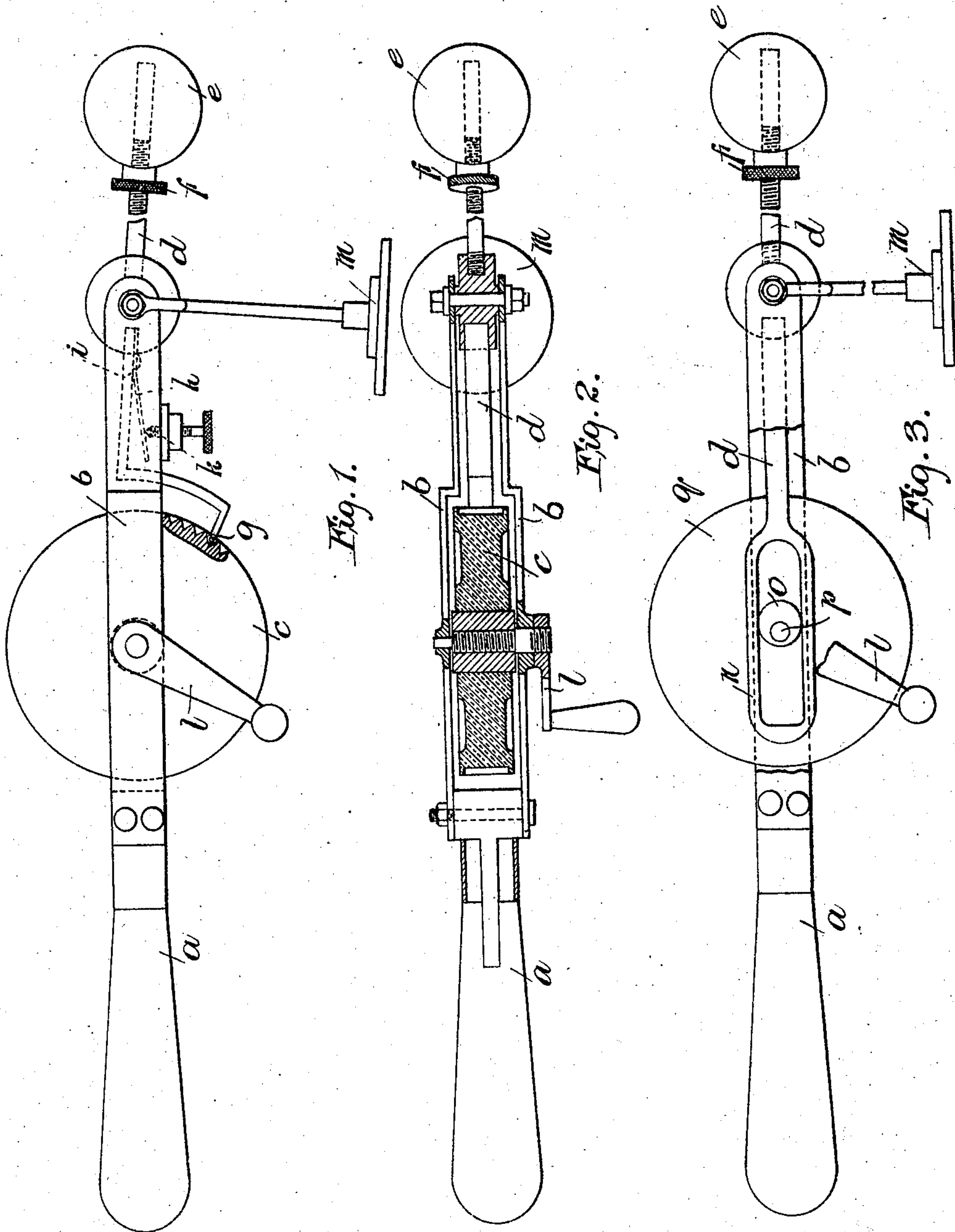


No. 847,654.

PATENTED MAR. 19, 1907.

J. VAN T. DANIELS.  
DEVICE FOR PRODUCING VIBRATIONS.  
APPLICATION FILED APR. 30, 1906.



WITNESSES

W. P. Burke

W. J. Donovan

INVENTOR

Jay Van T. Daniels

BY

Richard S. [Signature]

ATTY'S



# UNITED STATES PATENT OFFICE.

JAY VAN TUYL DANIELS, OF LONDON, ENGLAND.

## DEVICE FOR PRODUCING VIBRATIONS.

No. 847,654.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed April 30, 1906. Serial No. 314,573.

