATTORNEYS

TREATMENT ROOM CONSTRUCTION FOR DENTAL OFFICES

Filed Aug. 10, 1966 2 Sheets-Sheet 2

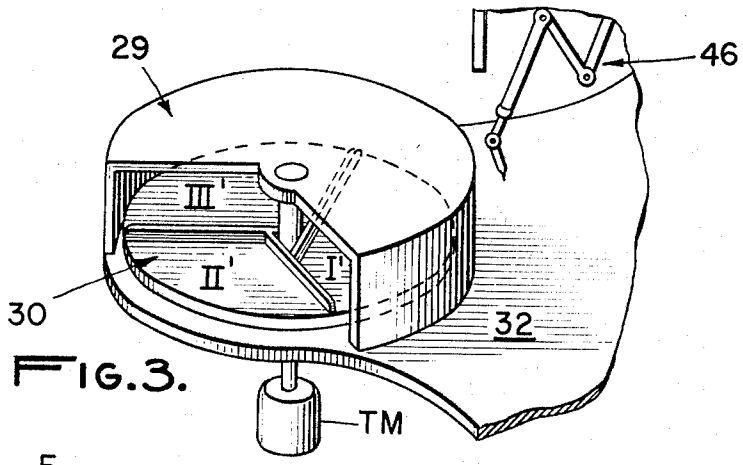


FIG. 3.

