W. L. SMITH.

DENTAL CABINET.

APPLICATION FILED MAY 14, 1915.

1,194,436. Patented Aug. 15, 1916.

FIG. 1

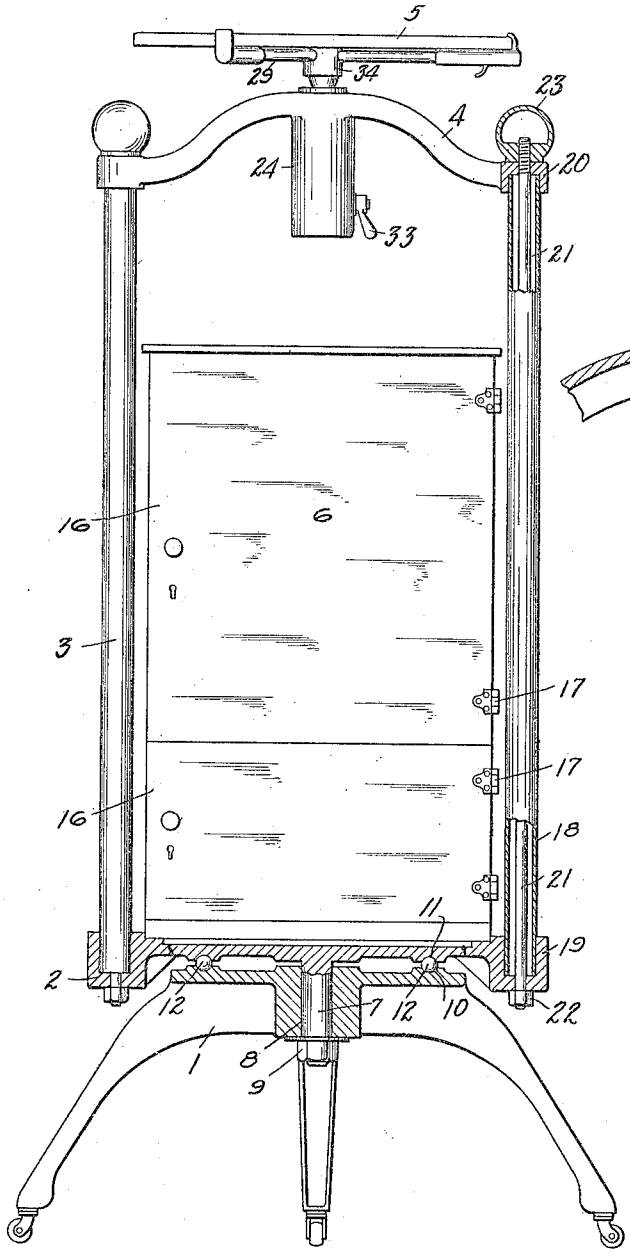


FIG. 4

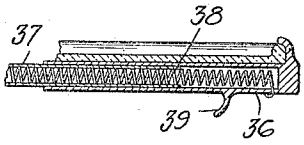
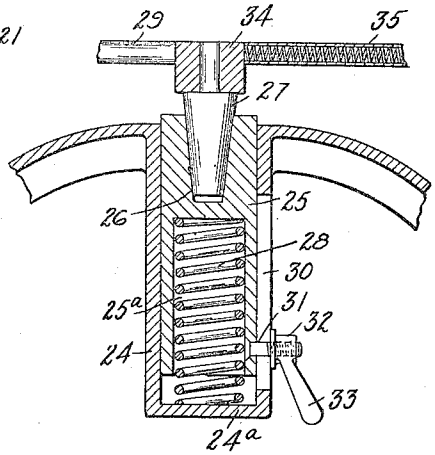


FIG. 3



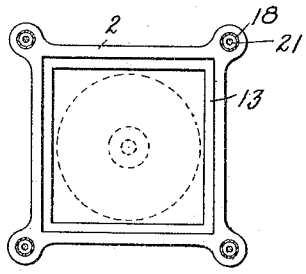


FIG. 2

WITNESSES

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DENTAL CABINET.

1,194,436. Specification of Letters Patent. Patented Aug. 15, 1916.

Application filed May 14, 1915. Serial No. 28,145.

To all whom it may concern:

Be it known that I, WESLEY LINFORD SMITH, a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Dental Cabinets, of which the following is a specification.

