B. M. WILKERSON.

Combined Instrument-Case and Dental-Engine.

No. 215,851. Patented May 27, 1879.

Fig. 1.

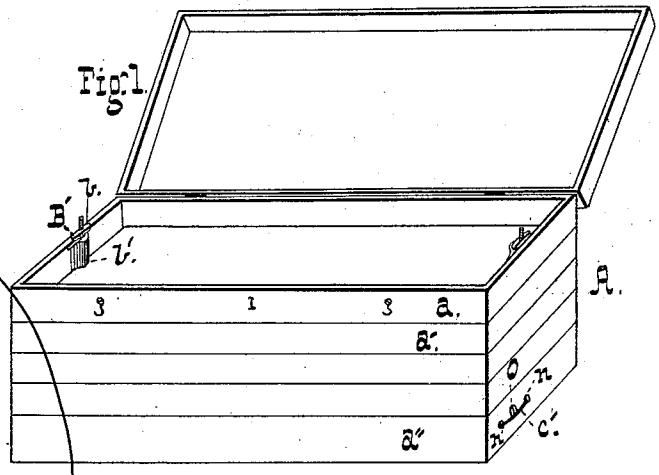


Fig. 2.

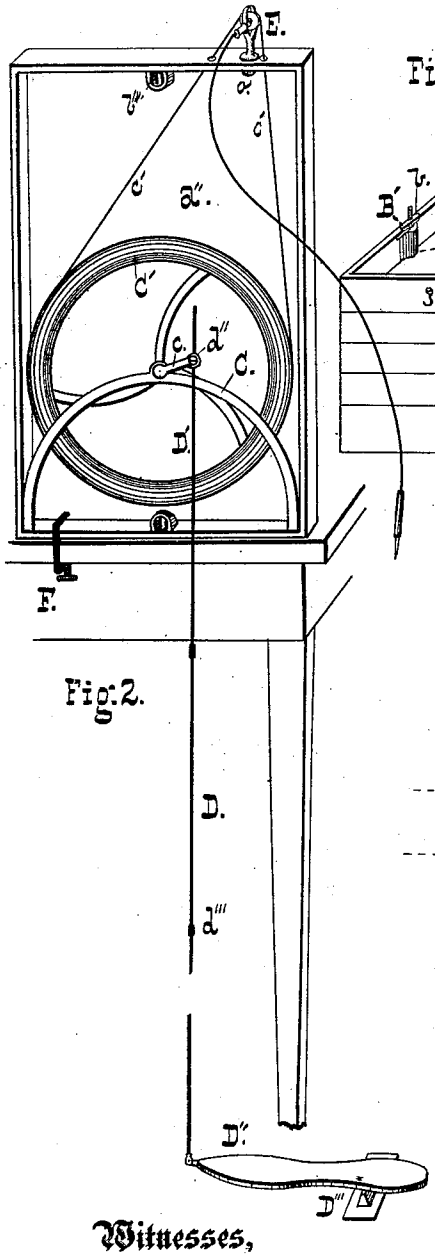


Fig. 3.

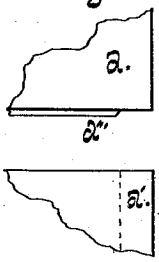


Fig. 5.

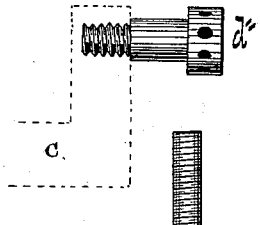


Fig. 6.

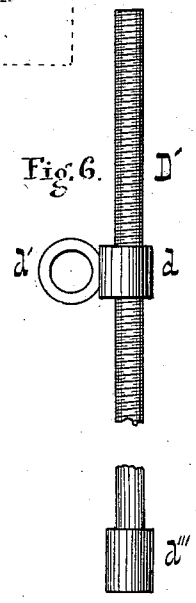
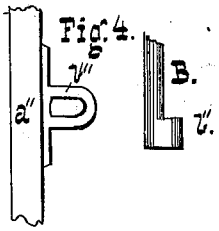


Fig. 4.



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BASIL M. WILKERSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN COMBINED INSTRUMENT-CASE AND DENTAL ENGINE.

Specification forming part of Letters Patent No. **215,851**, dated May 27, 1879; application filed July 26, 1878.

To all whom it may concern:

Be it known that I, BASIL M. WILKERSON, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Combined Instrument-Case and Dental Engine; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is perspective view of the case; Fig. 2, a similar view of the engine-compartment set up for use. Fig. 3 is a side elevation of one of the corners of a compartment, showing the device for insuring registration of the same when in juxtaposition. Fig. 4 illustrates the device for securing the compartments together. Figs. 5 and 6 are side elevations of parts of the treadle-rod.

The object of my invention is to furnish a device the want of which has long been felt in the profession, and especially by those members of it who reside and practice in the country, the said device consisting of a portable case adapted to contain every instrument needed in performing dental operations. Generically, the scope of my invention is thus expressed; but specifically it consists in sundry features and details of the device, which it is not here necessary to enumerate, as they are made the subject of claims based upon the following description.