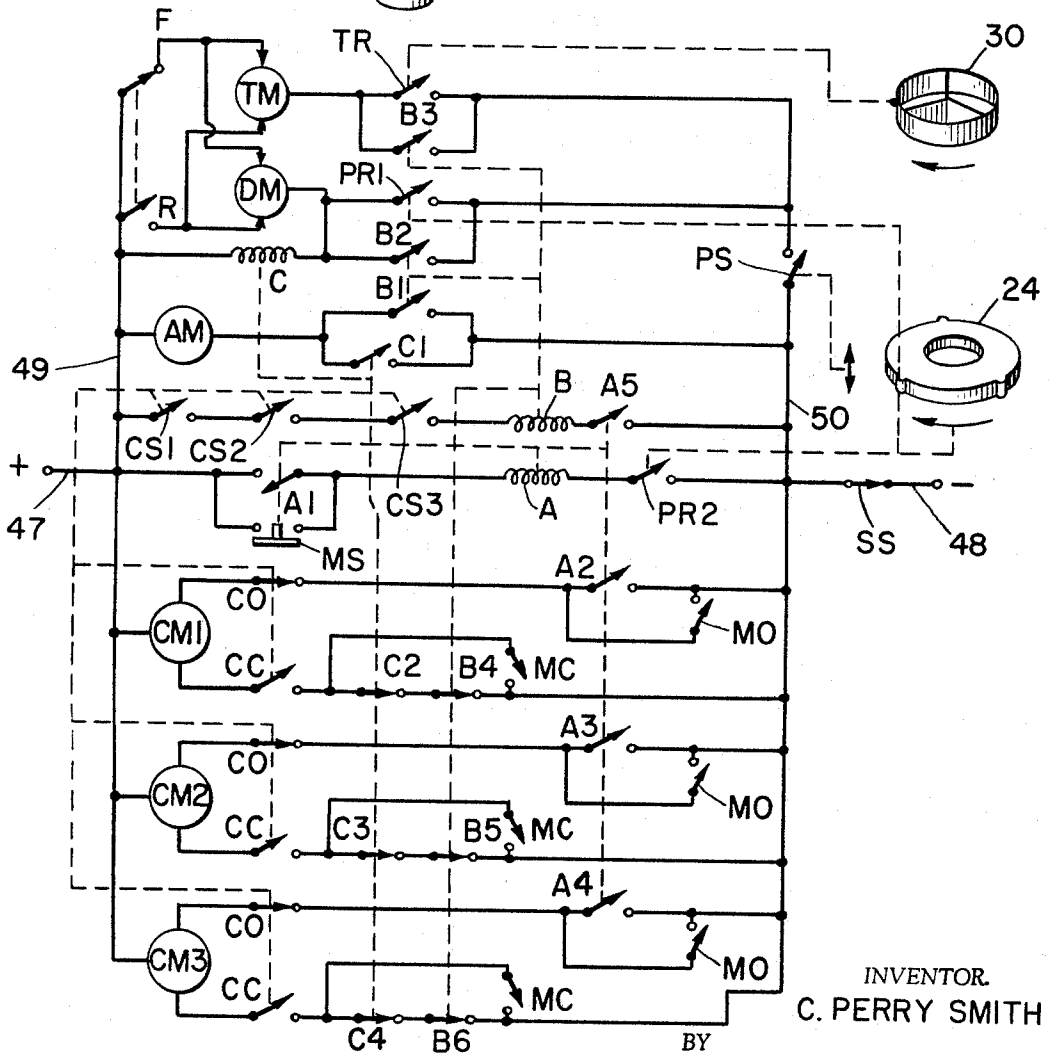


FIG. 4.

INVENTOR.
C. PERRY SMITH

BY

Elliott & Pastoriza
ATTORNEYS

United States Patent Office

3,395,500

Patented Aug. 6, 1968

3,395,500

TERATMENT ROOM CONSTRUCTION FOR DENTAL OFFICES

Cannon Perry Smith, 1350 Gonzales Road, Oxnard, Calif. 93030

Filed Aug. 10, 1966, Ser. No. 571,584
8 Claims. (Cl. 52—29)

ABSTRACT OF THE DISCLOSURE

A dental office floor plan is provided including a revolving circular platform which supports patients seated in three dental chairs on various portions of the platform. Rotation of the platform brings the patients to the operative area so that only one operatory is needed rather than the usual three separate rooms for the patients. Suitable curtains or collapsible walls radially extend over portions of the circular platform and can be closed and opened to separate the three patients involved. The platform is rotated upon complete opening of the curtains to move a patient from one room to the other and after the platform has been rotated through the necessary arcuate distance, the curtains are closed.

This invention relates generally to the design and construction of treatment areas and more particularly to a novel treatment room construction for use in dental offices.

While a preferred embodiment of the invention will be described in conjunction with dental offices, it is to be understood that the construction involved is applicable to other professional type offices in which a number of patients are to be treated.

The nature of professional dental practise is such that many procedures once begun on a patient are followed by a waiting period. For example, after an anaesthetic is administered, several minutes must elapse before the next step in an operative procedure such as debriment and suture of a wound, removal of a tooth, and so forth. This time is lost to the dentist unless he has provided another room with another set of instruments and equipment in which another patient has been previously seated and readied for treatment. It is for this reason that the modern professional or dental office provides, in addition to a reception room, business office, laboratory, and so forth, two or more operatory or treatment rooms.

The provision of two or more operatory rooms not only necessitates the purchase of duplicate equipment, but results in the inefficient travel from one room to another by the dentist and his auxiliary personnel throughout the day. Moreover, the continual re-orientation of the mind that must take place by those who constantly change work locations can become exhaustive.

With the foregoing considerations in mind, it is a primary object of the present invention to provide a novel dental office design and treatment room construction which, first, relieves the present inefficient arrangement of equipment; second, corrects the cumbersome flow of intra-office traffic; and, third, eliminates the duplication of equipment used in the office, all to the end that the foregoing problems are overcome.

Briefly, this and many other objects and advantages of this invention are attained by providing a treatment area including an enlarged enclosure incorporating movable curtain means dividing the enclosure into separate rooms when closed. A circular platform substantially co-planar with the floor of the enclosure is provided and is of a size such that portions of the platform extend into each of the rooms, each of these portions in turn supporting a dental chair. One of the rooms constitutes an operative room for a single set of dental implements such as drilling equipment and the like, and another of the rooms, in the case of only two rooms, constitutes a waiting room.

A platform drive means is provided and is under control of the dentist or operator such that the platform may be rotated to move the dental chair in a waiting room into the operative room. By this arrangement, a patient may be seated in the waiting room and pre-treated and then moved into the operative room by opening the curtain means and rotating the platform. While this patient is being treated in the operative room, a next patient may be received in the waiting room and prepared for subsequent treatment.

