W. F. ACTON.

VIBRATOR.

APPLICATION FILED APR. 16, 1908.

923,234.

Patented June 1, 1909.

3 SHEETS—SHEET 1.

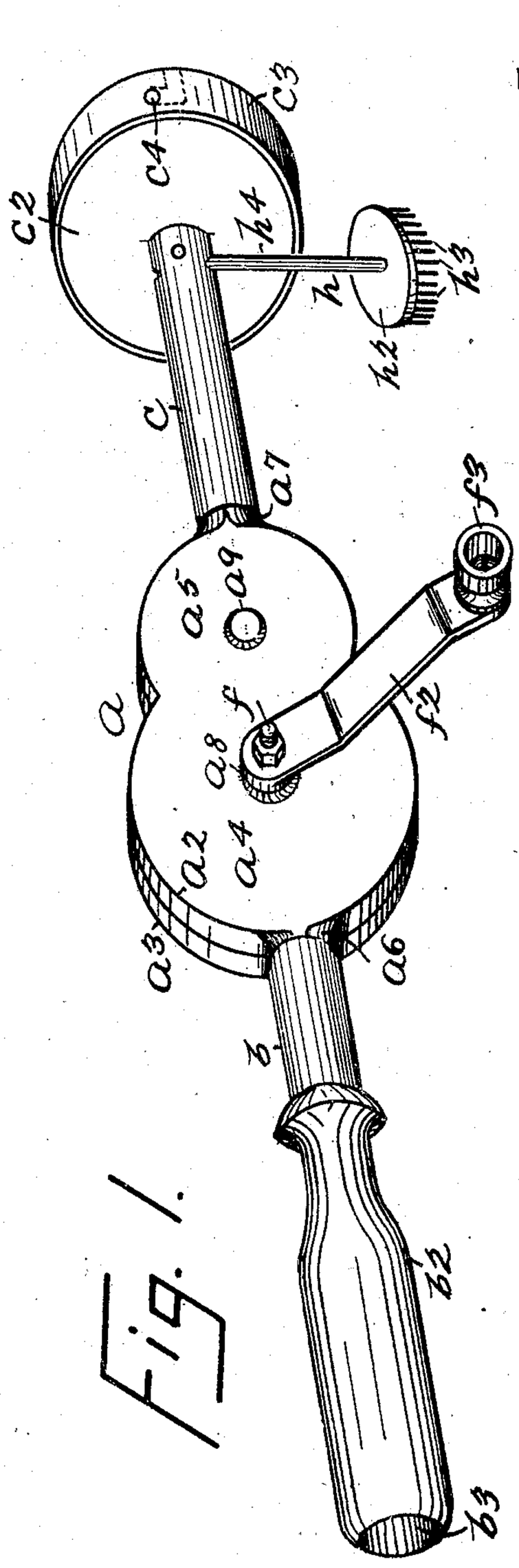

Fig. 1.