In the accompanying drawings, A represents a case of convenient size—say, about fifteen by ten by ten inches—subdivided, as shown, into a series of compartments, *a a' a''*. Inasmuch as all of these except the lower one, *a''*, are simple trays, suitably upholstered in plush, for holding various instruments, such as forceps, mirrors, drill hand-pieces, &c., further description of them will be unnecessary other than to set forth the feature illustrated in Fig. 3. The bottom of each tray projects slightly below its sides, so as to enter the tray upon which it is placed, furnishing a ready means for insuring registration of the trays when placed together, as shown in Fig. 1. In order to secure them together I make use of the device illustrated in Fig. 4, in which *b'''* is a metallic lug, having an oblong aperture, as shown, and secured by means of screws on the inside of the end walls of the lower tray, *a''*. (See also Fig. 2.)

A rod, B, is furnished with a lug, *b''*, adapted to pass through the aperture in the lug *b'''*, and has an extension, B', at right angles to its length and just below the upper end of the rod, which is threaded for the attachment of the thumb-screw *b*. A lug, *b'*, is attached to either end wall of the upper tray, *a*, and the bottoms of the intermediate trays are perforated in line.

To secure the trays together they are placed in position. The rod B is inserted through the lug *b'*, the holes in the bottoms of the trays, and finally through the lug *b'''*. It is then turned at right angles, and secured by screwing the thumb-screw *b* home upon the lug *b'*, the hand-piece of the screw being left parallel to the side of the box. Upon closing and locking the lid, the edges of the same prevent the rotation of the thumb-screws and effectually obviate the possibility of rotating the rod B, so as to admit of the separation of the trays, without unlocking the case.

The tray *a''* contains the dental engine, which is constructed as follows: A metallic brace, C, is secured to the walls of the tray, and is furnished with a journal for the fly and driving wheel C'. A crank-arm, *c*, is attached the shaft of the latter, and is threaded for the insertion of the screw *d''* of the treadle-rod D D'. (See Figs. 5 and 6.) This rod is made in sections, which are adapted to be attached together by means of threaded ends and sockets *d'''*, in a well-known manner. These rods are preferably three in number and about one foot long, and one of them, D', is threaded for nearly its whole length, a sleeve, *d*, having an eye, *d'*, being screwed thereon. One of the rods is furnished with a hook for the attachment of a treadle, D'', and a clamp, P, serves to secure the tray *a''* upon an ordinary table.

In order to adjust the treadle mechanism, the tray *a''* being clamped in place, the crank-arm is made to point vertically downward, and, the rods D D' being screwed together, the treadle is attached and its front end allowed to nearly touch the floor. The sleeve *d* is then raised or lowered upon the rod D' until its eye *d'* comes opposite the threaded hole in the

end of the arm *c*, when the screw *d''* is inserted and screwed home.

A leather strip, D''', is attached to the under side of the treadle D'', by means of which it may be tacked to the floor, if desired.

The tray *a''* is perforated at *n n* and O, (see Fig. 1,) respectively, for the passage of the driving-belt *c'* and for the insertion of a screw-bolt, *o*, to sustain the pulley-stand E.

The device, as a whole, furnishes a case adapted to contain a complete dentist's outfit, including that indispensable and heretofore cumbrous and unwieldly article, the engine. It is adapted to supply the needs of country practitioners, who are frequently called upon to visit the residences of their patients, in that it furnishes all the requisite apparatus and instruments in a compact and readily portable form.

The engine may be readily and expeditiously set up and taken apart, and is an efficient and convenient article.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A portable dental engine having a treadle adjustably geared to its fly-wheel, adapting the engine for use at various heights, as described, in combination with mechanism for securing the engine for use to or upon a table or other convenient support, as and for the purpose described.

2. A portable case in which is mounted in suitable bearings the fly-wheel of a dental engine, the said case being adapted to contain the engine equipments, in combination with mechanism for securing the case for use to or upon a convenient support, substantially as described.

3. A dentist's instrument-case made in detachable compartments or sections, one of which sections contains a dental-engine fly-wheel, mounted in suitable bearings, in combination with mechanism for securing the case for use to or upon a convenient support, substantially as set forth.

4. The case A, consisting of two or more detachable trays, having, respectively, lugs *b'''* *b'*, in combination with the rod B, having head *b'*, and the thumb-screw *b*, as set forth.

5. The case A, consisting of two or more sections, detachably connected, and having projecting bottoms *a'''*, as described.

6. In combination with the treadle and crank the sectional threaded connecting-rod D', having sleeve *d*, adapted for attachment to the crank, substantially as described.

7. In combination with the engine-case *a''*, carrying the mounted fly-wheel of a dental engine, the adjustable connecting-rod having threaded end and sleeve *d*, substantially as set forth.

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