Preferably, the curtain means divides the enclosure into three rooms so that a dentist may effectively work on three patients at one time without having to move himself or any of his equipment from the one operative room.

In addition to the above, the invention contemplates the provision of a rotatable tray defining tray sections mounted in the operative room in a convenient position for use by the dentist. The tray sections are arranged to be successively exposed upon rotation of the tray, this latter rotation being synchronized with rotation of the platform. Thus, a set of instruments will be positioned for use by the dentist for one patient in one room when that patient is moved to the operative room and another set of instruments on another tray section will be positioned for use by the dentist automatically when another patient is moved into the operative room. This arrangement avoids the necessity of re-sterilizing instruments whenever a patient is moved from one room to another.

The advantages of the foregoing arrangement will be evident. The existence of only one treatment or operatory room makes for far more efficient management of the operative procedure. All equipment and tools used can have one permanent location and all are easily accessible to the operator or dentist. The dentist has only one area to be concerned about and his orientation to his working area remains constant throughout the day. Not only is intra- and interoffice traffic flow greatly simplified, but a considerable amount of time is saved on both the dentist's part and that of the patient. Further, the need for duplication of equipment in other rooms, which is extremely costly, is wholly eliminated.

A better understanding of the invention as used in dental offices will be had by now referring to one embodiment thereof as illustrated in the accompanying drawings, in which:

FIGURE 1 is a fragmentary plan view of a treatment area in a dental office floor plan construction in accordance with the present invention;

FIGURE 2 is an enlarged fragmentary cross-section of a portion of the construction taken in the direction of the arrows 2—2 of FIGURE 1;

FIGURE 3 is a fragmentary perspective view of a portion of the equipment incorporated in the treatment area of FIGURE 1; and,

FIGURE 4 is an electrical ladder diagram useful in explaining suitable control means for operating the system shown in FIGURES 1, 2, and 3.

Referring first to FIGURE 1 there is shown in the right portion of the drawing an entrance area or reception room **10**. A receptionist or nurse may be located in an area **11** for greeting incoming patients through a suitable transparent partition **12**.

In the central area of the dental office there is provided an enclosure defined generally by a circular peripheral wall **13** provided, in the particular embodiment disclosed, with three entrance doors **14**, **15**, and **16**. These doors, as shown, are spaced approximately one hundred and twenty degrees and provide ingress and egress to enclosed

areas within the wall **13**. An exit hallway is indicated by the arrow **17** for the dental office.

Within the enclosure **13** there are provided curtain means in the form of three individual curtains arranged to extend from a central portion of the area radially outwardly towards the pehipheral wall **13** defining the enclosure. The first of these curtain means is illustrated as a curtain **18** arranged to slide on a suitable overhead or ceiling track **19** suitably curved trangentially to lie close to the interior surface of the enclosing peripheral wall. A second curtain is shown at **20** having a similar cooperating overhead ceiling track **21**, and a third curtain is shown at **22** having a similar overhead ceiling track **23**. It will be noted that the ceiling tracks are so disposed that when the curtains are opened by being guided into tangential relationship with the wall they block the entrances through the doors **14, 15**, and **16** respectively. The purpose for this particular design will become evident as the description proceeds.

When the various curtains **18, 20**, and **22**, are closed, it will be noted that they define with other central partitions three separate rooms designated I, II, and III, each having arcuate extents of approximately one hundred and twenty degrees.

As shown in FIGURE 1, there is further included within the treatment enclosure **13** a circular platform **24** substantially co-planar with the floor of the treatment area. The diameter of the circular platform **24** is such that portions of the platform extend into each of the rooms defined by the various curtains when they are closed. These portions serve to support dental chairs indicated at **25, 26** and **27**, respectively.

The first room I may include suitable pre-operative equipment such as an X-ray machine **28**.

