

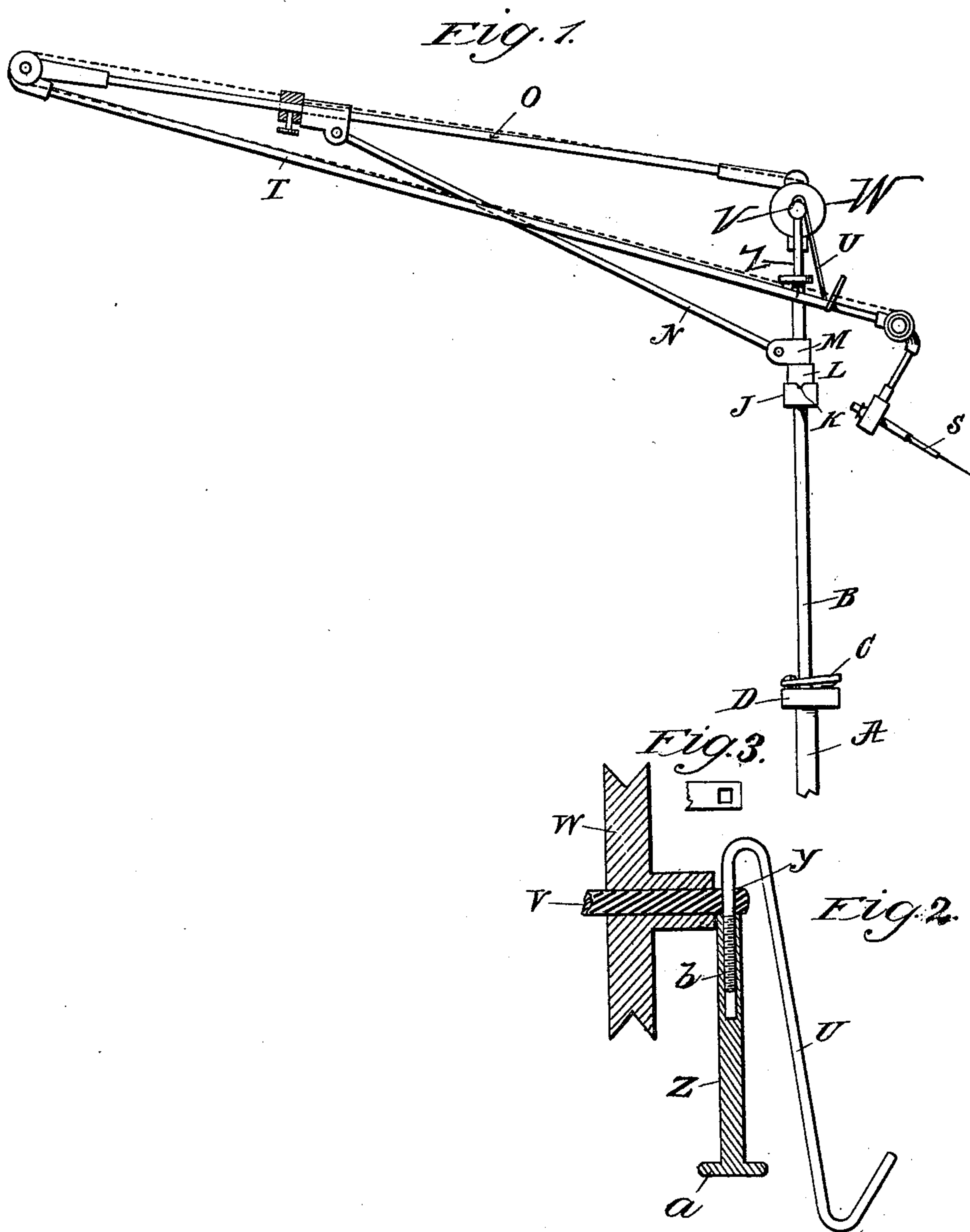
No. 624,137.

Patented May 2, 1899.

C. S. WARDWELL.  
DENTAL ENGINE.

(Application filed Jan. 14, 1896.)

(No Model.)



Witnesses  
Edward C. Rayburn.  
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# UNITED STATES PATENT OFFICE.

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## DENTAL ENGINE.

SPECIFICATION forming part of Letters Patent No. 624,137, dated May 2, 1899.

Application filed January 14, 1896. Serial No. 575,479. (No model.)

*To all whom it may concern:*

Be it known that I, CLAISON S. WARDWELL, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dental Engines, of which the following is a specification.

My invention relates to an improvement in dental engines; and it consists in a novel and useful construction of a certain hook which acts as a support for the tool and the arm with which it is connected, as is hereinafter set forth.

In the drawings, Figure 1 illustrates an elevation of those parts of a dental engine with which my invention is associated. Fig. 2 illustrates a detail in vertical section of a hook for the support of the drill and the supporting-arm therefor. Fig. 3 illustrates a detail of the end of the pulley-shaft with which the devices shown in Fig. 2 engage.

A is the standard of the engine. B is the tension-rod which telescopes within it.

C is the clutch mechanism supported on a plate or table D on the end of the standard A, whereby the rod B is held at such elevation as desired.

J is a block on the rod B, having a notch K in it, with which engages a corresponding projection on a block L, which is attached to the sleeve M, to which is pivoted the brace N, which supports the arm O. By these means the arm O when not in use may be swung to one side until the projection on L engages with the notch in J, and thus the arm be prevented from swinging back again in the way of the operator. These features, however, form no part of the present invention, and are shown and described here merely because they coact to a certain extent with the tool and arm supporting hook herein claimed.

The device for supporting the tool S and

the swinging arm T, to which it is attached, above alluded to is a hook U. In the instance shown it is made to pass through the shaft V, on which the pulley W is mounted, and at the part marked Y, which passes through the shaft V, the hook U is squared, so that it will not change its position, but will always remain projecting from the adjoining parts in the manner shown, and in order that it may be drawn snugly down to its position and held firmly in place I prefer to employ a hollow and interiorly-threaded nut or spindle Z, having a button *a* on its end, with the threads of which the threaded end *b* of the hook U engages, so that upon screwing the parts together until the upper end of the spindle Z impinges against the side of the shaft V the hook will be drawn down snugly and held firmly in place. It thus performs two functions: First, it prevents the wheel W from moving laterally off from the shaft V, and it also acts as a support for the tool and tool-arm, as stated.

Having described my invention, I claim—

In a dental engine, the combination of a bent wire or like device, one end whereof passes through the shaft V on which the pulley W is mounted, a downwardly-extending hook formed on the other end of the said wire, and a hollow spindle or nut threaded to said wire to hold the same in place relative to the shaft, whereby the pulley is retained on the shaft and means are afforded for supporting the tool and its arm, for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 11th day of January, A. D. 1896.

CLAISON S. WARDWELL.

Witnesses:

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