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MOBILE DENTAL UNIT

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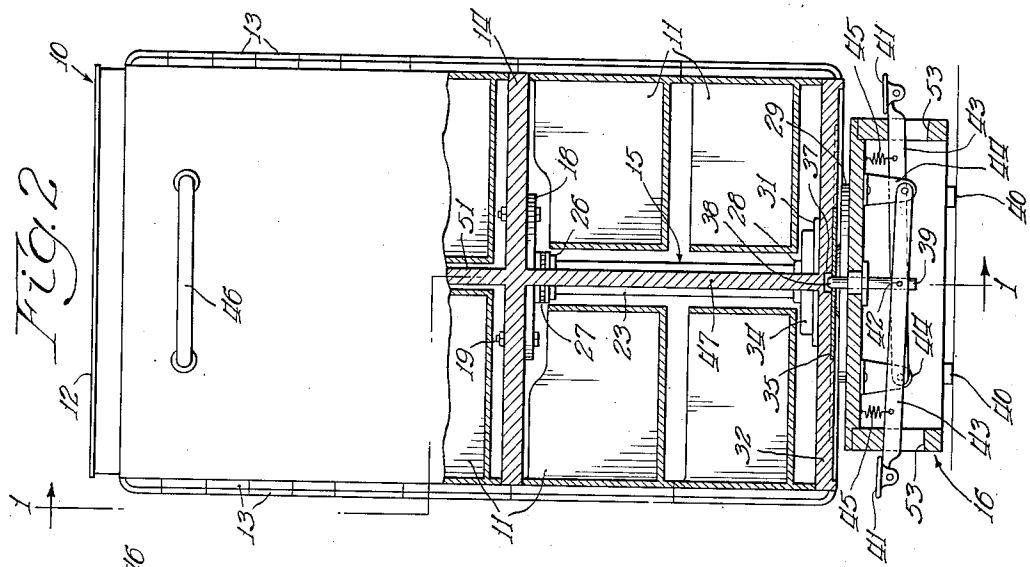


Fig. 2

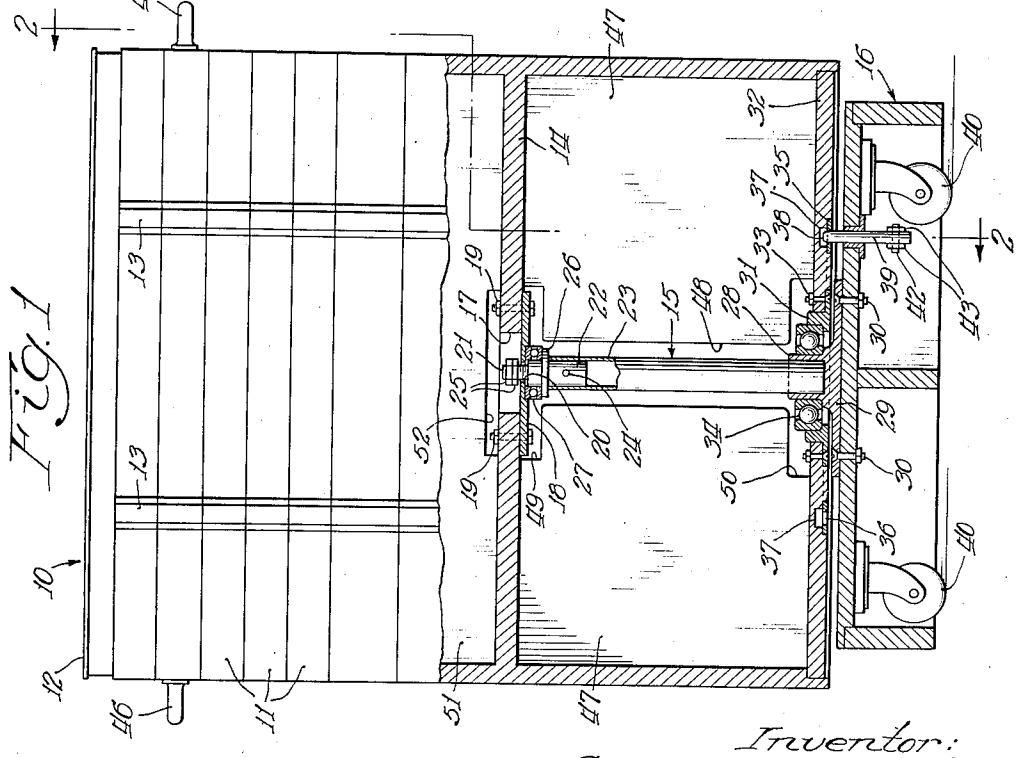


Fig. 1

Inventor:
George E. Froelich
By: A. Trevor Jones
Atty.

