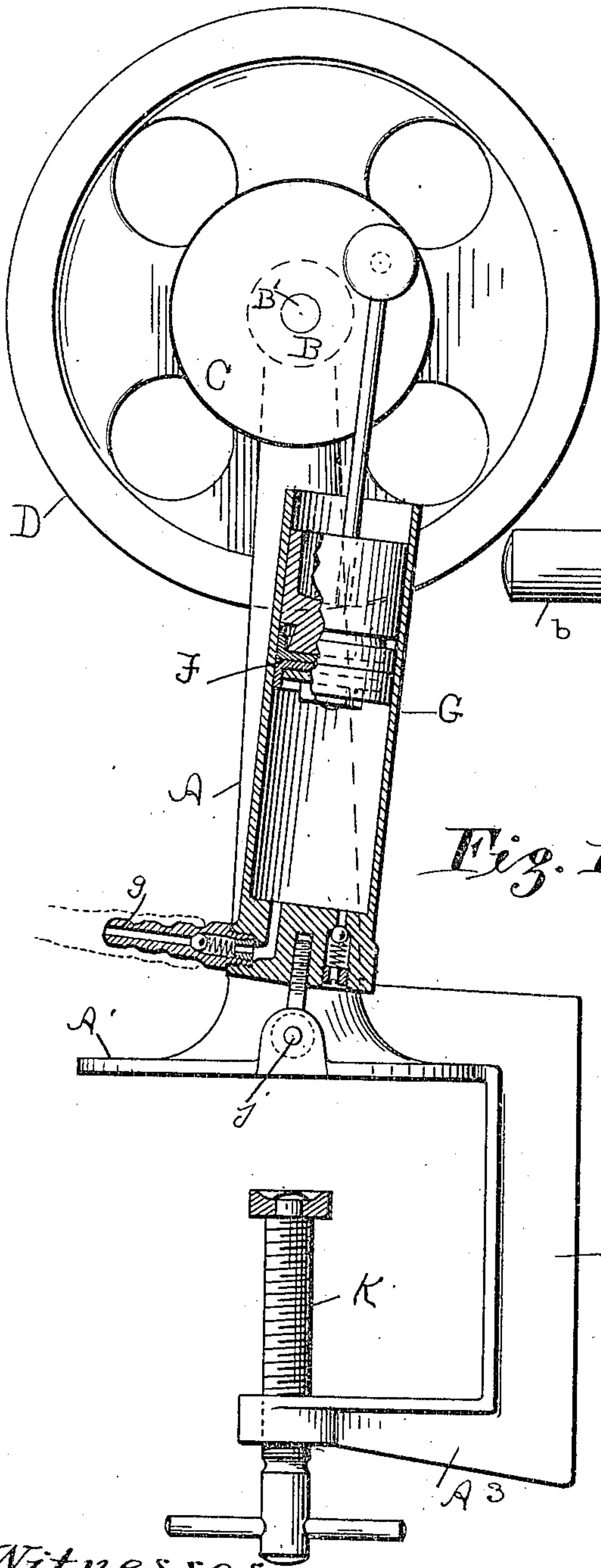


No. 837,207.

