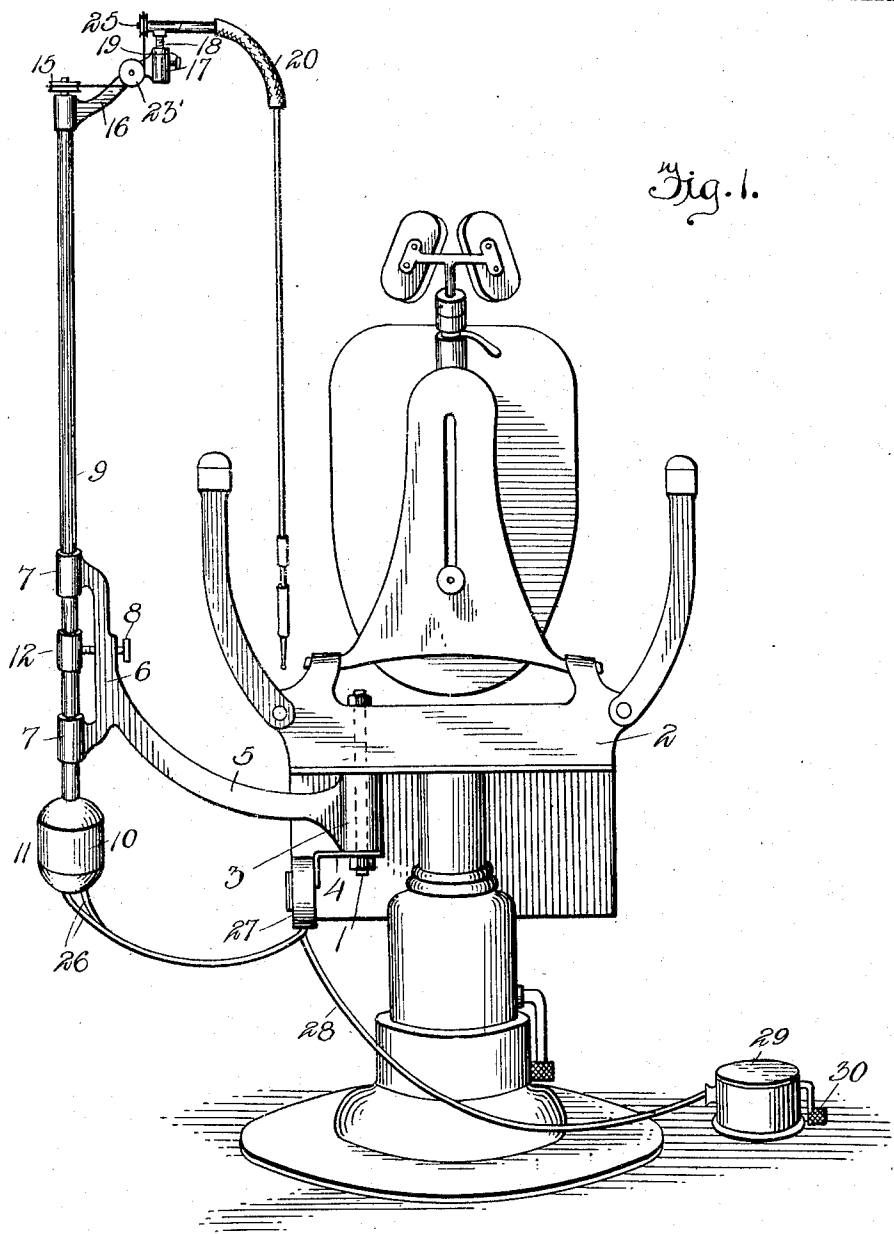


P. A. KANOUSE.
DENTAL APPARATUS.
APPLICATION FILED OCT. 6, 1909.

980,422.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.



WITNESSES
G. M. Spring.
A. H. Clarke.