*To all whom it may concern:*

Be it known that I, JAY VAN TUYL DANIELS, a citizen of the United States of America, residing at Temple Chambers, Temple  
5 avenue, London, E. C., England, have invented certain new and useful Improvements in Devices for Producing Vibrations, of which the following is a specification.

This invention relates to devices for producing vibrations for massage and like purposes, the object being to provide a simple and inexpensive device which will produce the required vibrations and permit of the latter being regulated or varied in degree.

15 The invention consists in mounting a weight upon one end of a pivoted lever and adapting the other end to be rapidly oscillated by any suitable means, the lever being preferably influenced by an adjustable spring and the weight being also adjustable on the  
20 lever.

The accompanying drawings illustrate two forms of vibrating device according to the invention, Figures 1 and 2 being, respectively,  
25 an elevation and sectional plan of one form, and Fig. 3 an elevation of another form.

In carrying out the invention according to one mode, as in the application to a hand-operated device and as illustrated in Figs. 1 and  
30 2, a handle *a* is fitted with a fork comprising two plates *b*, spaced apart and having a toothed or serrated wheel *c* freely mounted between them, near the handle, and a lever *d* pivoted between them at the outer end. The  
35 outer arm of the lever is screw-threaded, and a weight *e*, such as a metal ball, is screwed onto the same and fixed in any adjusted position by a back nut *f* or the like. The inner arm of the lever *d* is preferably bent to conform  
40 somewhat to the periphery of the serrated wheel *c*, and it terminates in a small roller *g*. A flat plate-spring *h* projects from the boss *i* of the lever *d*, near the pivot, and abuts against an adjusting-screw *k*. The spring *h*  
45 tends to throw or return the end of the lever fitted with the roller *g* against the toothed or serrated periphery of the wheel *c* when it rebounds therefrom as the wheel is rotated. The wheel is rotated by a suitable crank-handle *l* and the weighted lever *d* vibrated, the  
50 intensity of the vibrations being varied by adjusting either the weight *e* or the spring *h*.

Any other means—such as an electric motor, for example—may be employed to drive  
55 the wheel *c*.

The vibrations set up may be transmitted

to the patient in the usual manner by a rigid attachment to the frame of the machine, such as the terminal, (indicated at *m*.)

In another mode of carrying out the invention as illustrated in Fig. 3 the inner end of the lever *d* is forked or slotted, as at *n*, and an eccentric or cam *o* is adapted to engage therein, the latter being mounted on a shaft *p*, fitted with a fly-wheel *q* and rapidly rotated  
60 either direct by a handle *l* or through gearing.

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

1. An apparatus for producing vibrations comprising a pivoted lever, a weight on one end of the lever, means for rapidly oscillating said lever and means for transmitting the vibrations. 70

2. An apparatus for producing vibrations comprising a pivoted lever, a weight on one end of the lever, means for rapidly oscillating said lever, means for adjusting the weight relatively to said lever and means for transmitting the vibrations. 75

3. An apparatus for producing vibrations comprising a frame, a hand-grip thereon, a lever pivoted on said frame, a weight on said lever, means for rapidly oscillating said lever and means for transmitting the vibrations. 80

4. An apparatus for producing vibrations comprising a frame, a hand-grip thereon, a lever pivoted on said frame, a weight on said lever, means for rapidly oscillating said lever, a handle for operating said oscillating means and means for transmitting the vibrations. 85

5. An apparatus for producing vibrations comprising a frame, a hand-grip thereon, a lever pivoted on said frame, a weight on one end of the lever, hand-operated means for oscillating the lever, and means for transmitting said vibrations. 90

6. An apparatus for producing vibrations comprising a frame, a lever pivoted thereon, a weight on one end of the lever, a serrated wheel adapted to engage the outer end of said lever and means attached to the frame for transmitting the vibrations. 100

7. An apparatus for producing vibrations comprising a frame, a hand-grip thereon, a lever pivoted in said frame, a weight on one end of said lever, a roller on the other end, a serrated wheel engaging said roller, a handle for rotating said wheel and means for transmitting the vibrations. 105

8. An apparatus for producing vibrations comprising a frame, a hand-grip thereon, a 110

lever pivoted in said frame, a weight on one  
end of said lever, a roller on the other end, a  
serrated wheel engaging said roller, a handle  
for rotating said wheel, a spring on said lever  
5 and an adjusting-screw on the frame engag-  
ing therewith for the purpose of adjusting the  
intensity of the vibrations.

In testimony whereof I have signed my  
name to this specification in the presence of  
two subscribing witnesses.

JAY VAN TUYL DANIELS.

Witnesses:

LILY F. MCCREA,

LAURA W. JOHNSON.