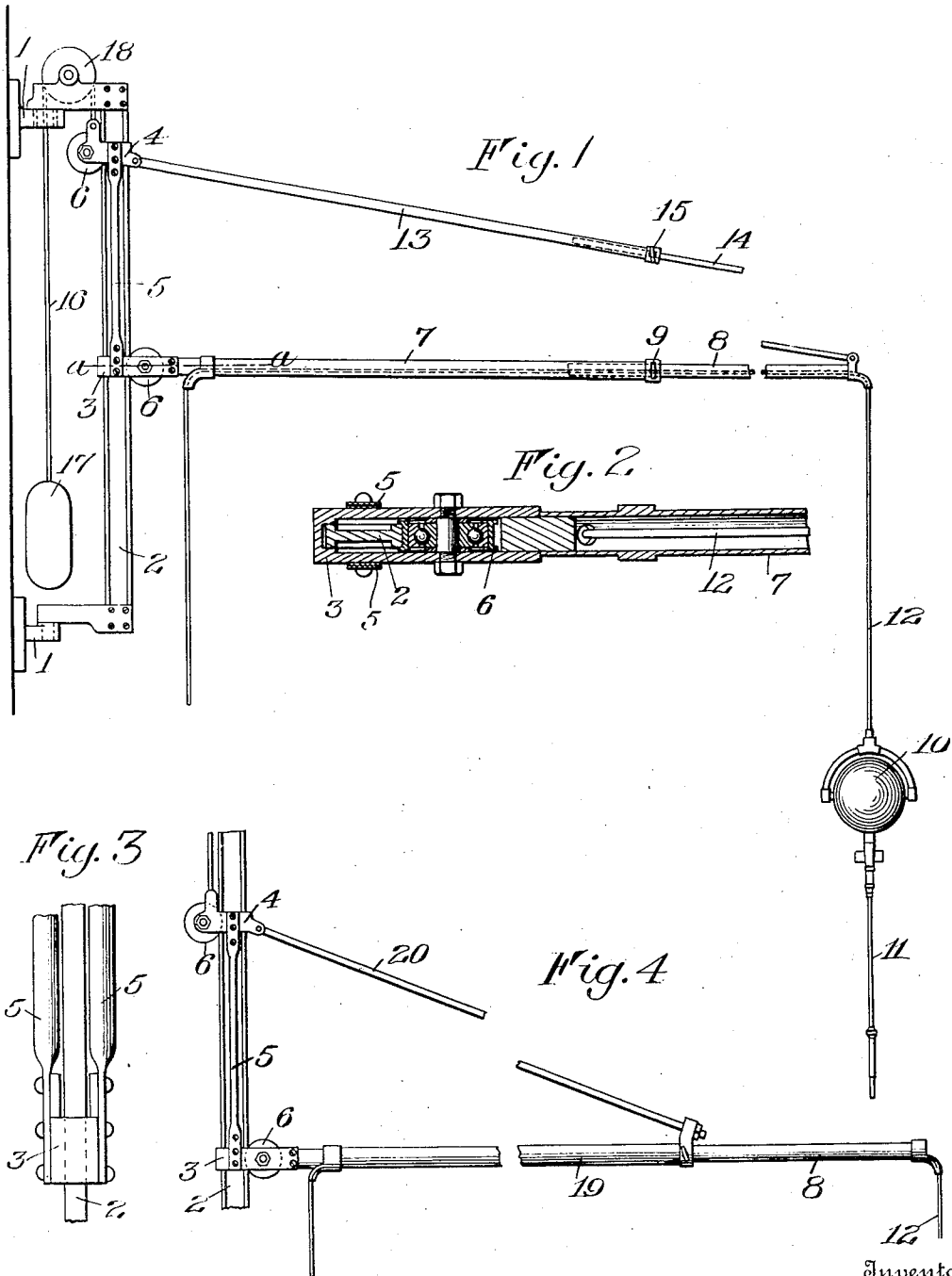


O. H. PIEPER.
BRACKET SUPPORT FOR DENTAL ENGINES.
APPLICATION FILED SEPT. 15, 1911.

1,054,028.

Patented Feb. 25, 1913.



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OSCAR H. PIEPER, OF ROCHESTER, NEW YORK.

BRACKET-SUPPORT FOR DENTAL ENGINES.

1,054,028.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed September 15, 1911. Serial No. 649,539.

