

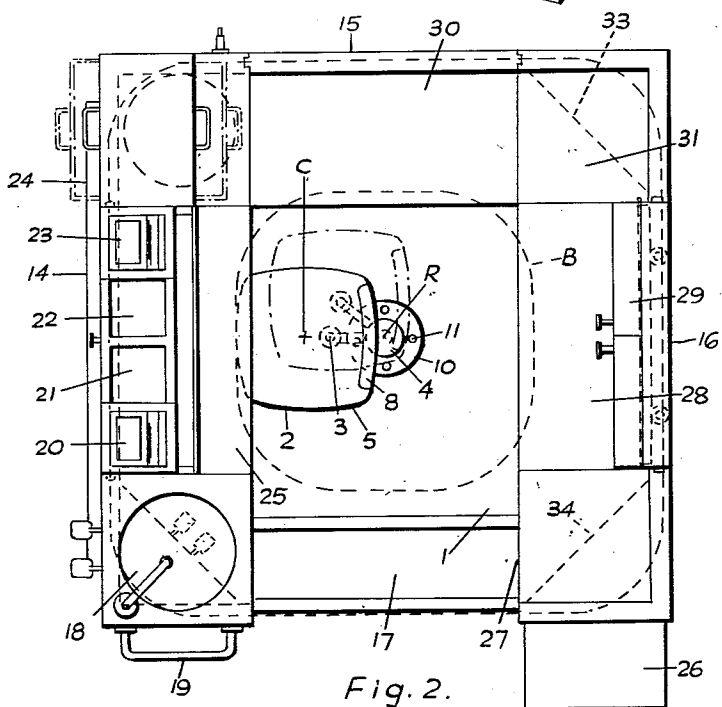
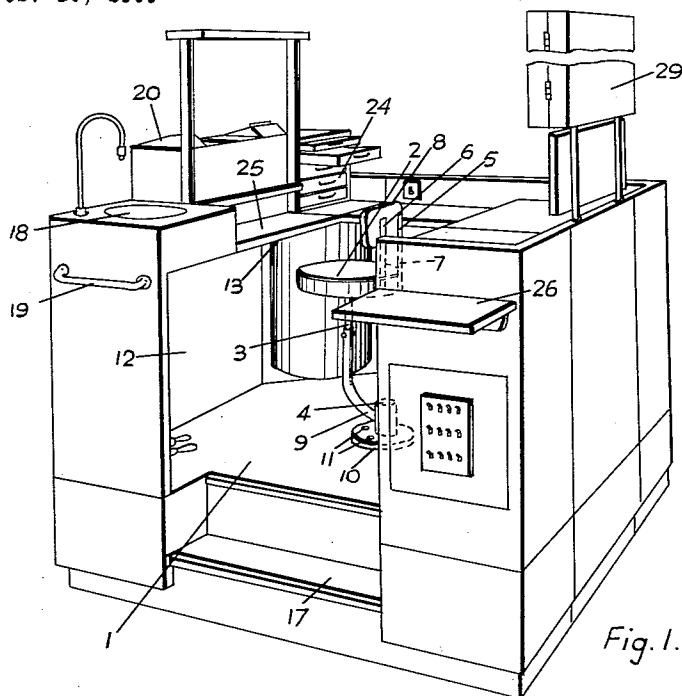
Nov. 28, 1961