The second room II, in the particular embodiment disclosed, constitutes an operative room including a tray cabinet **29** supporting a rotatable tray **30**. This tray is disposed in a convenient position for a dentist or operator who may use a stool **31** normally disposed under a treatment counter **32** as indicated by the dotted line. Above the counter **32** there is included an overhead cabinet structure housing suitable dental equipment such as a dental drill, suction equipment, and other conventional dental devices. Across the rotatable platform in the same room II there may be provided shelf space **33** and access to a suitable laboratory. Thus, the operative room II will include all of the operative equipment normally used by a dentist and only one piece or set of such equipment is necessary. It will be evident that the arrangement is such that when the dentist sits on the stool **31** he is in a convenient position for treating a patient on the dental chair **26**.

The third room III may constitute a post-operative room or waiting room and includes, for example, a dark room **34**.

The various curtains **18, 20**, and **22**, are arranged to move between opened and closed positions by suitable curtain drive means in the form of curtain motors designated CM1, CM2, and CM3, respectively. The circular platform **24**, in turn, is arranged to be rotated by a suitable platform drive means including a drive motor DM shown in a broken away portion engaging the periphery of the platform.

To provide an ideal bearing for accommodating various loads on the platform, there are provided means for "floating" the platform on a cushion of air. These means take the form of suitable air confining pads beneath the platform in positions indicated by the dotted lines **35**, there being provided in the embodiment disclosed, ten such pads circumferentially distributed as shown. As will become clearer as the description proceeds, the various air confining pads are arranged to receive air under pressure through suitable conduits such as indicated at **36** fed by a common conduit **37** passing through an exhaust valve **38** to connect to an air motor AM as shown in the upper left hand portion of the drawing. The design is such that operation of the air motor will force air into the various pads constituting the air confining means to effectively raise the platform **24** a short distance, such as ½ to ¾ inch, thereby "flowing" the same on a cushion of air so that the drive motor DM may easily rotate the platform through any desired angular distance.

The various air confining pads such as indicated at **35** in FIGURE 1 are all identical and therefore a more detailed description of one will suffice for all. Thus, with particular reference to the fragmentary cross-section of FIGURE 2, it will be noted that the circular platform **24** includes about its bottom marginal edges suitable angle irons **39** and **40** which serve to support the platform **24** when it is flushed with the surface of the floor area of the treatment room II. The platform **24**, as illustrated in FIGURE 2 is driven by the drive motor DM, by means of a circular gear **41** on the outside edge of the platform, coupled to a spur gear **42** connected to the drive motor. The circular platform **24** itself is held in concentric relationship by suitable rollers, such as indicated at **43**, there being provided three such rollers at about one hundred and twenty degree intervals mounted to engage the inner edge of platform **24** and thus guide it in its rotational movement.

As shown in FIGURE 2, the air confining lift pad **35** includes a flexible top diaphragm **44** provided with a plurality of small openings **45**. The enclosed volume defined by the diaphragm **44** and the pad **35** receives compressed air from the conduit **36** as shown. This air is entrapped between the sides of the angle irons **39** and **40** and the underside of the platform **24** such that pressure is built up under the platform to raise the platform on a cushion of air. The air escapes slowly under the angle iron flanges **39** and **40** when the platform is raised. By using approximately ten such confining air pads **35**, it is found that the platform may easily be raised on a cushion of air for rotation by the drive motor DM even when all three dental chairs are occupied by patients.

FIGURE 3 illustrates in fragmentary perspective view the tray housing **29** and tray **30** described in FIGURE 1 as mounted on the equipment counter **32** in convenient position for use by the dentist. As illustrated in FIGURE 3, the tray **30** defines three tray sections designated I', II', and III'. The tray is arranged to be rotated by a tray drive means in he form of a tray motor TM as shown in FIGURE 3. This tray motor is wired for simultaneous operation with the drive motor TM for the rotary platform such that the tray II' will be in an exposed convenient position for supporting instruments to be used on a patient seated in the chair **26** of FIGURE 1. When the platform is rotated through approximately one hundred and twenty degrees to bring, for example, the chair **25** of FIGURE 1 from the room I to the operative room II, the tray structure **30** is automatically rotated to bring the tray section I' into position formerly occupied by the tray section II'. Similarly, a further rotation of the table to bring the dental chair **27** into the room II results in the tray section III' being moved into postion for use.

