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A. F. PIEPER

DENTAL APPARATUS

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Fig. 1

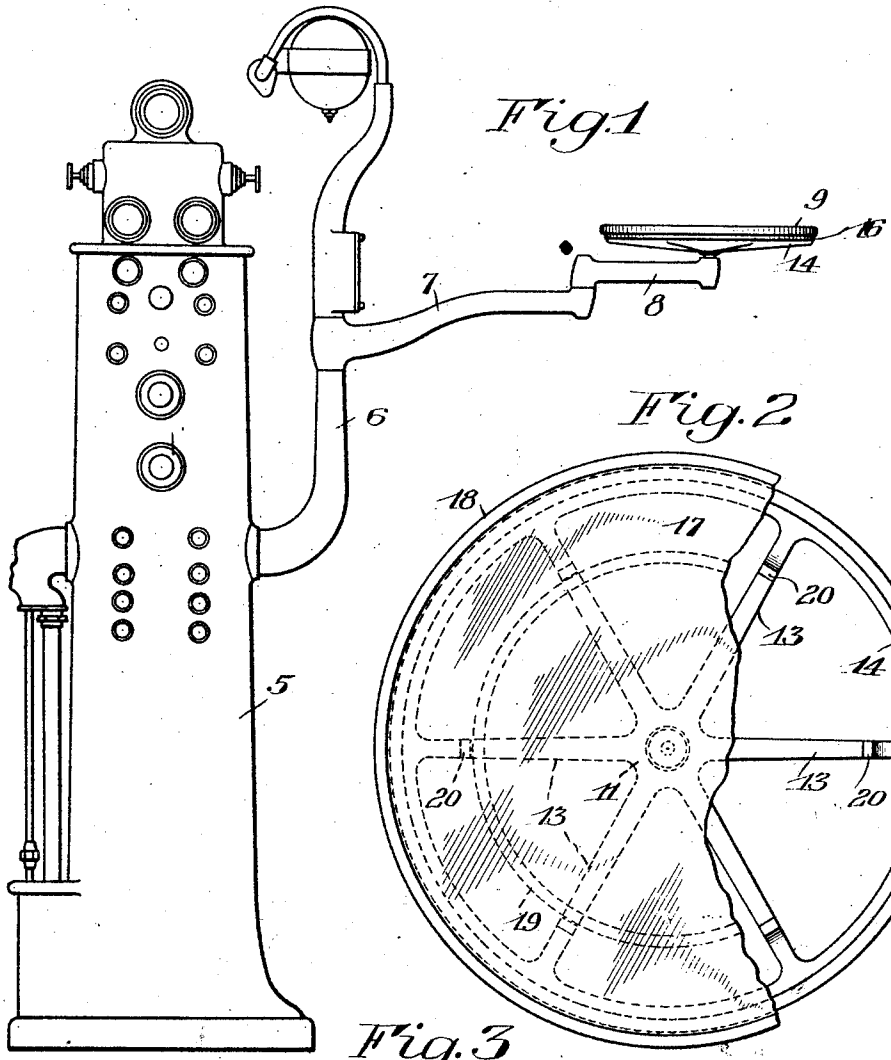
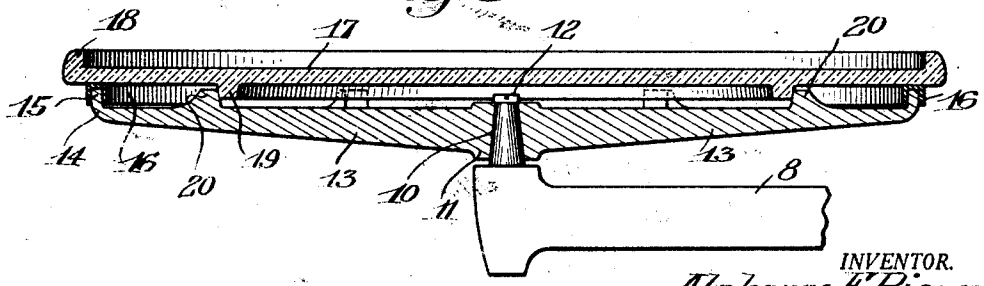


Fig. 2

Fig. 3



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DENTAL APPARATUS.

Application filed September 20, 1923. Serial No. 663,891.

This invention relates to dental apparatus and more particularly to fixtures for dental chairs or equipment pedestals for supporting equipment such as hand tools, supplies and the like within convenient reach of the dentist, the present invention being in the nature of an improvement on the tray fixtures disclosed in Letters Patent No. 1,376,356 granted jointly to Oscar H. Pieper and myself April 26, 1921, for unitary dental apparatus and in the Letters Patent No. 1,511,422, granted to Oscar H. Pieper October 14, 1924, for dental apparatus. The chief object of the present invention is to provide a device of the above character of a more simple and advantageous construction capable of being manufactured at a lower cost.

To these and other ends the invention resides in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 is an elevation of a unitary apparatus stand or pedestal having the present invention applied thereto;

Fig. 2 is an enlarged plan view of the supporting fixture or tray means embodying the present invention and

Fig. 3 is a vertical central section through the parts shown in Fig. 2.

