

A. W. BROWNE.  
 INDEPENDENT STANDARD FOR SUPPORTING DENTAL ENGINES.  
 APPLICATION FILED DEC. 7, 1911.

1,063,650.

Patented June 3, 1913.

2 SHEETS-SHEET 1.

FIG. 1.

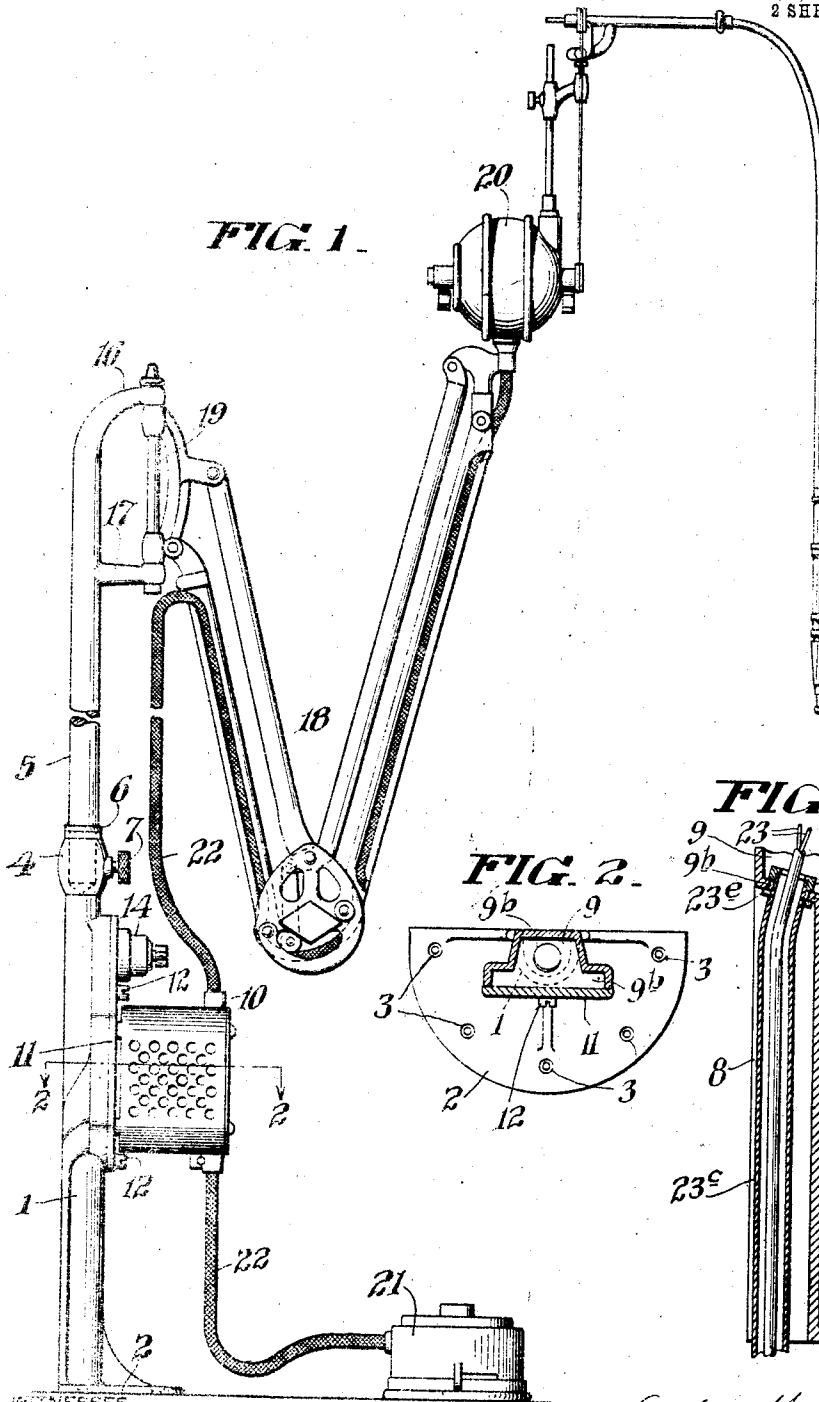


FIG. 2.