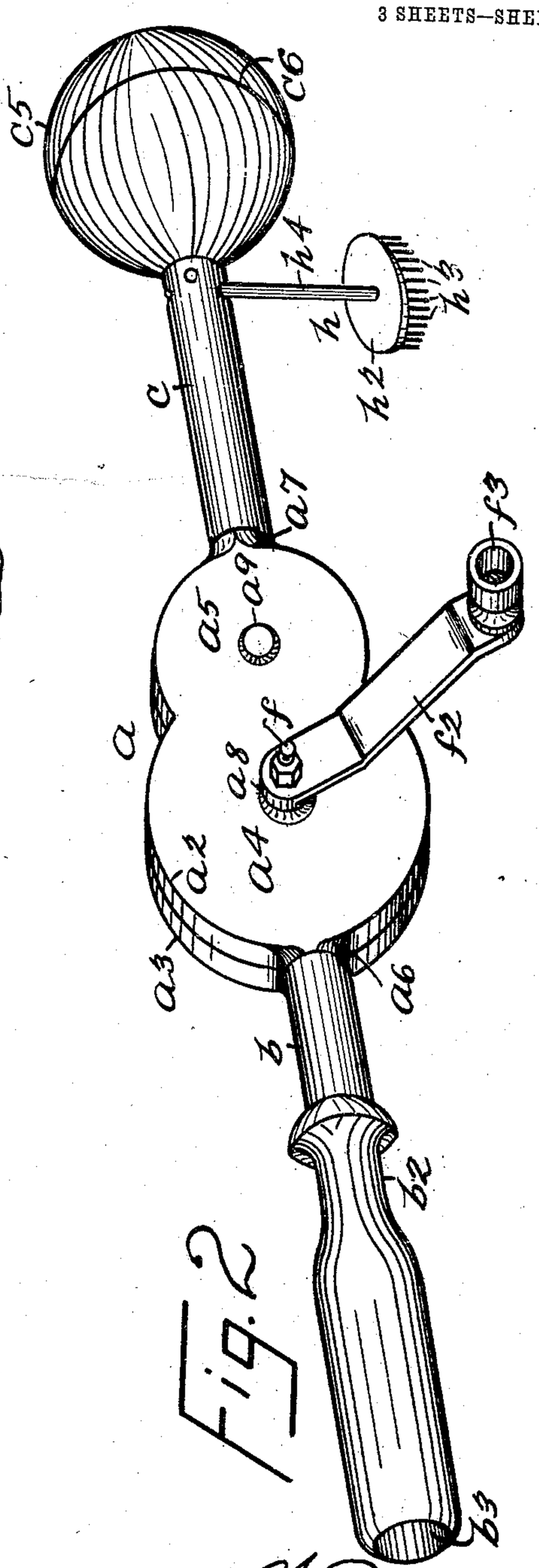

Fig. 2.

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3 SHEETS—SHEET 2.

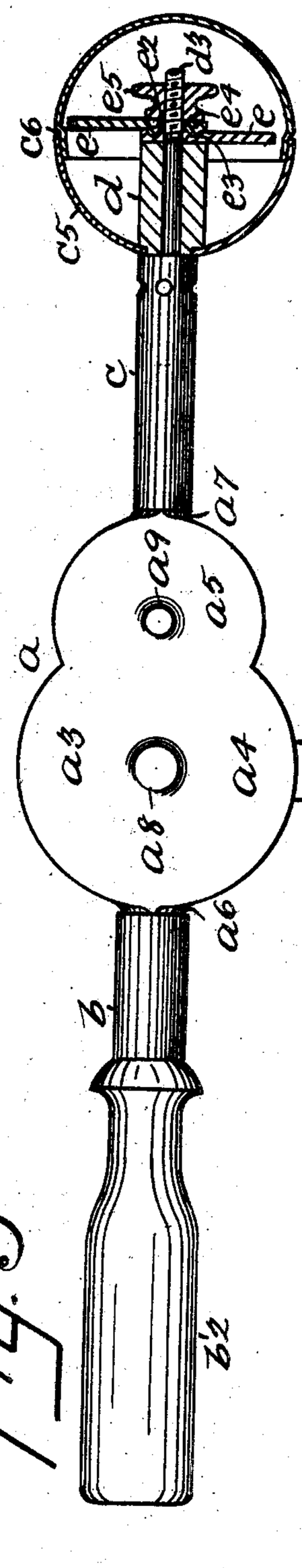

Fig. 3.