Other dental equipment such as the conventional dental drill and so forth may be disposed, as described heretofore, in an overhead cabinet above the treating counter **32** such as indicated in fragmentary form at **46** in FIGURE 3.

With the description of the treatment area deascribed thus far in mind, the manner in which the same operates to increase efficiency will become evident. Thus, with reference once again to FIGURE 1, a patient entering the reception room **10** may immediately be seated in the dental chair **25** by being escorted through the door **14**. At this point, the various curtains **18, 20**, and **22** are all closed so that privacy is afforded the patient when he is seated in the room I. The patient may then be suitably treated preparatory to operative or other type treatment

in the operative room II by a nurse or suitable personnel in the room I. For example, X-rays may be taken as by X-ray equipment **28**.

When the dentist in the operative room II is ready to receive the patient in the dental chair **25**, he will actuate a suitable control means which may be housed beneath the equipment counter **32** which will automatically effect opening of the various curtains **18**, **20**, and **22** by means of the curtain motors CM1, CM2, and CM3. Opening of these curtains will automatically eclipse the various doors **14**, **15**, and **16** so that no one can enter or leave the various rooms when the curtains are open. The control means includes means responsive to complete opening of the curtains for energizing the air motor AM. Energization of the air motor will then raise the platform to float the platform on a cushion of air. The control means also include suitable means responsive to raising of the platform for starting the drive motor DM thereby rotating the platform **24** to bring the patient in the dental chair **25** to the position formerly occupied by the dental chair **26**. Any patient in the dental chair **26** is transported to the room III to occupy the position formerly occupied by the dental chair **27**.

The conrtol means is so designed as to provide for automatic stopping of the platform after it has rotated through one hundred and twenty degrees. The same equipment provides for automatic lowering of the platform by de-energization of the air motor and for automatic closure of the various curtains, if desired. When all of the curtains are closed, there is again afforded privacy between the three rooms and the dentist or other operator may then treat the patient received in the room II. During this teratment, another patient may be received in room I and suitable pre-operative treatment afforded this patient. Any patient in the room III may be subject to suitable post-operative treatment or waiting preparatory to again being returned to room II. In this respect, the platform **24** is designed to be rotated in either clockwise or counterclockwise directions. When a patient's treatment is completed, he will ordinarily be moved to the room III where he may readily exit through the door **16** and exit passageway **17**.

It will thus be understood that a smooth circular type traffic flow is provided without any cumbersome intra-room or office traffic. The dentist or other operator may treat up to three patients substantially simultaneously, the doctor actively operating on one patient during any waiting period required of another for an anaesthetic to take effect or other treatment to be completed.

The manner in which all of the foregoing opeartions by the control means are carried out will now become clear by referring to the control circuit illustrated in FIGURE 4.

As shown to the left and right respectively of the ladder diagram of FIGURE 4 there are provided input power terminal leads **47** and **48** which may receive D.C. from a conventional rectifier connected to a 110 volt 60 cycle electrical power source. This power is applied to power lines **49** and **50** defining each side of the electrical circuit ladder diagram. A suitable safety switch SS may be provided in the input power terminal lead **48** as shown. Opening of this switch will de-energize all of the equipment illustrated in the ladder diagram. This switch, however, is normally closed.

Referring to the upper left portion of the diagram, there is shown a forward and reverse switch F and R which may be set in the forward position as shown or switched to the reverse position as shown. When in the forward position, the field windings of the tray motor TM and the drive motor DM are connected for energization from power on the line **49** and when the switches F and R are thrown such that the reverse switch R is closed and the forward switch F is open, the power on the line **49** is applied to the field windings in a reverse direction to reverse the direction of the motors TM and DM. The other side of these respective motors connect through microswitches TR and PR1 respectively to the other power line **50**. These microswitches are arranged to be operated, respectively, upon rotation of the tray **30** and the platform **24**, these latter components being illustrated schematically to the right of the ladder diagram. As shown, the switches are paralleled by relay switches B3 and B2 respectively, a relay coil C being connected between the switch B2 and the power line **49**.