This invention relates to a dental cabinet.

The object of the invention is to provide an article of this character which can be readily assembled and disassembled and which may be conveniently formed of sanitary materials such as enameled iron ware and glass and therefore presents an attractive and cleanly appearance, and one in which the height of the stand or tray on the upper portion of the cabinet may be easily adjusted vertically.

A further object is to provide a construction in which the main body of the cabinet is rotatable upon a base so that ready access may be had to any side of the cupboard or receptacle of the cabinet, and so that when the receptacle is formed of glass, as is preferable, there is no danger that an open door be broken by being brought into contact with the supporting frame of the cabinet, as might occur were the receptacle alone made rotatable.

In the accompanying drawings, Figure 1 is a view of the cabinet and its base as assembled, being partly in side elevation and partly in section; Fig. 2 is a plan view of the lower frame member of the cabinet body; Fig. 3 is a view showing in cross section the means for elevating and lowering the tray relatively to the upper portion of the framework of the cabinet; and Fig. 4 is a sectional view through one of the tray supporting arms.

The cabinet comprises a stand or base 1 upon which the upper framework and the inner receptacle of the cabinet may be rotatably supported, a bottom frame member 2 rotatably supported on said base 1, upright supports or rods 3 fitting in seats in the lower frame member 2, an upper frame member 4 provided with seats to receive the upper ends of the upright members 3, a light tray 5 formed preferably of porcelain or other suitable material and which is supported on the upper frame member 4 in vertically adjustable relation thereto, and a receptacle 6 preferably formed of glass and provided in its interior with a plurality of shelves and on one or more of its sides with hinged glass doors. The base and the bottom and upper frame members are preferably formed of enameled iron ware so as to present a clean and sanitary appearance, while the uprights 3 of the framework of the cabinet are preferably light in construction and may be formed of nickeled tubes.

The lower frame member 2 is provided with a downwardly extending pin or trunnion 7 which fits into a corresponding bore 8 in the top of the base 1. Bore 8 may be continued entirely through the top of the base and the lower extremity of the pin 7 may extend therethrough and be threaded to receive a nut 9 and thereby attach the frame to the base 1 so as to prevent accidental displacement. The upper portion of the base is provided with an annular and practically semi-circular groove 10 and a similar groove 11 is formed on the under surface of member 2 to coincide with groove 10 and form a ball race for the ball bearings 12. The entire body portion of the cabinet is thus made freely rotatable upon the base so that access can be had to any side of the cabinet without necessity of the operator changing his position.

The upper surface of the member 2 is formed with a depressed ledge 13 upon which the glass receptacle or cupboard 6 may rest securely without being fastened thereto. This receptacle or cupboard is, as stated, preferably of glass and is formed by cementing together sheets of glass at their points of contact in the manner customary in such constructions. The receptacle is also preferably provided through part of its height with a plurality of glass shelves and has, on one or more of its sides, glass doors 16 turning on metal hinges 17 secured to the cupboard walls. A portion of this receptacle may be used as a sterilizing chamber, and provided with a small door so that it may be used independently of the shelved instrument containing portions of the cupboard. By providing doors on two sides of the receptacle instruments may be taken therefrom without the necessity of reaching any distance thereinto, and since it is rotatable upon the base 1 ready access may be had to all sides thereof.

The uprights 3 are preferably formed of tubes 18 fitting into sockets 19 in the bottom frame member 2 and corresponding sockets

20 in the upper frame member 4. Extending through these tubes and through both the bottom and upper frame members 2 and 4 are tie rods 21 which are threaded at their ends for receiving the bottom nuts 22 and the top nuts 23, the latter preferably being of ornamental form. By these means the frame of the cabinet can be tightened so as to render the same rigid and secure, and at the same time can be easily taken apart for cleaning and sterilizing.