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MOBILE DENTAL UNIT

George E. Froelich, Two Rivers, Wis., assignor to Hamilton Manufacturing Company, Two Rivers, Wis., a corporation of Wisconsin

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2 Claims. (Cl. 312—157)

This invention relates to a mobile dental unit for use by dentists and other professional operatives.

Among other objects, the invention aims to provide greater mobility and accessibility for servicing a patient rapidly and efficiently without the necessity for a number of operatives. In other words, the present tendency is toward greater efficiency in dental equipment in this respect which makes possible not only ease and rapidity of servicing of a patient, but also frequently permits the reduction of cost of service by the elimination of the necessity for an additional operative such as a nurse or assistant.

Other objects and advantages will be readily apparent from the following description taken together with the accompanying drawing, in which—

Figure 1 is a front elevation of the unit constructed in accordance with my invention, parts being shown in section; and

Figure 2 is a side elevation of the structure of Fig. 1.

Referring in detail to the illustrative construction shown in the drawing, the cabinet 10 is generally constructed of wood, having drawers 11 and a working top 12, which is of the average height for convenient use as the table or working surface when the dentist is standing adjacent the operating or examining chair.

In order that a greater number of drawers may be readily accessible to the dentist within a relatively small compass of space, it will be seen that I have provided drawers 11 on both sides of the cabinet 10, which thereby desirably has two fronts facing in opposite directions. The drawers 11 may advantageously increase somewhat in size from the upper toward the lower part of the cabinet. The drawers may be controlled by handles 13 arranged in accordance with the Evans Design Patent No. 93,337, in which the handles are arranged to simulate sections of a continuous uniform strip extending from the top to the bottom of the cabinet.

The cabinet may be conveniently divided into upper and lower main sections by the horizontal partition 14, which also serves as a beam upon which the cabinet is revolubly supported on the center post 15, which latter rises from the base 16. For this purpose the horizontal partition 14 has a central opening 17 therein, beneath which is secured a plate 18 fastened by bolts 19 to the partition. The plate 18 is centrally apertured as at 20 to pass therethrough into the opening 17 the reduced end 21 of a rod 22 which is an operative part of the center post 15. In this instance, the center post 15 also includes a hollow tube 23 which telescopically receives the rod 22, these parts being united to form an operative whole by the stud 24. A pair of lock nuts 25 threaded onto the reduced end 21 over the aperture 20 prevent the cabinet from being lifted off the center post 15.

To permit easy turning of the cabinet on the center post, the tube 23 has a cylindrical flange 26 at its upper end between which and the plate 18 is located an anti-friction member 27 comprising the usual pair of races and balls therefor. Thus the weight of the cabinet rests through the anti-friction member 27 on the center post 15, and, through the latter, on the base 16. At its lower end the center post 15 is fixedly received in a cup-shape bearing block 28 having a peripheral flange portion 29 which is secured as by bolts 30 centrally of the base 16. To further provide for ease of turning of the cabinet on the base, the cabinet may have a supplemental bearing block 31 secured centrally of the lower wall 32 of the cabinet as by bolts 33, and between which and the cup-shape portion of the block 28 is another anti-friction member 34, desirably of larger proportions than the anti-friction device 27 and which receives lateral stresses on the cabinet with respect to the center post.

Encircling the bearing block 31 of the cabinet, there is shown in this instance a circular plate 35 which is provided at diametrically opposite places therein with holes 36 which in cooperation with recesses in the bottom wall 32 form a pair of sockets 37 which are selectively adapted to receive the nose 38 of a detent pin 39 vertically reciprocable on the base 16. Thus, when the detent is received in one of the sockets, relative rotation of the cabinet on the base is prevented and the cabinet and base may be mobilized or moved as a rigid unit on the wheels 40 secured to the base and upon which the latter is carried. The wheels are preferably rubber-tired.