The air motor AM described in FIGURE 1 is shown to the left in FIGURE 4 and connects through relay switches B1 and C1 in parallel to the line **50**. The line **50** inself is provided with a platform switch PS which, when open, isolates the tray motor and drive motor from power applied to the line **50**. This platform switch is arranged to be closed upon raising of the platform **24** and opened upon dropping of the platform **24** as indicated by the dotted lines and schematic showing of the platform **24**.

Following down the ladder diagram there are shown a plurality of curtain microswitches CS1, CS2, and CS3, all in series with a relay coil B and a relay switch A5, the other side of which connects to the power line **50**. Below this circuit is included a push button master switch MS arranged to be shunted by a relay switch A1 in series with a relay coil A and a second rotary platform microswitch PR2. Below these components, there are provided the curtain motors CM1, CM2, and CM3 arranged to be operated in forward or reverse directions depending upon the current flow direction through their field windings. Thus, the upper connections to the windings are arranged to be energized through a curtain open microswitch CO in series with a relay switch A2 connecting to the power line **50**. The lower side of the field winding for a reverse movement of the motor CM1 is arranged to be energized by a curtain close switch CC and relay switches C2 and B4 in series therewith connected to the power line **50**. The relay switches A2, C2, and B4 in series are shunted by suitable manually operable over-ride switches to open and close the curtains, these switches being designated MO and MC respectively. The field winding connections to the motors CM2 and CM3 are similar to those for CM1 as indicated in FIGURE 4, the microswitches corresponding to A2 and C2 and B4 in series being designated A3, A4, and C3–B5, C4–B6 respectively.

The relay coils A, B, and C when energized actuate their respective associated switches designated by the letters A, B and C followed by a numeral identifying the individual switches. Thus, when the relay coil A is energized, the switches A1, A2, A3, A4 and A5 will all be closed and when the relay coil A is de-energized, these switches will all open. Similarly, when the relay coil B is energized, the switches B1, B2, and B3 will be closed and the switches B4, B5, and B6 opened; and when the relay coil B is de-energized, the switches B1, B2 and B3 will open and the switches B4, B5, and B6 will close. When the relay coil C is energized, the switch C1 will close and switches C2, C3, and C4 will open and when the relay coil C is de-energized, the relay switch C1 will open and the switches C2, C3, and C4 will close.

With the foregoing description of the various components of the control circuit diagram in mind, its operation will now be described. Assume first that the dentist has finished a treatment on a patient in the dental chair **26** in room II as described in FIGURE 1 and he now wishes to transport a patient in dental chair **25** from the room I to the room II and transport the patient in room II to room III.

When the platform **24** is stationary, the various curtains are closed to provide privacy for the respective patients in the dental chairs. It is thus necessary to open these curtains before the platform **24** can be rotated to effect the desired movement of the patient.

Referring to the central portion of FIGURE 4, the dentist or other operator will first press the master switch button MS. With the platform **24** in its down or stationary position, the platform rotary microswitch PR2 is closed as shown in FIGURE 4 so that pressing of the master switch button MS energizes relay coil A by connecting the same across the power leads **49** and **50**. Energization of the relay coil A will close the relay switch A1 thereby holding the relay coil A energized even though the master switch push button MS is released. Also, the relay switches A2, A3 and A4 will close. Closing of these latter switches will energize the curtain motors CM1, CM2, and CM3 through the curtain open switches CO respectively so that these motors will operate to open the curtains simultaneously. When the curtains reach an open position, the microswitches CS1, CS2, and CS3 are respectively engaged by the curtains and moved to closed positions. This action results in energization of the relay coil B since the switch A5 is now being held closed by the relay coil A.

Energization of the relay coil B will then immediately close the switches B1, B2, and B3 and open the switches B4, B5, and B6. Upon complete opening of the curtains, the curtain close microswitches CC will close but the curtain motors will not be energized in view of the automatic opening of the switches B4, B5, and B6.

Energization of the relay coil B to close microswitches B2 and B3 will not affect the drive motor or tray motor DM and TM since the platform switch PS in the power line **50** is open. Closing of the microswitch B1 however, will energize the air motor AM and thus the platform **24** will be raised as a consequence of the air pressure passed into the various confining pads as described in conjunction with FIGURES 1 and 2.

