GILDARDO VELILLA M.

DENTAL APPLIANCE.

APPLICATION FILED MAR. 27, 1919.

1,313,031.

Patented Aug. 12, 1919.

Fig. 3.

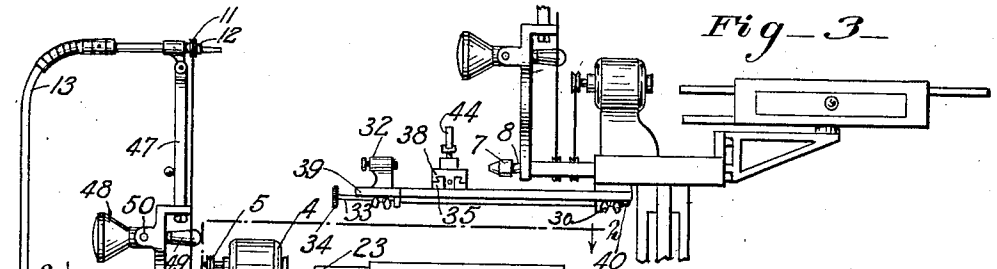


Fig. 1.

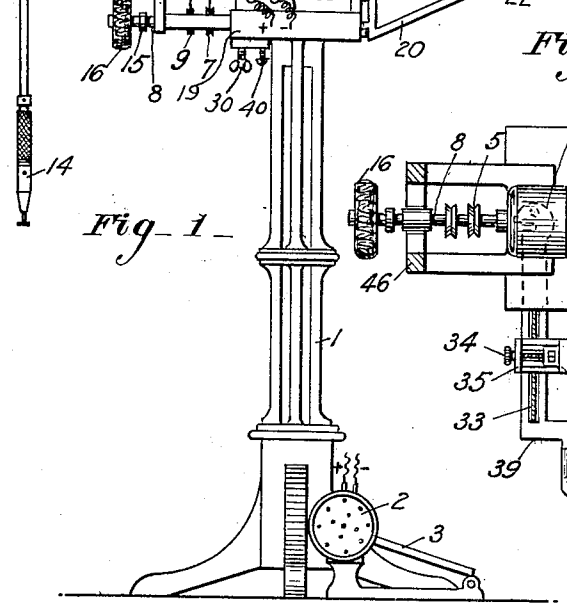


Fig. 2.

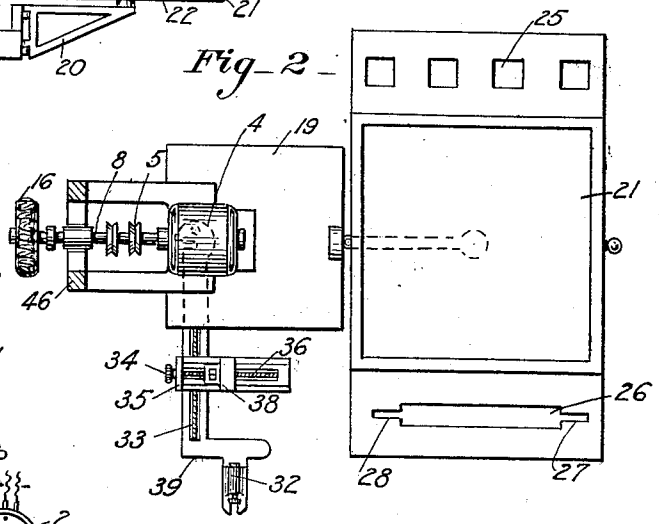
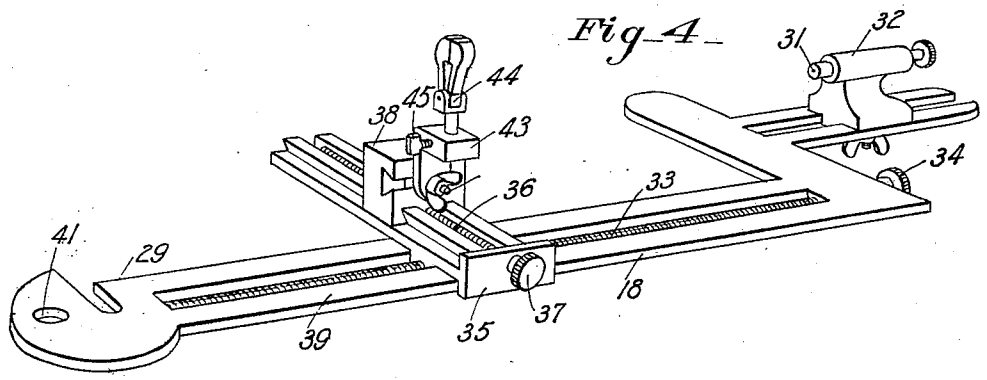