To all whom it may concern:

Be it known that I, OSCAR H. PIEPER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Bracket-Supports for Dental Engines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to improvements in dental engines, being especially adaptable for use in connection with a mechanism of the type which embodies a wall bracket arranged for swinging movement about a vertical axis, and constituting a mounting for a motor and hand piece for the various implements and tools to be used, and it has for its object to provide a novel means for elevating and lowering the motor and hand piece to accommodate the different needs of the operator.

A further object of the invention is to enable the motor and hand piece to be supported on an arm which may or may not be extensible, as desired, and which is, at the same time, capable of being bodily raised or lowered to change the position of the motor and hand piece.

Still another object of my invention is the provision of an improved construction for balancing the motor and hand piece in any one of its adjusted positions.

To these and other ends the invention consists 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: Figure 1 is a view in side elevation, with parts broken away, illustrating a dental engine bracket embodying the features of my present invention: Fig. 2 is a sectional view on the line *a-a* of Fig. 1: Fig. 3 is a detail view in elevation of a portion of the carriage, and Fig. 4 is a detail view in elevation, with parts broken away, of a modified form of the invention.

Similar reference numerals throughout the several figures indicate similar parts.

In the present construction, which illustrates a preferred embodiment of my invention, there is provided a bracket, pivotally mounted on the supports 1, so as to swing about a vertical axis, said bracket including

a guide 2, preferably in the form of an I-beam, as shown. Arranged for vertical movement on the guide 2 is a carriage, which embodies a lower member 3, upper member 4 and connecting pieces 5 secured to the upper and lower members, respectively, and preferably formed as shown in the drawings. The upper and lower members of the carriage are provided with anti-friction rollers 6 which engage the opposite edges of the guide.

Mounted on the lower member 3 is the supporting arm for the motor and hand piece, preferably embodying the telescoping members 7 and 8, a thumb screw 9 being provided to secure the supporting arm in desired adjusted position. The motor is designated at 10, and the hand piece at 11, these being suspended on the cable 12 which preferably extends through the supporting arm, the latter being hollow for this purpose, and carries the wiring for the motor. The supporting arm may be strengthened, as in the present embodiment, by means of a bracing member which embodies telescoping parts 13 and 14 which are pivotally connected, respectively, to the upper member 4 of the carriage and to the telescoping member 8 of the supporting arm; the bracing member being held in adjusted position by means of the thumb screw 15.

The carriage on which the supporting arm is mounted may be balanced in any suitable manner, and to this end, in the present embodiment, there is provided a cable 16 connected to the upper member 4 of the carriage and carrying a counter-balancing weight 17 at its lower end, the cable being suitably guided by pulley 18 which is arranged at the top of the bracket.

In a modified form of the invention, as shown in Fig. 4, I may construct the supporting arm of a single piece, as indicated at 19, connection being had with the upper member of the carriage by means of the bracing member 20.

While I have shown and described the invention in its preferred embodiments, it is to be understood that I am not limited to the particular form and arrangements of parts herein disclosed, the invention being susceptible of other departures and changes, as comprehended by the claims hereinafter following.

I claim as my invention:

1. In a dental engine, the combination

with a motor and hand piece, of a vertically disposed guide, a supporting arm for the motor and hand-piece arranged for movement on said guide, and a counter-balance for holding the supporting arm in adjusted position.

2. In a dental engine, the combination with a motor and hand-piece, of a vertically disposed guide, a carriage movable on said guide, a supporting arm for the motor and handpiece mounted on the aforementioned carriage, and a counterbalance connected to the carriage.

3. In a dental engine, the combination with a motor and hand-piece, of a vertically movable carriage, a supporting arm for the motor and handpiece mounted on the aforementioned carriage, and a bracing member connecting the carriage and the supporting arm.

4. In a dental engine, the combination with a motor and handpiece, of a vertically movable carriage, an extensible supporting arm for the motor and handpiece mounted on the aforementioned carriage, and a rigid extensible bracing member connecting the carriage and the extensible supporting arm.

5. In a dental engine, the combination with a bracket pivoted on a vertical axis, of a guide supported on the bracket, a carriage movable on said guide, a motor and hand piece, an extensible supporting arm for the motor and hand piece mounted on the carriage, and a rigid extensible bracing member connecting the carriage and the supporting arm.

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Witnesses:

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