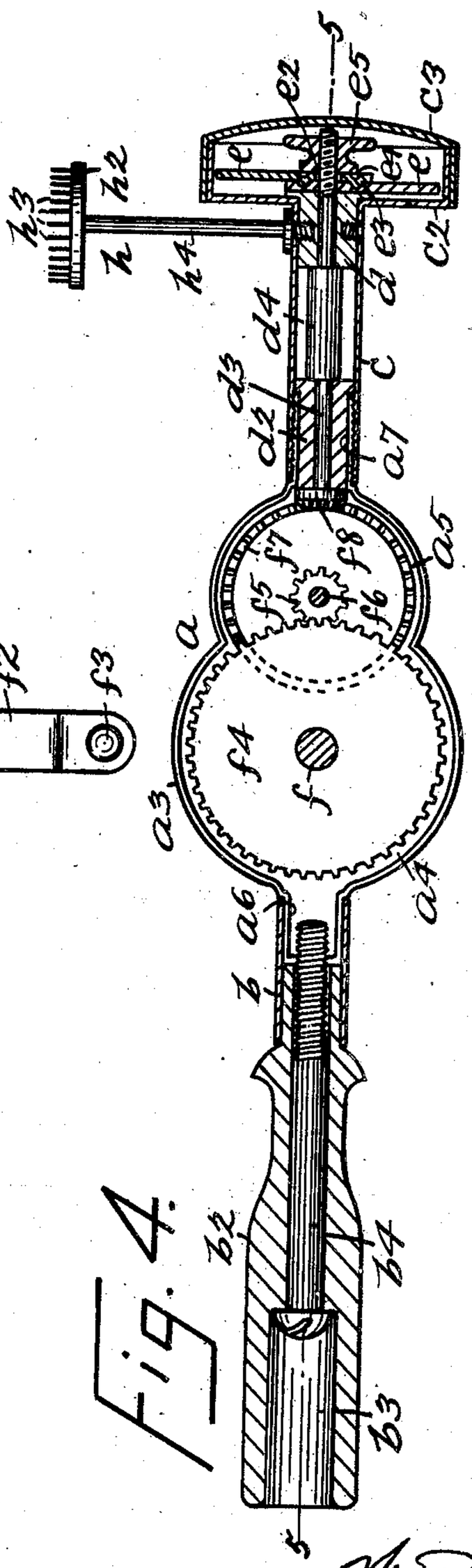

Fig. 4.

Witnesses:
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3 SHEETS—SHEET 3.