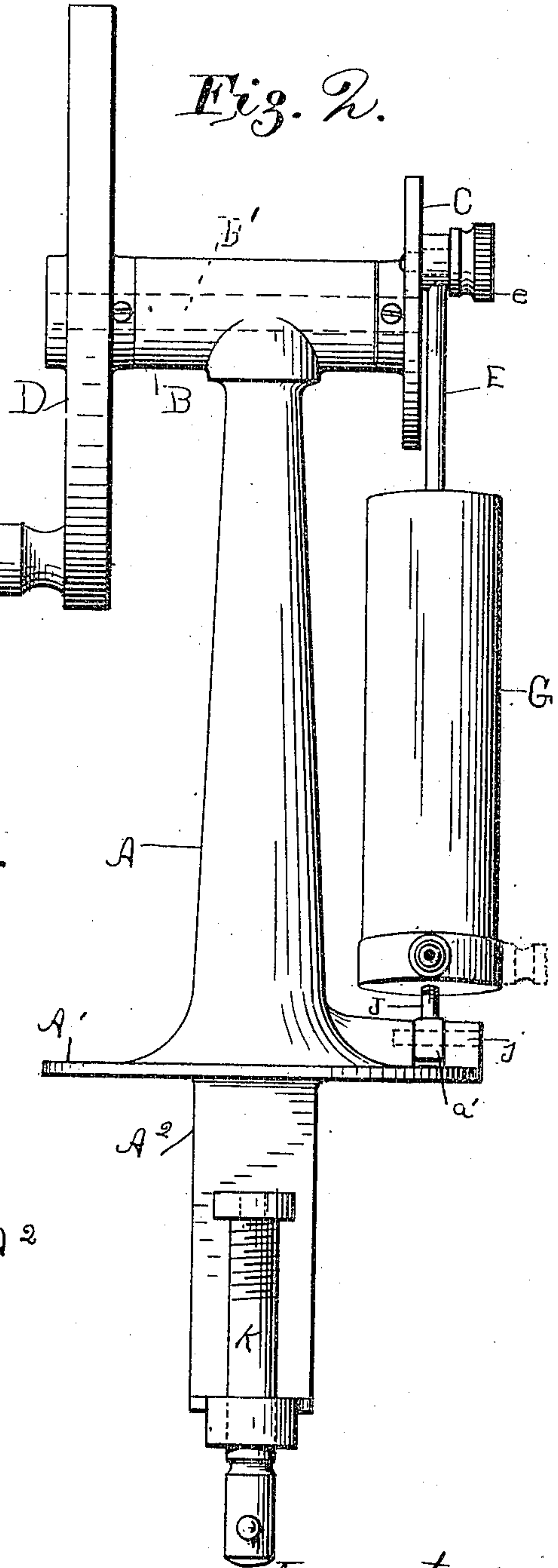
PATENTED NOV. 27, 1906.

H. P. ENGELN.
MASSAGE PUMP.

APPLICATION FILED SEPT. 29, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY P. ENGELN, OF CLEVELAND, OHIO, ASSIGNOR TO THE H. P. ENGELN COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

MESSAGE-PUMP.

No. 837,207.

Specification of Letters Patent.

Patented Nov. 27, 1906.

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To all whom it may concern:

Be it known that I, HENRY P. ENGELN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Massage-Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to a device adapted for massage treatment, and more especially adapted for individual use.

The objects of my invention are its convenience for individual use, comprising its adaptability to be secured and operated by the individual requiring or desiring treatment and to be secured at any convenient place.

Another object of my invention is to provide a simple device which will not become inoperative or require mechanical skill to adjust or operate or assemble the parts after the device has once left the factory.

With the above objects in view my invention consists in providing a compact structure integral as to its supporting-standard and adjustable clamping mechanism and it further consists in the supporting of the air-pump upon a swivel-joint in such a manner that the pump-cylinder can be turned or will turn upon itself, according to the required direction, without manual interference, as required during the massage operation.

My invention further consists in the peculiar construction of the device whereby it is adapted for the performance above set forth, all of which will be hereinafter fully set forth and claimed.

In the drawings, Figure I is a view in side elevation of my device, illustrating the internal construction of the pump, which is shown in vertical section. Fig. II is a view in rear elevation, illustrating the pump with the parts assembled and the relation of the parts to each other.

This device is intended for the use of the individual desiring treatment and is intended and constructed so that it can be operated by the person without any assistance, both as regards the convenience of its position and the operative parts of the device. In this

fact resides the practical value of the device, and to attain this object the device is preferably constructed as follows:

A represents a standard having at its upper end a journal or bearing B, in which is mounted a shaft B', supporting and controlling the movements of a crank-wheel C, and an operating device or rotating device D, which is preferably in the form of a balance-wheel with a handle *b* attached. A pitman E is secured to a wrist-pin *e* on the crank-wheel C. This pitman in turn is connected to a piston F, which reciprocates in a cylinder G, the said piston and cylinder constituting the air-pump.