So constructed and arranged, the dentist may roll the unit into convenient position close at hand to the particular location with respect to the operating chair at which he may be working at the moment. That is, if he is working from a position at the rear of the operating chair, the unit may be rolled adjacent thereto, while, at other times, the unit may preferably be located adjacent the front of the operating chair, from which position the dentist more generally works.

When, now, the dentist wishes access to drawers on the opposite face of the cabinet from the

one at the moment facing him, he may depress one of the pedals 41, of which there are desirably two, one on each opposite side of the base. The pedals 41 are both secured intermediately to the detent pin 39, as by a common pivot pin 42 and in this instance the pedals each include a pedal lever 43 which at its end opposite the pedal proper is pivoted to a bracket 44. Thus, the pedals function as levers of the second class. When either one of the pedals 41 is depressed the end of the detent pin is withdrawn from its then associated socket 37 and the cabinet may be revolved on the base to place the other side of the cabinet nearest the operator. While the cabinet is revolving the foot of the operator may be removed from the pedal and the end of the detent will ride on the plate 35 until the other socket 37 is aligned with the detent pin which will then be biased into the socket as by expansion coil springs 45 connected with the pedal levers 43.

As clearly shown in the drawing, the cabinet is of greater length than width to enhance the length of the two working fronts.

The base 16, which is desirably skirted as shown to conceal the wheels 40, is also greater in length than width so as to provide enhanced stability and is preferably smaller both in length and breadth than the cabinet 10, so as to avoid the feet of the dentist and the pedals 41 preferably terminate within the vertical projection of the cabinet so as to avoid striking other objects.

Handles 46 at opposite ends transverse to the fronts of the cabinet advantageously extend well across this end, for convenient grasping.

The lower portion of the cabinet may be reinforced by vertical partitions 47 arranged perpendicularly to the horizontal partition 14 and the lower wall 32 of the cabinet, and these vertical partitions terminate centrally of the cabinet short of the center post 15 to leave the space 48 which is enlarged at the top and bottom of these partitions 47 as at 49 and 50 respectively to accommodate the anti-friction devices referred to.

The upper part of the cabinet may be also reinforced by the transverse partition 51 vertically aligned with the partitions 47 but in this instance extending the entire length of the cabinet, being merely cut out as at 52 to accommodate the bolts 19.

The pedal levers 43 extend through vertical slots 53 in the skirted portion of the base, and this slot desirably guides the pedal 41 in its movement to limit objectionable lateral deflection thereof.

Such changes may be made as fall within the scope of the following claims without departing from the invention.

Having described by invention, I claim:

1. In a mobile dental unit, the combination with a base having mobilizing means, of a cabinet revolubly mounted thereon, the cabinet having two working fronts facing in opposite directions and a plurality of drawers in said fronts, positive releasable locking mechanism for preventing rotation of the cabinet on the base, said mechanism including a pair of longitudinally aligned sockets on the under side of the cabinet, a single detent carried by the base vertically movable therein and receivable in either of said sockets, spring means normally biasing said detent upwardly, and a pair of actuating pedals accessible respectively on opposite sides of the base and both operatively connected with said detent for depressing the detent against said spring action, whereby the unit may be mobilized by lateral pressure on the cabinet while maintaining said relative rotative position of the cabinet and base and the cabinet may be selectively positioned on said base with either of said fronts of the cabinet facing in a given direction.

2. In a mobile dental unit, the combination with a base having mobilizing means, said base being of greater length than width, of a cabinet revolubly mounted thereon, the cabinet having two working fronts facing in opposite directions and a plurality of drawers in each of said fronts, handles on said cabinet at said ends transverse to said fronts, said cabinet also having greater length than width and both the length and the width of the cabinet being greater than the corresponding dimensions of said base, positive releasable locking mechanism for preventing rotation of the cabinet on the base when the length of the cabinet extends in a direction parallel to the length of the base, and means for releasing said locking mechanism, whereby the unit may be mobilized by lateral pressure exerted on the cabinet while maintaining said relative rotative position of the cabinet and base and the cabinet may be selectively positioned on said base with either of said fronts of the cabinet facing in a given direction.

GEORGE E. FROELICH.