P. J. DOHERTY
WORKROOM FURNITURE

3,010,774

Filed Feb. 10, 1959

3 Sheets-Sheet 1



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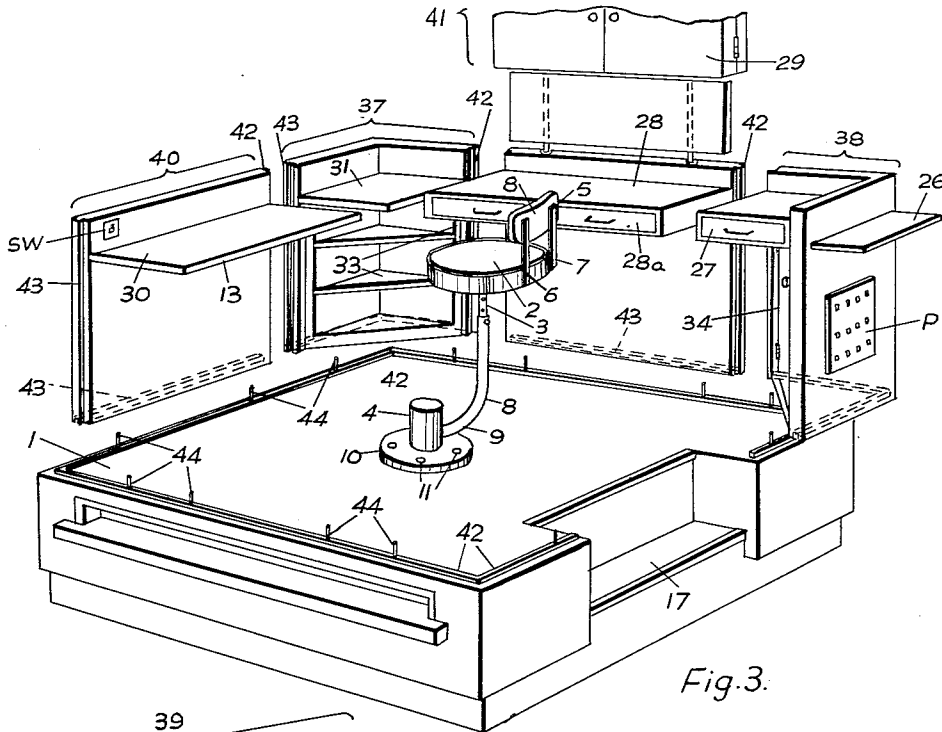


Fig. 3.

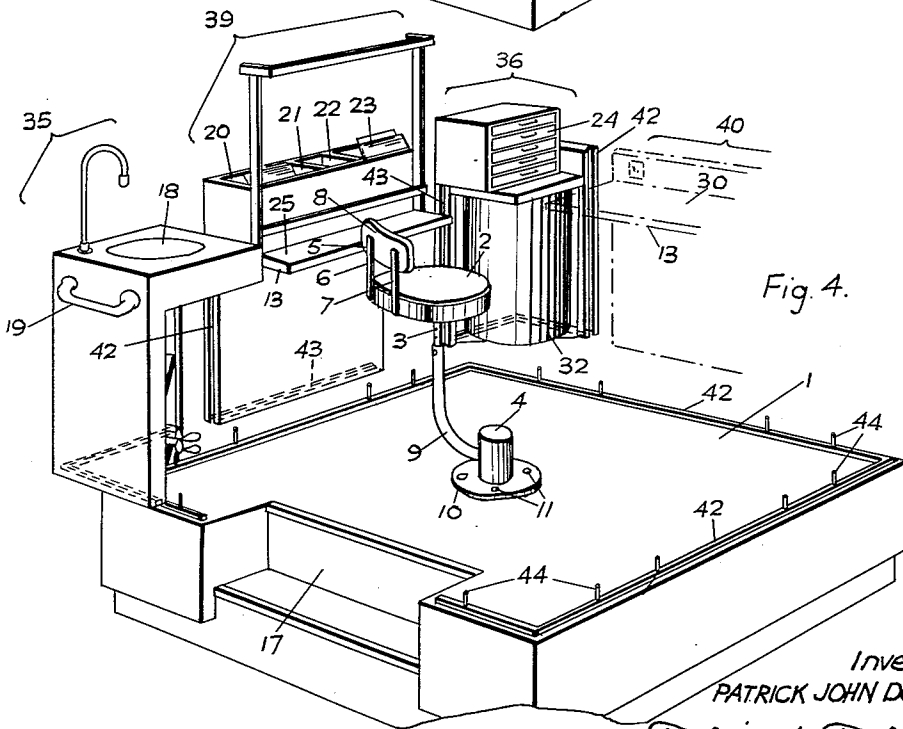


Fig. 4.