The tray 5 which is used to hold the instruments for immediate use, is so mounted in a sleeve 24 located centrally of the upper frame member 4 as to be both rotatable and vertically adjustable, so that it can be regulated to the height at which the person using the cabinet finds it most convenient to pick articles therefrom, and can also be rotated to bring the desired article within easy reach. The supporting device for the tray comprises a member 25 slidable in the sleeve 24 and provided on its upper extremity with a bore 26 for rotatably holding a spud 27 to which is secured a tray carrying spider 29. Member 25 is cored out, as at 25^a, to provide a housing for spiral spring 28 which extends thereinto and bears against the bottom wall 24^a of sleeve 24. This spring exerts a constant tendency to push the member 25 upwardly and thereby raise the tray supported thereby. Means are provided for locking the member 25 against the action of spring 28 in any position throughout the limit of its movement. To this end the sleeve 24 is provided with a vertical slot 30 through which projects a bolt 31 secured at its inner end to the member 25 and provided on its outer end with a nut 32 having a handle 33 or other convenient means for turning said nut. This nut bears against the outer face of the sleeve 24 and serves to clamp the member 25 to said sleeve.

The tray supporting spider 29 comprises a hub portion 34 which is secured to the spud 27 and a plurality of tray holding arms 35, preferably three in number. These arms are preferably yielding lengthwise so that the tray will be securely held in position thereby and can be readily removed therefrom. As shown, they comprise two tubular members 36 and 37, telescoping the one in the other, and which are united by a tension spring 38 whose ends are secured to said members respectively, and which serves to normally hold said members contracted in length and yieldingly engaging the tray. The tubular member 36 of one of said arms is preferably provided with a finger grip 39 by means of which said arm can be elongated to disengage the tray and permit its removal.

The construction as a whole provides a combined cabinet and stand which can be easily taken apart for sterilization, which presents a neat and clean appearance, and which provides free access to any portion of the receptacle and tray carried thereby. Since the whole cabinet body is rotatable upon the base there is no danger of breaking the glass doors of the inner receptacle against the supporting columns if a door should be left open and the cabinet rotated to reach the other side of the receptacle. In operating the tray supporting device it is only necessary to loosen the nut 32 and permit the spring to act against the member 25 in order to elevate the tray into the position desired where it can again be locked. In order to lower the tray it is simply pressed downwardly by hand against the resistance of the coiled spring 28 and locked in the position desired by means of nut 32.

What I claim is:—

1. A dental cabinet comprising a base, a frame rotatably mounted on said base, a member mounted in the top of said frame and vertically adjustable therein, and a tray rotatably mounted in said member.

2. A dental cabinet comprising a base, a frame comprising a bottom member rotatably mounted on said base, a top member and vertical supporting and tie members removably securing said top and bottom members together, said bottom member being provided with a depressed ledge inside of said vertical members for receiving and supporting a cabinet, and a cabinet resting on said ledge.

3. A dental cabinet comprising a base, a frame rotatably mounted on said base, a member mounted in the top of said frame and vertically movable therein, a spring arranged to elevate said member, means for clamping said member to said frame in the desired elevated position, and a tray supported by said vertically movable member.

4. A dental cabinet comprising a base, a frame rotatably mounted on said base, a member mounted in the top of said frame and vertically movable therein, a spring arranged to elevate said member, means for clamping said member to said frame in the desired elevated position, and a tray rotatably mounted on said vertically movable member.

5. A dental cabinet comprising a frame, a member mounted in the top thereof and vertically movable therein, a spring arranged to elevate said vertically movable member in said frame, means for clamping said vertically movable member to said frame in the desired elevated position, a tray support rotatably mounted on said vertically movable member, and yielding extensible arms engaging the tray.

6. A dental cabinet comprising a base, a frame rotatably mounted thereon, a sleeve in the upper portion of said frame, a tray mounted thereon, yielding means in said

sleeve arranged to raise said tray, and means for locking said tray in the desired elevated position.

7. A dental cabinet comprising a base, a frame rotatably mounted thereon, tray supporting means vertically adjustable in said frame, and a tray rotatably and removably mounted on said tray supporting means.

8. A dental cabinet comprising a base, a frame comprising a bottom member rotatably mounted on said base, a top member and vertical supporting and tie members removably securing said top and bottom members together, said bottom member being provided with a depressed ledge inside of the vertical frame members, and a cabinet resting on said ledge and provided with side doors hinged at the corners of said cabinet and inside the planes of the inner sides of the said vertical frame members.

In testimony whereof, I have hereunto set my hand.

WESLEY LINFORD SMITH.

Witnesses:

GLENN H. KERESCHE,

WILLIAM B. WHARTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."