When the platform **24** is raised, it will then engage the platform switch PS in the power line **50** to close the same. With the switch now closed, the tray motor and drive motor TM and DM will be simultaneously energized through the closed microswitches B3 and B2, respectively.

Energization of the drive motor DM will rotate the platform and upon rotation of the platform the platform rotary switch PR1 will move off of a suitable projection to assume a closed position. This will only occur after the platform has been rotated slightly to permit the microswitch to close.

Similarly, the tray motor TM will also simultaneously rotate upon closing of the platform switch PS and the tray **30** itself includes a suitable peripheral projection which will permit the tray rotary switch TR to close only after a slight rotative movement of the tray **30**.

Finally, closing of the platform switch PS to energize the tray motor and drive motor will also energize the relay coil C through the closed relay switch B2 to thereby close the switch C1 and thus maintain power across the air motor AM. At this time switches C2, C3, and C4 open.

It will be noted that the platform rotary switch PR2 is opened substantially simultaneously with the closing of the platform switch PR1 by tying these switches together as shown. In other words, after an initial rotary movement of the platform **24** resulting in the closing of the switch PR1, the switch PR2 in series with the relay coil A opens. As a consequence, the relay coil A is de-energized so that the switches A2, A3, A4, and A5 all open.

Opening of the relay switch A5 de-energizes the relay coil B so that the switches B1, B2, and B3 will all open and the switches B4, B5, and B6 will close. However, the tray motor and drive motor will still be energized through the now closed switches TR and PR1 and the air motor will continue to be energized since the relay coil C is still energized through the closed switch C1. Opening of switches C2, C3, and C4 prevents operation of the curtain motors when B4, B5, and B6 close.

Under the foregoing conditions, the platform will thus continue to rotate until it has moved approximately one hundred and twenty degrees. At this point, there is provided on the platform another projection which functions to open the microswitch PR1 and similarly, the rotating tray **30** includes another projection spaced one hundred and twenty degrees from the first mentioned projection for opening the microswitch TR. Thus, when the rotary platform and tray reach their new positions after moving through approximately an angular distance of one hundred and twenty degrees, the drive motor DM and tray motor TM are de-energized. Also, the relay coil C is de-energized upon opening of PR1 resulting in opening of the switch C1 to thereby de-energize the air motor. Switches C2, C3, and C4 now close and since the switches CC are closed when the curtains are open, the curtain motors will be energized in a reverse direction to close the curtains. When the curtains close, the switches CS1, CS2 and CS3 open and the switches CC and CO close.

Also, upon de-energization of the air motor AM, the platform **24** will lower itself under its own weight and thereby result in opening of the platform switch PS in the platform **50**. All of the various switches will then be in their original positions as shown in FIGURE 4.

The dentist or other operator may now treat the new patient that has been moved by the rotary platform. After suitable treatment, when he again desires to rotate the platform through another one hundred and twenty degrees to bring in another patient or to bring back the first patient, he will again simply depress the master switch MS and the cycle of operations described heretofore will simply be repeated. This cycle of operations will be the same when the forward and reverse switch is thrown to the reverse position except that the platform **24** and tray **30** will rotate in opposite directions.

In the event the dentist or operator wishes to open or close any one or more of the curtains without rotating the platform or tray, he may readily do so by operating the shunting manual override switches MO or MC for any one of the curtains. Preferably these manually operable switches are spring loaded so that they must be held in closed position in order to remain closed so that release of the switches will result in their opening. By such an arrangement, the operator or dentist may open the curtains to any desired degree he desires.

In the event of any serious malfunctioning, the safety switch SS in the power input lead **48** may be opened to de-energize all of the various components as described.

From the foregoing description, it will be evident that the present invention has provided a greatly improved treatment room construction for dental offices in which the various objects set forth heretofore are fully realized.

While the partitions defining the various rooms in the enclosure have been defined as curtains or curtain means, the term "curtain" or "curtain means" is meant to embody any equivalent partition type movable structure, such as accordian type panels and the like, or even a curved solid integral wall section suitably guided by the curved tracks for movement, or suitable doors mounted for conventional swinging.