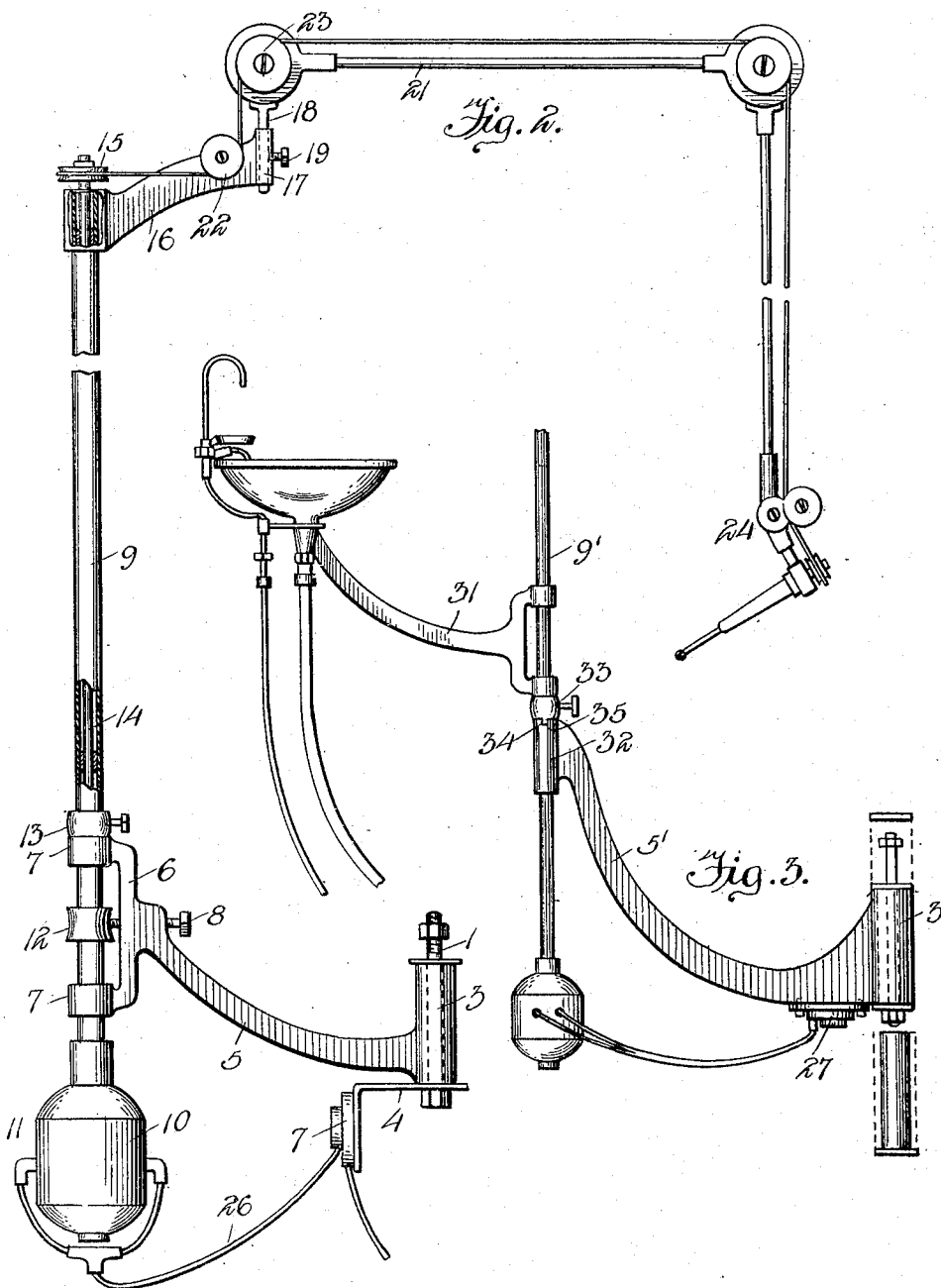
INVENTOR
Peter Arnold Kanouse,
by David D. Moore
his Attorney

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UNITED STATES PATENT OFFICE.