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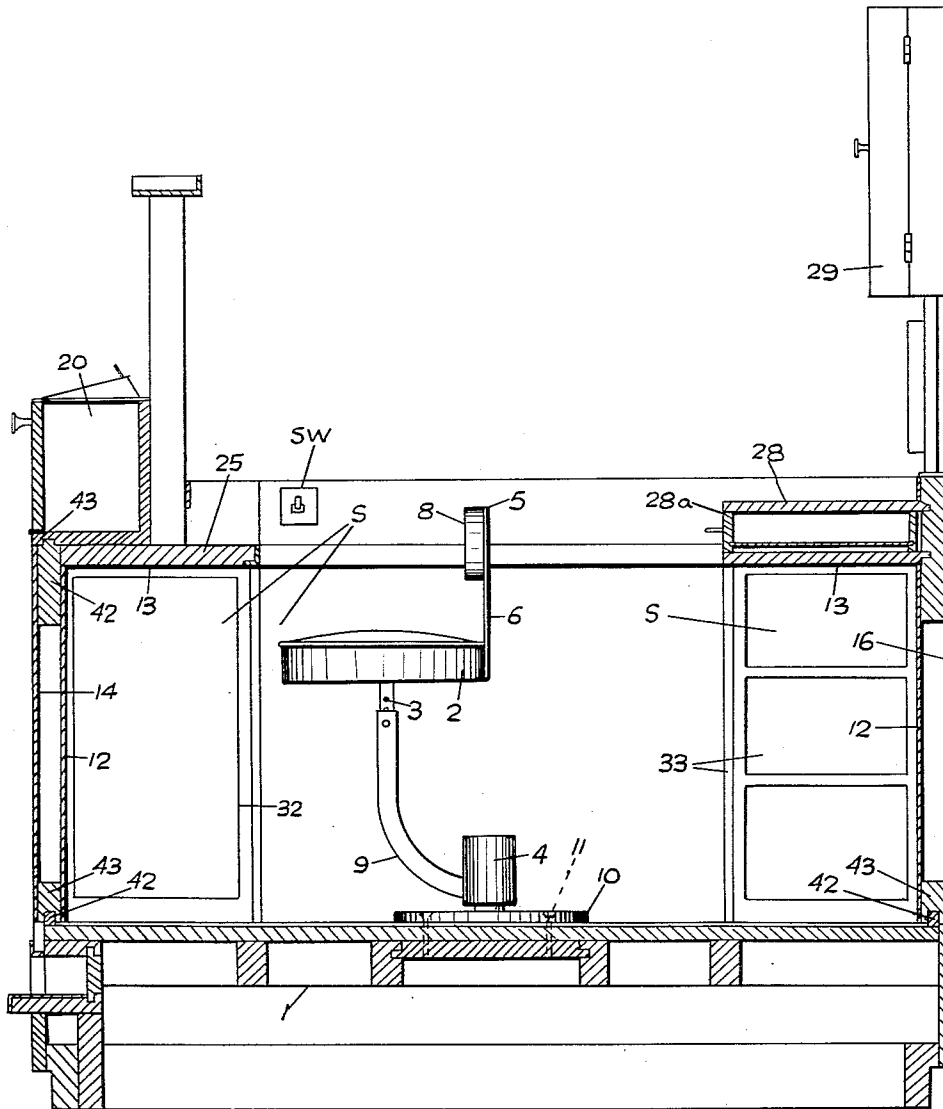


Fig. 5.

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WORKROOM FURNITURE

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2 Claims. (Cl. 312-209)

This invention is for improvements in or relating to work room furniture primarily for use in dentistry. As will be understood by those skilled in the art the efficiency with which a dental surgeon can work is dependent to a great extent upon the availability to the surgeon of various necessities such for example as a wash basin, a waste receiver, and dental instruments and the like, and also to cooperation from the assistant. In turn efficient co-operation of the assistant is dependent on the availability to the assistant of various necessities such as accommodation for a sterilizer, various cabinets, drawers and shelves and writing desk or the like. Heretofore these necessities have been provided mostly as separate units disposed at various spaced positions with the disadvantage that time is wasted both by the surgeon and the assistant in movement to and from these locations and between each other.

An object of the invention is to provide workroom furniture which is primarily of such construction as to improve the availability of said necessities and improve the co-operation of the surgeon's assistant, thereby promoting a high degree of efficiency in the surgeon's work.

The invention provides workroom equipment means comprising a base, a user's swivel seat adapted to be mounted on an offset axis on said base to provide an extensive variety of user's seating positions whereof the seat defines an imaginary boundary which is more extensive than allowed by the swivel alone, and work equipment units which are adapted to form an assembly on said base at sides of the seat with parts in predetermined spaced relationship with parts of said boundary to provide space for the seated user's knees, legs and feet and with outer edges in such predetermined horizontally spaced substantially parallel relationship with said parts of said boundary that all equipment associated with said units are within reach of the seated user's hands.

Conveniently the swivel pivot of the seat is disposed rearwardly offset from the centre of the seat. Conveniently also the base is a raised platform and the assembly of equipment is open at one side of the seat whereat there may be a step for the platform. The platform is conveniently substantially square sided and the equipment units conveniently register with three sides of the square.

