G. H. Taylor,

Movement Cure.

No. 77,933. Patented May 12, 1868.

Fig. 1.

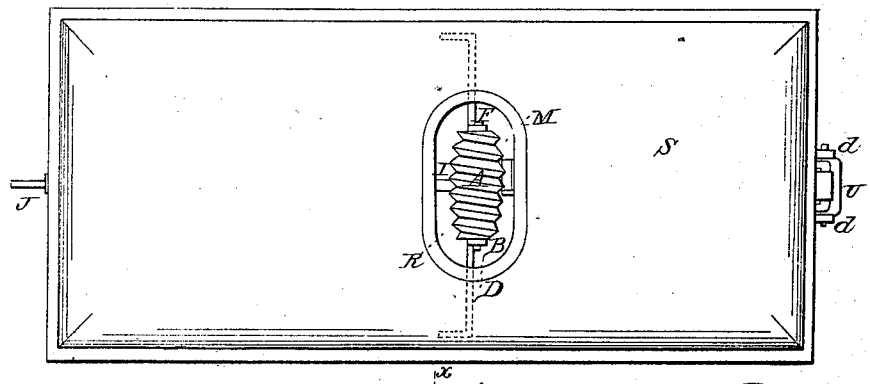


Fig. 2.

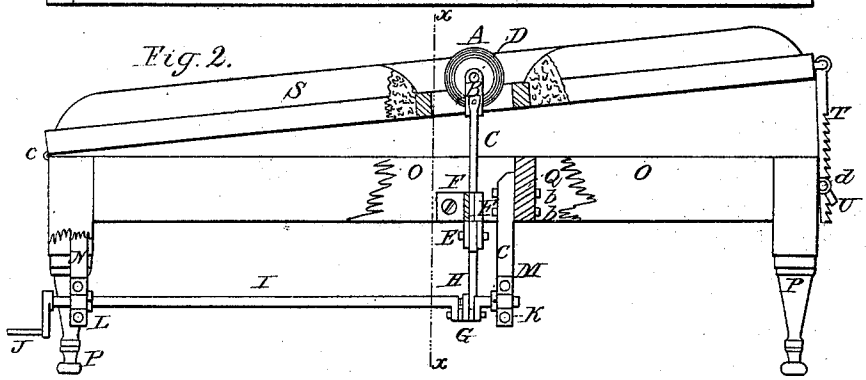
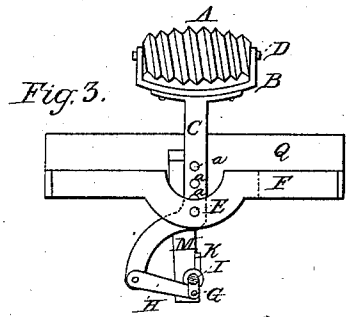


Fig. 3.



Witnesses.
D. W. Weston
Jas. F. Hanland

Inventor
George H. Taylor
By H. James Weston
Atty

United States Patent Office.

GEORGE H. TAYLOR, OF NEW YORK, N. Y.

Letters Patent No. 77,933, *dated May* 12, 1868.

OSCILLATING RUBBING-MACHINE FOR MEDICAL USES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE H. TAYLOR, of the city, county, and State of New York, have invented a certain new and useful Oscillatory Rubbing-Machine for Medical Uses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to produce effects on different parts of the human body similar to those produced by a rubbing with the hands, and to produce these effects in an increased degree, but without the fatigue to the operator occasioned by that operation.

For this purpose my invention consists—

First, in a new and improved rubber, hereinafter fully described, which, when operated by any suitable mechanism, rubs the surface to which it is applied in such a manner as to produce effects similar to those produced by the human hand.

Second, in the combination, with the said rubber, of a forked arm or rod, in the forked end of which the said rubber is hung, the said rod being suspended on a pivot, and oscillated or vibrated in the same plane with the axis of the said rubber, and in the general direction of its length.

Third, in the combination, with the said rubber and the said rod, of a crank and connecting-bar or arm, by which a reciprocating motion is imparted to the said rod through a revolving shaft, on which said crank is secured.

Fourth, in the combination, with the said rubber, and the mechanical devices for imparting motion thereto, of a suitable couch, bed, or table, on which the person to be operated upon may sit or recline, the said couch, bed, or table having a suitable opening in it, through which the said rubber may be made to protrude, in order that it may be brought in contact with and caused to operate on that portion of the body of the patient which rests on or across said opening.