Fig. 4.



WITNESSES

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DENTAL APPLIANCE.

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To all whom it may concern:

Be it known that I, GILDARDO VELILLA M, a citizen of Colombia, and a resident of Progreso, Yucatan, Mexico, have invented a new and useful Improved Dental Appliance, of which the following is a full, clear, and exact description.

This invention relates to dental appliances and has for an object the provision of an improved construction which is especially designed for use by itinerant dentists, though capable of use in any dental office.

Another object in view is to provide a combined dental appliance and turning device whereby the dental tools may be sharpened or operated on as desired when used in a dental office.

A still further object of the invention is the provision of a lathe structure in connection with a dental appliance, the arrangement being such that power may be supplied to the lathe structure from the dental appliance.

In the accompanying drawing:

Figure 1 is a side view showing an embodiment of the invention when set up as a dental appliance.

Fig. 2 is a sectional view through Fig. 1 on line 2—2.

Fig. 3 is a side view of the upper part of the device shown in Fig. 1 with the lathe attachment shown in position.

Fig. 4 is an enlarged perspective view of the lathe attachment.

Referring to the accompanying drawing by numerals, 1 indicates a stand of any desired kind which is provided with a starting box or rheostat 2 of any desired kind or usual construction used with dental appliances, connected to any suitable source of current. This rheostat is operated by a treadle or foot pedal 3, for turning on and off the current. The rheostat 2 is, of course, connected to the electric motor 4 by a suitable wire (not shown) whereby when the treadle 3 is depressed more or less corresponding current will flow through the motor for causing the same to operate at a greater or less speed. The motor 4 carries a driving pulley 5 accommodating the belt 6 which also passes over pulley 7 secured to the power shaft 8. This power shaft carries a second pulley 9 which accommodates the belt 10, which belt in turn passes over pulley 11 secured to the shaft 12, said shaft having a flexible section 13 which is connected to the instrument holder 14 whereby the instruments applied thereto may be rotated in the usual manner. The detail construction of the instrument holder 14 and the shaft 12 is old and well known and therefore will not need any detail description. The power shaft 8 carries a cable 15 of any desired kind near the outer end whereby a grinding or buffing wheel 16 may be applied thereto, or in fact any instrument may be applied instead of the buffing wheel. In Fig. 3 a chuck 17 has been applied which operates with the lathe structure 18 shown in Fig. 4 and hereinafter fully described. The shaft 8 and the motor 4 are both mounted on the table 19 which is supported by the standard 1, said table also accommodating a pivotally mounted bracket 20 which carries a rotatable auxiliary table 21 having a drawer 22 and side pieces 23 and 24. Beneath the side piece 23 is an auxiliary side piece 23′. The auxiliary side piece 23′ is preferably solid, while the side piece 23 is provided with apertures 25 as shown in Fig. 2 so that articles may be placed in said apertures and be supported by the auxiliary side piece 23′. The side piece 24 is provided with a depression 26 having extra end depressions 27 and 28 for receiving extra long instruments whereas the main depression 26 receives shorter instruments. It is, of course, understood that the top of the auxiliary table 21 may receive instruments or any desired article used either in the practice of dentistry or used in connection with the lathe structure 18 as shown in Fig. 1.