In a particular use for the invention the equipment units are appertaining to the dental profession. Conveniently some of the equipment units are those required for use by a dental surgeon or by the surgeon and an assistant seated on the swivel seat, and the remaining equipment units are those mainly required by the seated assistant. Those equipment units required by the surgeon are for equipment such for example as a wash basin, waste receivers, and dental instruments, and the remaining equipment units are for equipment such for example as a sterilizer, a writing table top, a record filing cabinet and desired shelves, drawers, cabinets, cupboards or the like.

Conveniently the equipment units and the platform are initially separate units adapted to be keyed together and secured by screws at appropriate locations. In a convenient arrangement there are four corner units and appropriate intermediate units.

The above and other features of the invention set out in the appended claims are incorporated in the con-

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struction which will be described, as a specific embodiment with reference to the accompanying drawings in which:

FIGURE 1 is a general perspective view of workroom equipment means according to the invention,

5 FIGURE 2 is a plan view of said means,

FIGURE 3 is an exploded view of part of said means, FIGURE 4 is an exploded view of another part of said means,

FIGURE 5 is a cross sectional view of said means.

10 This workroom equipment means comprises the combination of a raised substantially square sided platform 1 on the centre of which there is mounted a user's swivel chair 2 and on three edges of which there is mounted a three sided assembly of dental equipment units.

15 The swivel chair 2 has three important features namely (1) that it has an extended range of movement by its swivel pivot 3 being pivotally mounted on an axis offset from a main axle 4, and (2) that the seat and back rest 5 closely conform to anatomical requirements to avoid 20 undesirable projecting parts and (3) that the centre of gravity in use is rearwardly of more usual position also to avoid undesirable projecting parts.

More specifically, the seat, which may be upholstered, is of the minimum area required for the average person 25 likely to use it. The back rest 5 consists (FIGS. 3 and 4) simply of a spaced upright pair of spring metal strips 6, 7 bridged at the top by a part 8 which may be cushioned for engaging the small of the back; in addition the spring uprights 6, 7 are rearwardly bowed so that 30 the user can sit well back on the seat, with the back rest 5 flexing rearwardly, whereby there is substantially no projecting parts of the seat at the rear of the user. The seat is mounted on the swivel pivot 3 at a location (FIG. 2) about $\frac{1}{3}$ of the distance rearwardly between the centre C and rear R of the seat. The swivel pivot is mounted 35 on the upper end of a tubular support 8 (FIGS. 3 and 4). The lower end of this support terminates in a radial tubular part 9 which, in normal position of the seat (FIG. 2) extends rearwardly to a location substantially under the immediate rear of the back rest 5 (the relationship 40 of the radial arm to the seat of course varies in use as will be hereinafter more fully referred to). The radial arm is supported by the main axle 4 on a base plate 10 which has bolt holes for fixing in position by bolts 11.

45 The seat is fixedly in position by the bolts 11 through the base plate 10 at a central location on the platform 1.

By this arrangement of the seat 2, there is provided an extensive variety of user's seating positions whereof the seat defines an imaginary boundary indicated at B 50 in FIG. 2 which is more extensive than allowed by the swivel 3 alone. In the example FIG. 2 the boundary B is substantially square with its sides substantially parallel to the sides of the platform 1. The dental equipment units provided are generally adapted to form an assembly on the platform 1 extending along three sides 55 thereof, and outer wall parts such as 12 (FIG. 1) and table top parts such as 13 are in such predetermined spaced relationship with respective side parts of the boundary B as to provide space S (FIG. 5) for the seated user's knees, legs and feet, and with outer edges such as 14, 15, 16 (FIG. 2) in such horizontally spaced 60 substantially parallel relationship with said side parts of said boundary B that all equipment associated with the equipment units are within reach of the seated user's hands.

65 In this three sided arrangement, a step 17 is conveniently provided at the opening of the fourth side.

The equipment units are for equipment required for use by a dental surgeon and an assistant seated on the 70 swivel seat.

For example a first side of the top assembly which is disposed nearest the dental surgeon may be made up of,

first at its free end, a wash basin 18, and a towel rail 19; next to the wash basin there may be a receptacle 20 for waste; next there may be a compartment 22 for gauze squares and another 21 for syringes; next to these there may be another waste box 23; switches SW may be also provided; and at the corner junction between this first side of the top assembly and the end top assembly there may be trays and drawers 24 for instruments. The compartments 20, 21, 22, 23 and the switches SW (which face inwards of the structure), may be disposed towards the outer edge whereby towards the inner edge there may be provided a table top 25.