PETER ARNOLD KANOUSE, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO J. GEORGE KANOUSE, OF LOS ANGELES, CALIFORNIA.

DENTAL APPARATUS.

980,422.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed October 6, 1909. Serial No. 521,340.

To all whom it may concern:

Be it known that I, PETER ARNOLD KANOUSE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Dental Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

My present invention relates to improvements in dental apparatus, and has special reference to an improved construction of engine and mountings, whereby the same is always conveniently located at the chair, so as to permit of the easy use of the dental tools, the motor being preferably an electric motor, removably attached to a chair, and provided with a novel arrangement of flexible shaft carrying means, and control, all of which will be more particularly set forth.

To clearly appreciate my invention, attention is invited to the accompanying drawings, in which:—

Figure 1 is a perspective view of a dental chair with my apparatus installed. Fig. 2 is an enlarged detail view of the motor, its support, and the dental tool. Fig. 3 is a view illustrating the convenient supporting of a cuspidor.

Referring to the drawings:—The numeral 1 designates a bolt, which is secured to the dental chair 2, and carries the sleeve 3, and the right angled bracket 4. The sleeve 3, carries an arm 5, whose outer end is provided with the frame 6, carrying the two alined collars or sleeves 7, and the set-screw 8. This sleeve 3 and its parts are the usual cuspidor support, but it is my intention to employ it to support the hollow vertical standard or post 9, to whose lower end is attached the motor casing 10, whereby the electric motor 11, is conveniently supported. In order to hold the standard or post in proper position, the collar 12 is engaged by the set-screw 8, and the adjustable collar 13 rests upon the upper one of the sleeves 7. Connected to the shaft of the motor and adapted to pass upwardly through the standard or post 9, is the vertical shaft 14, upon whose upper end I mount a grooved wheel 15. Upon the upper end of the

standard or post, I swivelly mount the bracket and arm 16, which carries the vertical sleeve or journal 17, for the reception of the standard 18, which is held in place by means of the set screw 19. As shown in Fig. 1, this standard may carry the flexible shaft carrying sleeve 20, or as shown in Fig. 2, it may carry the standard-all-cord arm 21, these two standard forms being shown in operative position with my invention.

In employing the all-cord system, the cord is passed around the wheel 15 and upon both sides of the bracket and arm 16, under the two groove wheels 22, and over the two wheels 23, and passing along to properly operate the tool holder 24; while when employed to operate a flexible shaft, as shown in Fig. 1, the cord passes over the two wheels 23', and over the single grooved wheels 25, which is secured to the inner end of the flexible shaft.

In order to control the operation of the motor, at pleasure, I connect the two wires 26, to the resistance box 27, which is secured to and carried by the right angled bracket 4, the wires 28, connecting the resistance box to the controller 29, which is provided with the foot-lever 30, by means of which the operator may open or close the motor's circuit to stop or start the motor. The controller may be either connected to an electrical power circuit or batteries, as may be most convenient.

By referring to Fig. 3, it will be seen that the standard or post 9, may be used as a support for the cuspidor supporting bracket 31, and I can also support the usual bracket table arms, whereby the various tools are made more accessible.

I may employ a modified form of support for the resistance box 27', which in this instance is mounted upon the underside of the pivoted or swiveled sleeve 3', whose arm 5' carries a single sleeve 32, in which is secured the standard or post 9', the said post 9', being held against turning therein by means of the collar 33, whose lug 34 fits in the recess 35 of the sleeve 32, a set-screw 35 holding the collar 33 at the proper adjustment.

What I claim, as new, is:—

In combination with a dental chair, of a bracket swivelly connected thereto, a vertical

hollow standard adjustably mounted in the
outer end of said bracket, a motor bodily
supported by and carried upon the lower
end of the standard, a shaft extending
5 through the standard and connected to the
armature of the motor, and a tool operably
connected with the upper end of the shaft.

In testimony whereof I affix my signature
in presence of two witnesses.

PETER ARNOLD KANOUSE.

Witnesses:

HERMINA KOSTER,
JOHN G. KANOUSE.