

# **Improvements in and relating to what are called or known as dental engines / [Arthur Gillett Taylor].**

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### PROVISIONAL SPECIFICATION.

#### Improvements in and relating to what are called or known as Dental Engines.

I, ARTHUR GILLET TAYLOR of 29 Poland Street London, W. Dental Manufacturer, do hereby declare the nature of this invention to be as follows :—

My invention relates to what are known in mechanical dentistry as dental buring engines briefly denominated dental engines. Hitherto a dental engine has comprised or consisted of the following main elements namely :—Driving wheel surmounted by the upper part of engine including ratchet head, flexible wrist, hand piece &c.

Now in order to simplify and reduce the cost and construction of dental buring engines, I in accordance with my present invention, dispense with the upper parts of the engine above enumerated, with the exception of the handpiece, and I construct my improved simplyfied dental engine in the following manner,—that is to say :—The driving cord from the usual grooved driving wheel is conducted to two small pulleys arranged on a short stem piece above the driving wheel, and thence to a small pulley with which the stem of the handpiece is provided.

It will be found in practice that apart from the simplified cost of construction, dental engines constructed in accordance with my invention will possess the following amongst other additional advantages namely :—Great steadiness of rotation, less friction, and the avoidance of “backlash,” possessing the advantage also of great portability.

Dated this 17th day of March 1893.

JAMES STEVENSON,  
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Agent for Applicant.

### COMPLETE SPECIFICATION.

#### Improvements in and relating to what are called or known as Dental Engines.

I, ARTHUR GILLET TAYLOR of 29 Poland Street, London, W. Dental Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

My invention relates to what are known in mechanical dentistry as dental burring engines briefly denominated dental engines. Hitherto a dental engine has comprised or consisted of the following main elements, viz :—Driving wheel surmounted by the upper part of engine including ratchet head, flexible wrist, hand piece &c.

Now in accordance with my invention a general elevational view of which is shewn in Fig. 1 of the accompanying sheet of drawings I dispense with the above enumerated upper parts of the engine with the exception of the hand piece *a*, and I construct my improved simplified dental engine in the following manner ; that is to say :—The driving cord *b* from the usual grooved driving wheel *c* is first conducted to two small pulleys *d d* thence to two other small pulleys *e, e* and afterwards to the pulley *f* fitted in the hand piece *a*, which pulley *f* drives the burring

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tool *g*. The above referred to pulleys are mounted upon an upright standard *h* (seen only in Figure 2) secured to the top of the dental engine. At the extreme end of the standard I provide a loop *h*<sup>1</sup> for holding the hand piece and burring tool when not in use (as in Fig. 1).

Figure 2 is a detached view of the upper part of the device above line A B 5 Fig. 1 shewing the hand piece with burring tool in position assumed when the device is being used.

It will be found in practice that apart from the simplified cost of construction, dental engines constructed in accordance with my invention will possess the following amongst other additional advantages, *viz.*:—The hand piece, with the burring tool, being driven direct from the driving wheel, can be used at any angle from the dental engine; I am also able to ensure great steadiness of rotation, less friction and the avoidance of "backlash"; with the further advantage of great portability.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is,

1. In dental engines the employment of the upright standard *h*, and pulleys *d*, *d*; *e*, *e*, and *f*, substantially as above described.
2. Improvements in dental engines substantially as above described.

Dated this 20th day of December 1893.

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