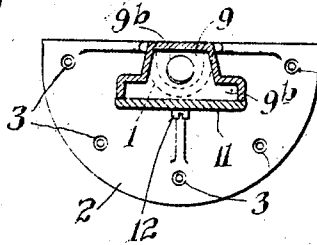
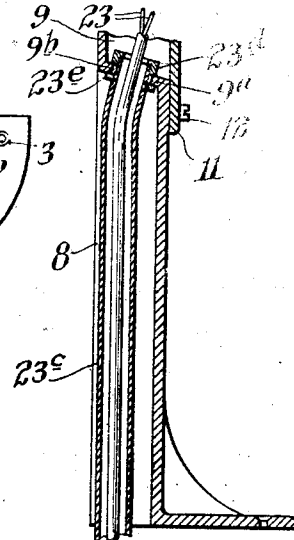


FIG. 5.



WITNESSES  
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2 SHEETS—SHEET 2.

FIG. 6.

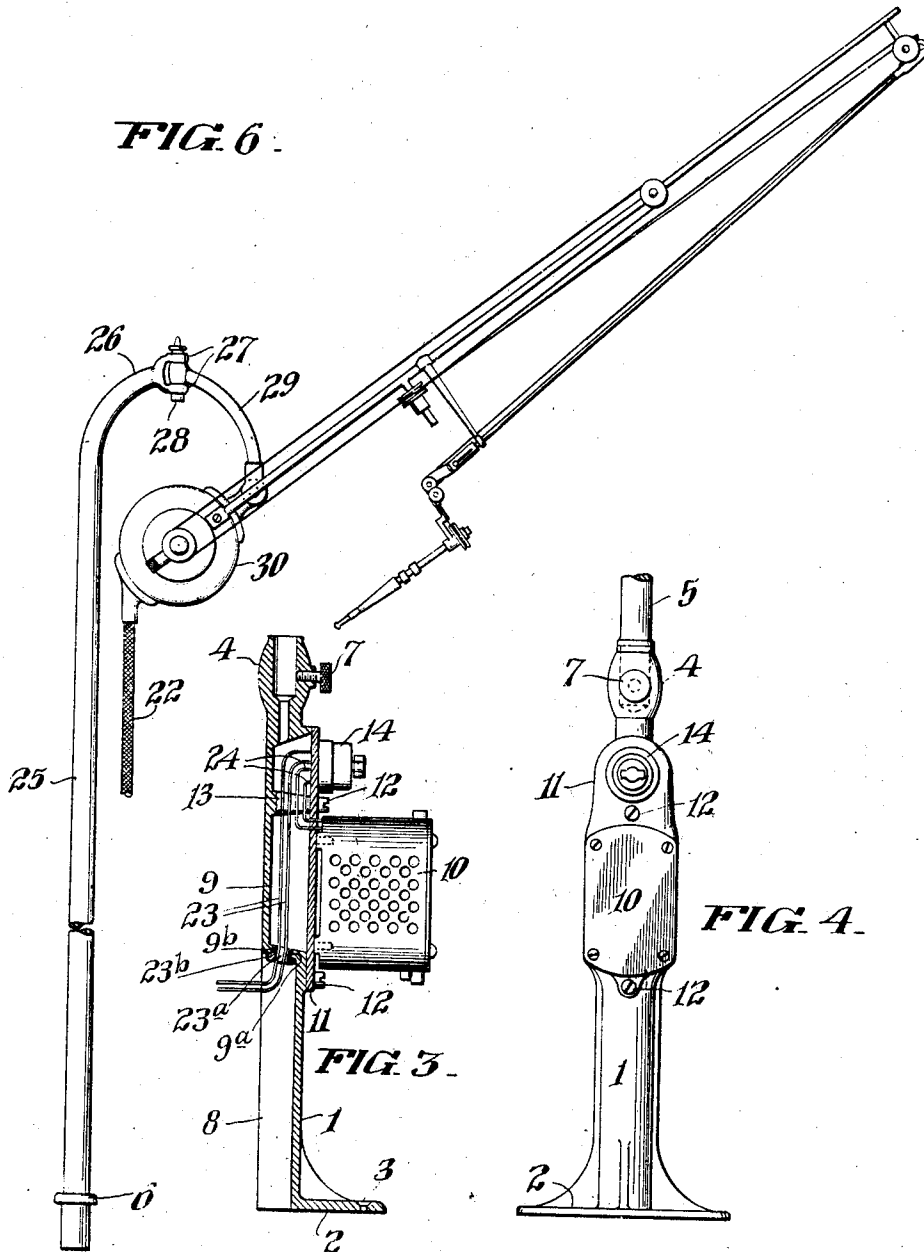


FIG. 4.

FIG. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

ARTHUR W. BROWNE, OF PRINCE BAY, NEW YORK, ASSIGNOR TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

INDEPENDENT STANDARD FOR SUPPORTING DENTAL ENGINES.