When it is desired to use the shaft 8 as a driving member for the wheel 16 or some other tool the parts may be connected up as shown in Fig. 1, or the belt 10 may be removed. Preferably when the lathe structure 18 is to be used, as for instance by an itinerant jewelry shop or a regular fixed jewelry shop, this belt is removed in order not to wear out the bearings of shaft 12 and also to reduce the power necessary to operate the device. To mount the lathe structure 18 in place the end of the lathe carrying the aperture 41 is placed beneath the table 19 as shown in Fig. 3 and screw 40 passed through the aperture 41 and screwed into the table 19, or if desired a block secured to the table. This provides a pivotal mounting for the lathe so that it may extend as shown in Fig. 3, or may be swung

around out of the way as illustrated in Fig. 2. When in use, however, it is positioned as shown in Fig. 3 and the winged screw 30 is used to clamp the parts against any swinging movement. It will be noted that the winged screw 30 extends through the slot 29 so that when it is desired to swing the lathe to one side this screw is merely loosened and the parts swung to one side, and to again use the lathe it is swung to the position shown in Fig. 3 and screw 30 tightened so as to firmly clamp the lathe against accidental movement. When in the position shown in Fig. 3 it will be noted that the notch 29 is positioned astride the winged screw 30 so that the depression 31 in the rotatable member supported by the tail stock 32 is opposite the center of the chuck 17. The lathe structure is then in condition for operation, and it will be observed that this lathe structure is provided with a feed screw 33 having a thumb member 34 whereby the carriage 35 may be moved back and forth. This carriage has a screw 36 operated by the thumb member 37 for shifting the tool rest 38 back and forth transversely of the lathe frame 39. The tool rest 38 is provided with a bolt 42 having a wing nut whereby the tool supporting member 43 may be clamped in any desired position and the tool gripping member 44 therefore held as desired, or if preferred instead of using the gripping member 44 the tool may be fitted into the aperture in the member 43 instead of the gripping member and the tool directly clamped in place by the clamping screw 45. These various details of the gripping member and supporting member 43 and associate parts may be varied without departing from the spirit of the invention. When the lathe structure is not desired the wing screw 30 may be loosened and the lathe members 39 swung out of the way, of the lathe member and the parts carried thereby may be entirely removed. The chuck 17 also may be removed or left in place as desired. It will be observed that the shaft 8 carrying the chuck 17 is supported by the platform 19 and by a bracket 46 secured to the platform, said bracket being provided with an upper portion or extension 47 for supporting the shaft 12. A lamp 48 is provided with a suitable handle 49 and is pivotally mounted at 50 on bracket 46 whereby the dental work may be illuminated at any time, while the work on the lathe structure may be illuminated.

What I claim is:

1. In a dental appliance for itinerant dentists, a standard formed with a platform, an electric motor mounted on the platform, means arranged adjacent the base of the standard for controlling the flow of electricity to the appliance, a power shaft supported on the platform, means for connecting the motor with the power shaft for rotating the power shaft, a bracket connected with the platform, a dental tool supporting shaft carried by said bracket, a belt for transmitting power from said power shaft to said dental tool carrying shaft, and means on the end of the power shaft for receiving a tool.

2. A device for itinerant workmen comprising means which may be used as a dental grinding device, and means connected to the same source of power and supported by the same standard acting as a lathe, said means acting as a lathe being formed with a swinging frame having an adjustable carriage.

3. In a device of the character described, a standard, a platform arranged on the standard, a lathe structure formed with a frame member having a notch and an aperture adjacent the notch, a screw extending through said aperture into said frame for pivotally mounting the frame in the platform, a second screw adapted to fit in said notch for clamping said frame against swinging movement, a movable carriage arranged on said frame, and a tail-stock arranged on said frame coacting with said carriage.

4. In an itinerant tool outfit of the character described, a standard, a table supported by said standard, a bracket pivotally connected with said table, an auxiliary table pivotally mounted on the bracket, said auxiliary table being provided with extending projections formed with tool receiving openings, and rotatable dental tool receiving means supported by said table.

GILDARDO VELILLA M.

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