In the accompanying drawings—

Figure 1 is a plan of my improved machine.

Figure 2 is a side elevation of the same, a portion of the couch being represented as broken away, in order to show the working-parts of the machine more distinctly.

Figure 3 is a vertical cross-section on the line *x x*, fig. 2, showing the working-parts to the right of that line.

A is the rubber. It consists of a core of wood, or other similar material, of the form of the middle frustum of a prolate spheroid, somewhat resembling a very long cask or barrel. On this core a triangular band of India-rubber is wound spirally from end to end, covering its entire surface, except the ends, and securely fastened to the said core.

A strip or band of India rubber, of a square section, may be used, by previously cutting out of the wooden core a triangular spiral groove, to receive one-half of it. India-rubber bands of other shapes may also be used in a similar manner, or the India-rubber surface, containing the requisite corrugations or projecting points, cones, or ridges, to make it adhere to the surface to be operated upon, may be prepared in a sheet of proper size, and fastened on the core, or a hollow cylinder of India rubber, having the requisite outer surface, may be stretched over or secured to the core, or upon the rod or pivot on which the rubber turns. In this last case no core would be needed, but circular end plates, of metal or other stout material, ought to be put on at the ends of the rubber to keep it in place.

This rubber, formed as described, is hung in the fork B of the rod C, by means of the shaft or pivot D, so as to turn freely. The rod C is hung on a pivot, E, in the cross-piece F, at any convenient height, being capable of being raised or lowered by means of a series of holes, *a a*, in any one of which the pivot E may be placed. By shortening the upper end of the rod C, the lateral motion of the rubber is shortened, and the convexity of its motion is increased.

The middle part of the cross-piece F is made double, as seen in fig. 2, and the rod C passes down between the two parts, the pivot E passing through both, so as to have a firm and even bearing.

The lower end of the rod C is connected to the double crank G by means of the arm or connecting-rod H, and thus has a reciprocating or vibrating motion imparted to it by the shaft I, on which the crank G is hung.

The shaft I is turned by the crank J. It may, however, be turned by a treadle, a drum and belt, or by cog-gearing, if preferred. The shaft is hung in bearings, K and L, in the hangers M and N, and these hangers are secured to the frame of the machine by bolts *b b*.

The lower part of the machine consists of a strong rectangular frame of wood, O, with legs P, similar to a common lounge-frame, but having a cross-piece, Q, set into it, to stiffen it and give a point of support to the hanger M. To this frame, at one end, is secured, by hinges *e*, a bed or couch, S, stuffed and upholstered, to render it easy and comfortable for the patient, and having a hole or opening, R, through it, near its centre, to permit the rubber A to work against that portion of the body of the patient which is placed over the opening. At the end of the couch S, opposite to that secured by the hinges *e*, is hinged a rack, T. A loop or catch, U, which is hung or hinged to the frame O by the staples *d*, takes into the teeth of the rack T, and holds the said couch S at any desired elevation or inclination.

In using the machine, the patient sits or reclines on the couch, and brings that portion of the body, the leg for example, directly over and partially resting upon the rubber A. The attendant now turns the crank J, or connects the power, by which the shaft I is revolved, and sets the rubber A in motion.

It will be observed that the motion of the rubber A is parallel to the longitudinal outline of its upper surface, and that in consequence the effect is entirely a rubbing one.

Having thus fully described my invention, I claim—

1. The rubber A, composed of India rubber, and having its outer surface coated or covered with India rubber, the said outer surface being furnished with projecting ribs, points, or corrugations, and the said rubber A being constructed substantially as and for the purpose specified.

2. The combination, with the rubber A, of the forked rod C hung on a pivot, E, and operated by any suitable mechanism, substantially as and for the purpose set forth.

3. The combination, with the rubber A and rod C, of the crank G, arm or connecting-rod H, and shaft I, substantially as described and for the purpose set forth.

4. The combination, with the rubber A, driven by suitable mechanism, substantially as set forth, of the couch S, properly connected to the frame O, and having an opening, R, through it, for the said rubber A to work through, substantially as and for the purpose set forth.

GEO. H. TAYLOR.

Witnesses:

THOMAS PRUDEN,

H. JAMES WESTON.