1,063,650.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed December 7, 1911. Serial No. 664,353.

*To all whom it may concern:*

Be it known that I, ARTHUR W. BROWNE, a citizen of the United States, and a resident of Prince Bay, in the county of Richmond, State of New York, have invented a certain new and useful Independent Standard for Supporting Dental Engines, of which the following is a specification.

My invention relates to standards and while it may be used for various purposes I have illustrated it as supporting different forms of dental engine brackets.

In many of the modern fire proof buildings, the window frames are of metal rendering it impracticable to secure the dental brackets thereto for supporting the dental engines as heretofore, and as frequently there are rules in force with respect to many of such buildings prohibiting the securing of such brackets to the wall, it has become a serious problem as to how best to support the dental brackets in convenient positions for operation and use by dentists in their work. For the purpose of meeting this situation and overcoming the difficulty presented, I have designed an independent standard for use in supporting brackets for dental engines whether such brackets be of one character, such as folding brackets, or of any other character, such as are known upon the market as swivel brackets, which standard is of such a construction that it may be placed flat against a wall or other upright structure.

A further object of my invention is to provide a standard having means whereby the wires for supplying electric current to a motor supported upon the standard may be conducted to a resistance box supported upon said standard without being exposed and unprotected in the room. Such construction contributes to the neatness in appearance and also provides other advantages.

My invention comprehends other objects, advantages and features of construction than those which have been mentioned which will be referred to in the detailed description thereof which follows or else will be apparent therefrom.

In order that my invention may be clearly and fully comprehended and understood, reference should be had to the accompany-

ing drawings forming a part thereof and in which,—

Figure 1 is a side elevation of a standard embodying my invention and a folding bracket and dental engine supported thereby; Fig. 2 is a transverse section of the standard on the line 2—2 of Fig. 1 with the resistance box removed; Fig. 3 is a longitudinal sectional view from front to rear of the lower member of the standard; Fig. 4 is a front elevation of the standard but with the top portion thereof broken away; Fig. 5 is a longitudinal view from front to rear of the lower member of the standard showing an electric wire conduit connected thereto; and Fig. 6 is a side elevation of the top member of a standard showing a modified construction and also showing a swivel bracket and dental engine supported thereby.

Referring to the drawings,—1 designates the lower member of a standard having a base 2 which is adapted to rest upon the floor or other support for the standard. The said base, in the construction as illustrated, is of the shape of a half circle but, as already indicated, the size of the base may be increased or diminished within limits, and it should also be understood that the shape thereof may be changed without departing from my invention. The base is provided with holes 3 for the reception of holding means for securing the standard in position upon the floor or other support. The upper end of the member 1 of the standard is provided with a socket 4 which is adapted to receive the lower end of the upper member 5 of the standard. The lower end of the upper member 5 of the standard is provided with a collar 6 which rests upon the upper end of the lower member 1 of the standard surrounding the socket opening. The binding screw 7 is employed to fasten and hold the lower end of the member 5 in the socket 4. Preferably the lower part of the member 1 of the standard is hollowed out in the rear as indicated at 8 in Fig. 3 so that such lower part is in cross section of the shape of the segment of a circle. It may, however, be of any other suitable shape in cross section which may be desired. The member 1 also includes a box-like portion 9 which is located between the hollowed out portion 8

and the upper end of such member. The rear wall of the box-like portion 9 is flat and is in alinement with the rear edges of the hollowed out portion 8. The spaces in the member 1 at 8 and 9 are separated from each other by a web 9<sup>a</sup> having a screw-threaded opening 9<sup>b</sup> therein.

A resistance box 10 is secured to a plate 11 which in turn is secured to the front side of the member 1 over the open side of the box-like portion 9 thereof by means of screws 12. The uppermost screw 12 enters a post 13 which projects from the bottom of the box-like portion 9 as is clearly shown in Fig. 3 of the drawings.

14 designates a snap switch secured to the plate 11 at the upper end thereof.

The upper end of the member 5 of the standard shown in Fig. 1 is provided with a laterally bent or extended portion 16 and at a point intermediate its ends with an arm 17 extending laterally in the same plane as the extended portion 16. The folding bracket, designated as a whole by the reference number 18, is pivoted to swing horizontally upon the vertical pivot 19 which is supported in holes formed in the outer ends of the parts 16 and 17. A dental engine 20 and other operating parts are supported upon the outer end of the said bracket.