Further, while the air motor AM has been described in FIGURE 4 as being directly energized and de-energized, the air motor may be continuously operated and the air flow controlled by an electrically operated solenoid valve such as the exhaust valve **38** described in FIGURE 1. In this case, the electrical connection in FIGURE 4 would be to the valve rather than the air motor AM and energization of the valve would close the exhaust so that air from the motor would pass to the pads. De-energization of the valve would simply open the exhaust to let the air escape from the various pads.

The invention accordingly is not to be thought of as limited to particular components or circuit elements set forth by way of example.

What is claimed is:

1. A treatment area including: an enclosure having movable curtain means defining separate rooms when closed; a rotatable platform having portions extending into each of said rooms; curtain drive means for moving

said curtain means between open and closed positions; platform drive means for rotating said platform; and control means for actuating said curtain means from closed to open position and including means for automatically rotating said platform in response to complete opening of said curtain means through an angular distance sufficient to reposition the portion of said platform in one room to another of said rooms, whereby a person to be treated may be moved by said platform from one room to another room.

2. The subject matter of claim 1, including a rotatable tray defining tray sections mounted in one of said rooms, said control means including means for automatically rotating said trap through an angular distance corresponding to the angular distance through which said platform moves whereby a person in said one room may be treated with instruments on one of said tray sections and movement of another person in another room to said one room rotates said tray to position another of said tray sections for supporting instruments to be used in treating said another person into the position formerly occupied by said one of said tray sections.

3. In a dental office, a treatment area including: an enlarged enclosure; movable curtain means dividing said enclosure into separate rooms when closed; a circular platform substantially co-planar with the floor of said enclosure having portions extending into each of said rooms for respectively supporting dental chairs, one of said rooms constituting an operative room for dental equipment and another of said rooms constituting a waiting room; a rotatable tray defining tray sections mounted in said operative room; curtain drive means for moving said curtain means between open and closed positions; platform drive means for rotating said platform; tray drive means for rotating said tray; and control means for operation by a dentist for energizing said curtain drive means, said platform drive means, and said tray drive means whereby a patient may be seated in said waiting room and then moved into said operative room by opening said curtain means and rotating said platform, and while said patient is being treated in said operative room, a next patient may be received in said waiting room, one section of said tray means being automatically rotated into position for use when one patient is in said operative room and another section of said tray means being rotated into position for use when another patient is in said operative room.

4. The subject matter of claim 3, in which said platform drive means and tray means are intercoupled such that said tray drive means rotates said tray simultaneously with and through the same angular distance as said platform is rotated by said platform drive means.

5. The subject matter of claim 3, in which said curtain means comprises three curtains adapted to extend from a central area in said enclosure generally radially outwardly to the peripheral wall of said enclosure such that each room defined by said curtain means has an arcuate extent of approximately one hundred and twenty degrees.

6. The subject matter of claim 3, in which said platform drive means includes: air confining means under said platform; an air motor for increasing the air pressure in said confining means to raise said platform on a cushion of air; and a drive motor coupled to rotate said platform upon energization, said control means including first platform switch means automatically responsive to raising of said platform upon energization of said air motor to energize said drive motor to rotate said platform, and second platform switch means responsive to rotation of said platform through a given distance sufficient to transport a patient from one room to another room to automatically de-energize said drive motor and de-energize said air motor.

7. The subject matter of claim 6, in which said control means further includes a master control switch operable by a dentist to actuate said curtain drive means; and curtain switch means responsoive to opening of said curtain means to automatically energize said air motor.

8. The subject matter of claim 7, in which said control means further includes manual over-ride switch means for actuating said curtain drive means independently of the other components of said control means.

References Cited

UNITED STATES PATENTS

479,001	7/1892	Gutierrez	52—237 X
2,764,783	10/1956	Teller	52—65
3,078,522	2/1963	Anderson	52—65 X
3,115,684	12/1963	Joy	52—237 X

JOHN E. MURTAGH, *Primary Examiner.*