I preferably form the cylinder and its ports in one piece, although this is not essential, and the valves controlling the ports may be so constructed (see Fig. I) as to cause suction at the connection *g* or to cause pressure, this feature being immaterial as regards the pump. By forming the base of the cylinder G heavy, as illustrated in Fig. I, it allows of placing it directly in connection with a swivel-support J. This swivel-support J allows of the rocking of the cylinder by means of its pivotal connection, as at *j*, which allows the cylinder to oscillate, as required by the throw incident to the revolution of the crank-wheel C and its wrist-pin or arm *e*; but as in some cases it is necessary that the cylinder G, or more especially the connection *g*, should be located according to the line of the tubing attached thereto, thus obviating the kinking of the tube and shutting off of the action resultant from the operation of the pump, I have located the swivel J central in the bottom of the cylinder G, preferably providing screw-threads upon the upper end of swivel J and in the aperture in the bottom of the cylinder into which the swivel is entered, allowing the cylinder G to turn upon the swivel connection and oscillate in a horizontal direction, accommodating the connection to the direction of the hose. (Illustrated in dotted lines in Fig. I.) The swivel connection J is illustrated as a loosely-fitting threaded screw, which threaded screw is centrally located and engages within the base of the pump in such a manner as to allow of the horizontal oscillating motion on said swivel.

The swivel J is provided at its lower end with a collar a' , which is pivoted upon a pin j in the base A' at right angles to the swivel J to allow of movement of the cylinder in a plane at an angle to its plane of rotation.

From the base A' of the standard A, I extend an arm A^2 downward and another arm A^3 horizontally or at right angles thereto, and in the arm A^3 at its free end I provide an internal screw-thread engaged by a clamping-screw K. The parts A' , A^2 , A^3 , and K form a clamp integral with the standard and its base, whereby the device may be positioned at convenience—for instance, at the edge of the table, a dresser, or shelf or other convenient and like article. It will be seen that the clamping-screw K is centrally located in vertical axial line with the pump and its bearing at the base, thus allowing the clamp to adhere firmly to a narrow ledge and allowing it to be shifted to different positions on the ledge, also rendering it easy of manipulation or adjustment without mechanical knowledge as far as relates to the clamping of the machine in position. This enables the device, first, to be portable; second, to be operated by the person desiring the massage treatment, and, thirdly, the whole structure is compact, convenient, simple, positively operative, and requires no adjustment beyond the scope of knowledge of any ordinary educated individual.

In setting forth this invention I have illustrated and described certain details of construction and operation of parts which may

be modified without departing from my invention.

What I claim is—

1. A device of the type set forth comprising a standard, surmounted by a crank-wheel, an air-pump operated by means of said crank-wheel, said air-pump being mounted upon the base of the standard by swivel connection, which allows it to oscillate in both a vertical and horizontal direction.

2. A device of the type set forth, comprising a standard surmounted by a crank-wheel, an air-pump operated by said crank-wheel, a swivel connecting the pump and the base of the standard, said swivel being connected to the base by a pivotal connection, whereby the pivot may be oscillated with respect to the base.

3. A device of the type set forth, comprising a standard surmounted by a crank-wheel, an air-pump operated by said crank-wheel, a swivel-pin entered into the bottom of the pump upon which the pump may rotate, the other end of said swivel being provided with a collar pivoted upon a pin at right angles to the swivel, whereby the pump may have an oscillatory motion at right angles to its afore-said rotary motion.

Signed at Cleveland, in the county of Cuyahoga and State of Ohio, this 17th day of September, 1904.

HENRY P. ENGELN.

Witnesses:

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