21 designates a controller having electrical connection through the conductor 22 and the resistance coils (not shown) in the resistance box 10 with the dental engine 20. The current for operating the engine is supplied through the wires indicated at 23. As illustrated in Fig. 3 these wires 23 may enter the box-like portion 9 of the member 1 through an opening 23<sup>a</sup> in an insulating plug 23<sup>b</sup> which is secured in the screw-threaded opening 9<sup>b</sup>. In Fig. 5 I have shown the wires 23 as entering the box-like portion 9 of the member 1 through a wire conduit or pipe 23<sup>c</sup> of lead or other suitable material which extends upwardly through the floor or other support upon which the standard rests and through the hollowed out portion 8 of the member 1. The upper end of the said pipe or conduit 23<sup>c</sup> is screw-threaded and projects through the opening 9<sup>b</sup> in the web 9<sup>a</sup> and is secured thereto by means of a screw-threaded cap 23<sup>d</sup> which engages the screw-threaded end of the said conduit or pipe above the web 9<sup>a</sup> and a binding nut 23<sup>e</sup> below the said web. The wires 23 extend through the plate 1 and have connection with the snap switch 14. The latter is electrically connected by means of the wires 24 with resistance coils in the resistance box 10.

In Fig. 6 I have shown an upper member of a standard of modified construction which is particularly adapted for supporting what is known generally in the trade as a swivel bracket employed for supporting

a dental engine. In this construction, 25 designates the upper member of the bracket the upper end of which is extended laterally as indicated at 26 and is bifurcated so as to provide ears 27 so as to support a vertical pivot 28 upon which an arm 29 is pivoted to swing horizontally. Upon the outer end of said arm a dental engine 30 and parts connected thereto of known construction are supported. The said engine is operated by means of electricity supplied through the conductor 22 in the manner illustrated in the remaining figures of the drawings.

When the device is in operation, the switch at 14 is in position to close the circuit so that current may pass through the circuit including the current supply wires 23, the wires 24, the resistance coils, the controller, the conductor 22, and the engine or motor on the bracket. The passage of current through these parts is controlled by the controller 21 in a known manner.

The box-like part 9 which is closed by the plate 11 provides a convenient space for the reception of the ends of the electric supply wires. By removing the plate 11 the said wires become accessible and may be readily connected with parts of the snap switch 14 or with any other part of the structure as desired.

Having thus explained the nature of my said invention and described some of the forms of construction in which it may be embodied, although without attempting to set forth all of the forms in which it may be made, what I claim is:—

1. A standard for supporting a dental engine bracket, the lower end of which standard is provided with an integral base having a straight rear edge and which is adapted to be secured to the floor or other support and the rear side of the lower portion of the said standard being hollowed out and the rear edges of the said standard being in alinement with the straight edge of the said base and the front side of the said standard above the hollowed out portion upon the rear side being also hollowed out as described.

2. A standard adapted for supporting a dental engine bracket which standard rises from a base which is adapted to be secured to a floor or other suitable support and the rear side of the lower part of said standard being hollowed out and the portion thereof immediately above the said hollowed out part being hollow also to form a receptacle, the said hollow portions being separated by a web having an opening therethrough through which pass electric supply wires having electrical connection with dental engine mechanism.

3. A standard for supporting dental engine brackets, the lower end of which is provided with a base which is adapted to

be secured to the floor and the rear side of the lower part of the said standard being hollowed out and the front side of the upper portion thereof being also hollowed out, the said hollowed out portions being separated by a web and the said standard being provided with means adapted to support a resistance device.

4. A standard for supporting a bracket and a dental engine carried by said bracket which standard includes a lower member having a base adapted to be secured to the floor or other support and also having a socket in its upper end and an upper member which is secured in said socket and the lower end portion of the said lower member being hollowed out upon its rear side and the upper portion of the said lower member being hollowed out upon its front side, the said two hollowed out portions being separated by a web having an opening there-through for the purpose stated and the said lower member also having means secured thereto for supporting a resistance device.

5. A standard for supporting a bracket

and a dental engine carried by said bracket which standard includes a lower member and an upper member detachably connected thereto, the said lower member being provided with a base for securing the said bracket to the floor or other support and the rear side of the lower part of the said lower member being hollow and the upper portion of the said lower member being enlarged and having a box-like part formed upon its front side and said lower member having a web extending transversely thereof and separating the hollow and box-like parts, the said web being provided with an opening having an insulating member secured therein through which pass electric supply wires having electrical connection with the said dental engine.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 25<sup>th</sup> day of November, A. D. 1911.

ARTHUR W. BROWNE.

In the presence of—

GEORGE H. BROWNE,

ALBERT A. SIEVERS.