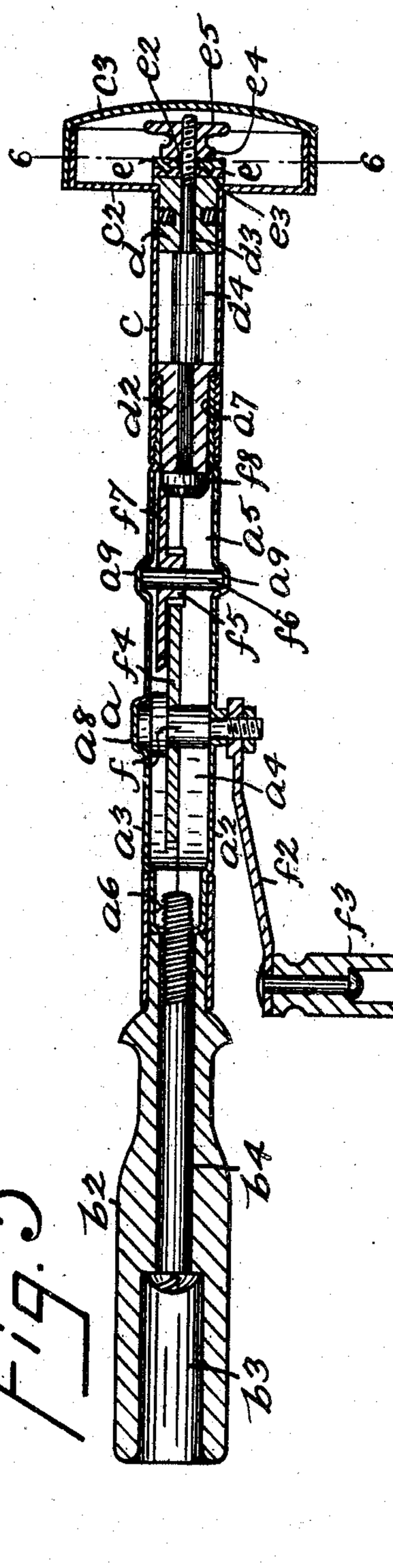

Fig. 5

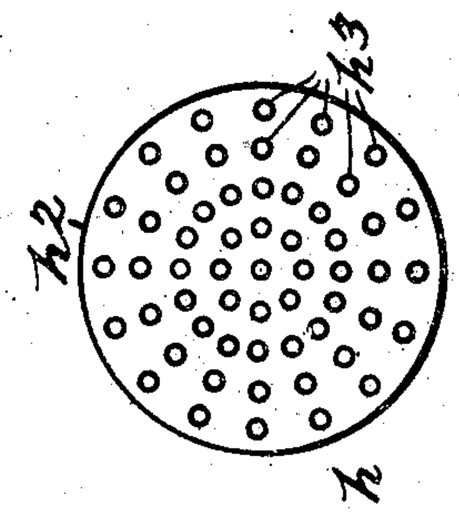

Fig. 7

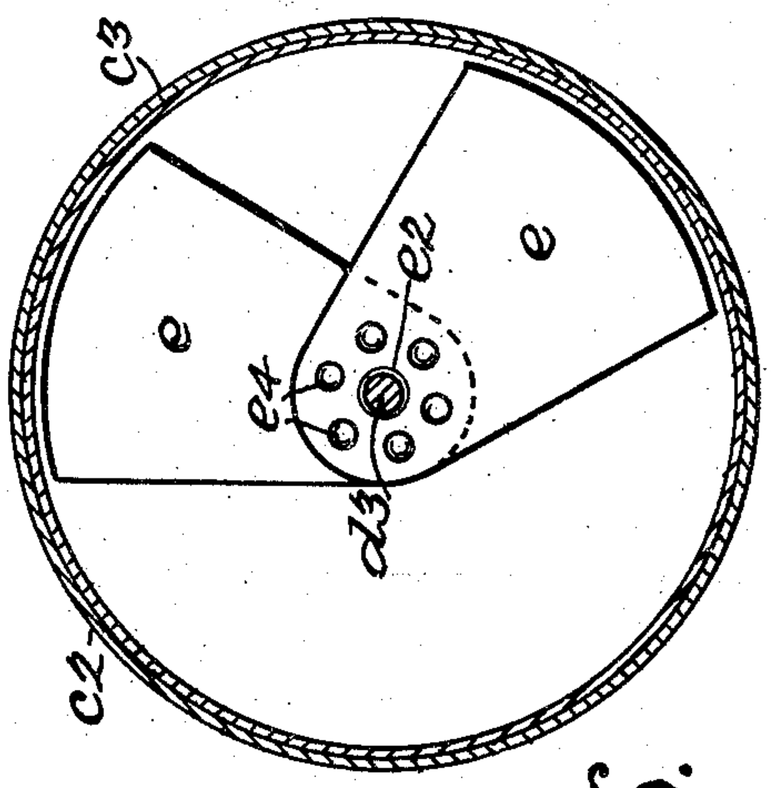

Fig. 6.

Witnesses:
Alan B. Dalgin.
Harry C. Wilson

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UNITED STATES PATENT OFFICE.

WILLIAM F. ACTON, OF NORWALK, CONNECTICUT.

VIBRATOR.

No. 923,234. Specification of Letters Patent. Patented June 1, 1909.

Application filed April 16, 1908. Serial No. 427,428.

To all whom it may concern:

Be it known that I, WILLIAM F. ACTON, a citizen of the United States, residing at Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Vibrators, of which the following is a specification.

The object of this invention is to provide a portable, mechanical massage vibrator, by means of which one may apply the vibratory treatment to any part of his body conveniently.

A further object of this invention is to provide an instrument of the class described in which the intensity of vibration may be conveniently adjusted at the will of the operator.

My invention is fully disclosed in the following specifications of which the accompanying drawings form a part in which similar reference characters are used to indicate similar parts in each of the views and in which—

Figure 1: is a perspective view of one form; Fig. 2: is a similar view of another form; Fig. 3: is a rear view of the form shown in Fig. 2 and partly in section. Fig. 4: is a longitudinal section through the form shown in Fig. 1; Fig. 5: is a similar view at right angles thereto, on the line 5—5 of Fig. 4; Fig. 6 is an enlarged sectional view on the line 6—6 of Fig. 5; and Fig. 7 is a face view of a detail of the device.

In the practice of my invention, I provide a casing a, comprising two members a^2 and a^3 forming circular compartments a^4 and a^5, and necks or elongations a^6 and a^7, the latter externally screw threaded.