Similar reference numerals throughout the several views indicate the same parts.

The preferred embodiment of the invention is disclosed herein as applied to a unitary dental apparatus stand or pedestal 5, of the character disclosed in said Letters Patent for supporting equipment such as a cuspidor fixture, dental engine, hand tools and implements and the like, but is of course otherwise applicable, as, for example, in connection with a dental chair. The tray fixture is in this instance carried by a branching pedestal arm 6 provided for the dental engine. This branching arm has pivotally mounted thereon an arm 7 at the outer end of which is pivotally carried a supporting arm 8 for the tray indicated generally at 9, it being apparent that the pivotal adjustment of the arms 7 and 8 provides for a substantial range in movement for the tray for adjusting the same to various accessible positions as required by the work in hand.

The supporting arm 8 has fixed in its outer end an upwardly projecting stud 10 preferably tapered outwardly from top to bottom as shown. Rotatably mounted on this stud is a supporting member or frame comprising preferably a hub portion 11 having a central tapered opening fitting the stud 10. The hub thus rotates freely on the stud and the taper of the parts supports the hub vertically and at the same time provides for automatically taking up wear in use to maintain a close fit. A screw 12 in the upper end of the stud holds the hub against removal. The hub has radially extending means or arms 13 carrying a circular rim 14 provided with an upwardly pojecting flange 15 embraced and covered by a channel or U-shaped strip 16 of cushioning material, such as rubber. Strip 16 thus provides for the supporting member or frame a peripherally extending seat on which is supported a plate or tray 17 preferably of vitreous material adapted to receive hand tools, implements, supplies and the like. Preferably the tray has an upwardly extending flange 18 for retaining articles thereon and on its under side, spaced inwardly from the periphery is a depending flange 19 cooperating with abutment means or lugs 20 carride on the radial arms 13. The weight of the tray is carried entirely on the cushioned seat described, while the cooperating abutment means 19 and 20 serve to maintain the tray in properly centered position on the supporting frame.

The supporting frame is thus of a simple, substantial and integral form of construction capable of being practically manufactured as a metal casting at a low cost. The cushioning strip is readily secured in place as for example by the application of a suitable cement, while the frame as a whole is carried on a simple and effective pivotal mounting, the construction of which maintains a neat bearing fit. As pointed out in the said copending application for patent, the bottom flange of the tray not only serves to position the latter in use but also to space the trays when nested together in quantities for shipment to prevent chipping contact of the edges of one with another. The construction is such that the tray may be con-

veniently removed for cleaning and replaced in proper position on the supporting frame and the parts as a whole have a simplicity of arrangement and outline affording an attractive appearance.

I claim as my invention:

1. In a dental apparatus, the combination of a supporting arm, a supporting member rotatably carried on said arm and having a peripherally disposed seat of cushioning material, an instrument tray supported on said seat and co-operating abutments on said member and tray located inwardly of the seat and adapted for centering the latter on said member.

2. In a dental apparatus, the combination of a supporting arm, a supporting member rotatably carried on said arm, an upwardly projecting peripheral flange on said member provided with cushioning material, an instrument tray supported on said material and cooperating abutments on said member and tray located inwardly of the flange and adapted for centering the tray on said member.

3. In a dental apparatus, the combination of a supporting arm, a supporting member rotatably carried on said arm, an upwardly projecting peripheral flange on said member provided with cushioning material, abutment means on said member inwardly of said flange, and an instrument tray supported on said material and having depending abutment means cooperating with the abutment means on said member to prevent lateral shifting of the tray.

4. In a dental apparatus, the combination of a supporting arm, a supporting member rotatably carried on said arm and having a peripherally disposed seat of cushioning material, abutment means on said member inwardly of said seat and a depending flange on said tray cooperating with said abutment means for maintaining said tray in position.

5. In a dental apparatus, the combination of a supporting arm, a supporting member comprising a hub portion rotatably supported on said arm with radially extending means carrying a rim provided with an upwardly projecting flange, cushioning material on said flange, abutment means on said radially extending means and an instrument tray supported on said material and having a depending flange cooperating with said abutment means for positioning said tray.

6. In a dental apparatus, the combination of a supporting arm, a supporting member rotatably carried on said arm, an upwardly projecting peripheral flange on said member, a channeled strip of cushioning material embracing and covering said flange, abutment means on said member, and an instrument tray supported on said material strip and having a depending flange for cooperation with said abutment means.

7. In a dental apparatus, the combination of a supporting arm, a supporting frame comprising a hub portion rotatably mounted on said arm with radially extending arms carrying a circular rim, an upwardly turned flange on said rim, cushioning material on said flange, lugs on said radial arms and an instrument tray supported on said material and having a depending flange for engagement with said lugs to center said tray in position.

8. In a dental apparatus, the combination of a supporting arm, having an upwardly extending tapered stud, a frame having a tapered bearing rotatably supporting the same on said stud, a peripherally extending seat of cushioning material on said frame, an instrument tray removably supported on said seat, and cooperating portions on the frame and tray for centering the latter upon the frame, said portions being located inwardly of said cushioning material.

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