The second, opposite, side the top assembly may be made up of, first at the free end, a telephone support 26, and then a table top with drawer 27 and if desired a record filing cabinet; next to which there may be a writing surface 28 with drawers 28a and over this there may be a storage cabinet 29 for impression material, and a locker and shelves if required.

The end top assembly may be made up, next to the trays and drawers 24 for instruments, of a sterilizer or accommodation 30 for a sterilizer and trays, and next to this i.e. at the junction between this end top assembly and the said second side top assembly, a table top 31.

Under the drawers 24 there may be a storage heater 32; under the table top 31 there may be a cupboard and shelves 33; under the filing cabinet or drawer 27 there may be another cupboard 34, and under the telephone support 26 there may be an electric switch panel P.

The equipment units conveniently consist of four initially separate corner units 25, 36, 37, 38 (FIGS. 3 and 4) of angular cross section and three initially separate intermediate units 39, 40, 41. The base is also an initially separate unit, and all these units have keys and keyways such as shown at 42, 43 for keying them together, with screws added where appropriate such as those shown at 44 in the platform 1 for screwing into the different units.

In use of the assembly, it is located with the first side top assembly facing a side or rear of the patients chair and with a sufficient distance between it and the patients chair of the dental surgeon to work and close enough to the dental surgeon for him and the assistant (when the assistant is seated on the swivel chair) to be within ready bent arm reach of each other.

The calculated arrangement of the swivel chair and the angular desk like assembly is such that the extended movements of the chair go beyond the inner edges of the top structure, the knees and legs of the user passing, during the movements of the chair, underneath the top assembly as allowed by the space S at the inner and underside of the top assembly. The benefit of this is that all parts of the top assembly are substantially within comfortable reach of the assistant. Furthermore the first side top assembly is also entirely within substantially comfortable reach of the dental surgeon. The swivel chair can be evidently used in a multiplicity of positions, some of which may not be obvious; for example the user can move bodily rearwards by swinging about the offset pivot without turning the body and seat such as to be in a better position say to open a drawer in front of the user or for more ready co-operation with the surgeon.

Thus an assembly according to the invention provides necessities of the profession in a manner which makes them very readily available not only to the assistant,

and to the dental surgeon from the assistant, but also in required part to the surgeon, and this ready availability is evidently such as to promote a high degree of efficiency in the surgeon's work.

It is to be understood that the invention includes within its scope modifications of the unit particularly described. For example the drawers, lockers, trays and other parts of the top assembly may be located in any positions other than those referred to according to requirements.

Furthermore the arrangement and type of said parts may be suitable for use by persons other than in the dentists' profession; for example the assembly top may be designed specifically for use as a combined reception and clerical desk in which event the assembly top may be of right angle formation, the two sides being employed appropriately for suitably accommodating clerical equipment such as an appointments book, a typewriter, and record books, and providing a writing space and if desired telephone equipment. In another example the assembly top may be again of right angle formation and suitably accommodating a typewriter and a comptometer.

What I claim is:

1. A dental workroom chair and equipment structure comprising in combination a raised substantially square-sided platform unit having four sides, a swivel chair comprising a main axle fixed at a substantially central location on said platform unit, a seat mounted on a swivel pivot and having a back rest, and a support having a lower radial part mounted on said main axle and an upper part carrying said swivel pivot offset from said main axle such that the seat can be used in a multiplicity of positions within an imaginary boundary substantially parallel to said sides of said platform, a number of dental equipment units comprising four corner units of angular cross section and three intermediate units which form an assembly extending along three of said sides of said platform, key and keyway means for connecting all said units together, such that said assembly has outer wall parts and top parts which have such predetermined spaced relationship with said imaginary boundary as to provide space for seated users' knees, legs and feet, said top parts having outer edges which outer edges and said imaginary boundary are in such substantially parallel relationship that substantially all said top parts of said dental equipment units are within reach of seated users upon movement of said seat through its multiplicity of positions, and said assembly providing an opening at the fourth side of said platform for passage of users onto and off the platform.

2. A dental workroom chair and equipment structure as claimed in claim 1, wherein said units incorporate at one side a wash basin and other items of equipment which together with the wash basin are specifically for use by the dentist personally, a writing surface at the opposite side, and sterilizer accommodation at the other side.

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