A^8 and a are sockets centrally located in the circular compartments a^4 and a^5 and serve as bearings for parts hereinafter described.

b is a collar which serves to hold the handle b^2 in position. b^3 is a recess in the said handle which receives the head of the screw b^4, which is engaged by the threaded neck a^6. By this means the said handle is securely attached to the casing a.

c is a tube attached at one end to the neck a^7 and at the other to the cup shaped head c^2. c^3 is a convex cover for the said cup shaped head and is secured thereto by means of the bayonet locks c^4. c^5 shows a variation in the shape of the said cup shaped head, and is joined at c^6. This shape may be spherical as shown or it may be pear shaped or egg shaped, the object being to provide an applicator head which may be best suited to the particular needs of the operator or the patient.

d and d^2 are plugs and serve as bearings for the shaft d^3 which has an enlargement d^4 to keep it in position.

e—e are eccentrically pivoted weights, one threaded to engage similar threads on the shaft d^3, and the other provided with a clearance hole e^2.

e^3 are a plurality of circularly arranged depressions in the threaded weight e, and e^4 are a plurality of similar circularly arranged elevations on the weight with the clearance hole, and are adapted to engage said circularly arranged depressions. e^5 is a thumb nut adapted to engage the shaft b^3 and to clamp the said weights together. By this means the two weights may be secured to the said shaft in various positions relative to each other and may be arranged opposite to each other so as to balance, or over each other so as to throw their combined weight on one side of the shaft b^3.

f is a shaft secured to the gear f^4, and the crank f^2. f^3 is a handle for said crank.

f^6 is a shaft to which is secured the bevel gear f^7 and the pinion f^5 which is engaged by the gear f^4. The bevel gear f^7 engages the bevel pinion f^8 which is secured to one end of the shaft d^3. Thus by turning the crank f^2, the shaft e^3 may be caused to rotate rapidly and as the weights on the other end of said shaft are secured thereto eccentrically the desired vibration is produced depending for their rapidity on the speed of rotation of the said crank, and for their intensity on the relative position to each other of the said eccentrically pivoted weights on the shaft d^3.

h shows a special applicator comprising a body member h^2 with outwardly extending fingers h^3, made of rubber or other suitable material and a metal attachment rod h^4 screw threaded at the free end so as to engage the tube c and the plug d.

While I am aware that other mechanical vibrators have been made, I believe that the shape of the applicator head I herein show and describe produces a new and useful result in that it enables the patient or the operator to apply the vibratory treatment to different parts of the body with greater ease and efficiency than was heretofore possible, and while I am also aware that in the different forms of mechanical massage vibrators, means have

been in use for varying the intensity of vibration, the device I herein show and describe, proves in practice to be the most simple and efficient for my purpose.

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

1. A mechanical massage vibrator comprising a casing, a handle attached thereto, at one end and a tube at the opposite end, a shaft rotatably mounted within said tube, a gear mechanism contained in said casing adapted to rotate said shaft rapidly, a means for actuating said gear mechanism, two weights, each pivoted at one end on said rotatably mounted shaft, a series of circularly arranged depressions in one weight and a similar series of circularly arranged elevations, on the other weight, a lock nut on said shaft, adapted to hold said weights in position, and a suitable casing for inclosing said weights, which said casing is to be used as an applicator to be applied to the body, substantially as shown and described.

2. A mechanical massage vibrator, comprising a casing, a handle attached thereto, at one and a tube at the opposite end, a shaft rotatably mounted within said tube, a gear mechanism, contained in said casing and adapted to rotate said shaft rapidly, a means for actuating said gear mechanism, a wedge shaped weight, screw threaded at its extreme end on said rotatably mounted shaft, a similar weight pivoted at its extreme end on said rotatably mounted shaft, but adapted to turn freely thereon, a means for locking said freely moving weight in any desired position with reference to the other weight, and a suitable casing for inclosing said weights, which said casing is to be used as an applicator to be applied to the body, substantially as shown and described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 13th day of April, 1908.

WM. F. ACTON.

Witnesses:

ALOIS B. SALIGER,

HARRY C. WILSON.