Sheet 1. 2 Sheets.

G. H. Taylor,

Exercising Apparatus.

No. 75,217. Patented Mar. 3. 1868.

Fig 3.

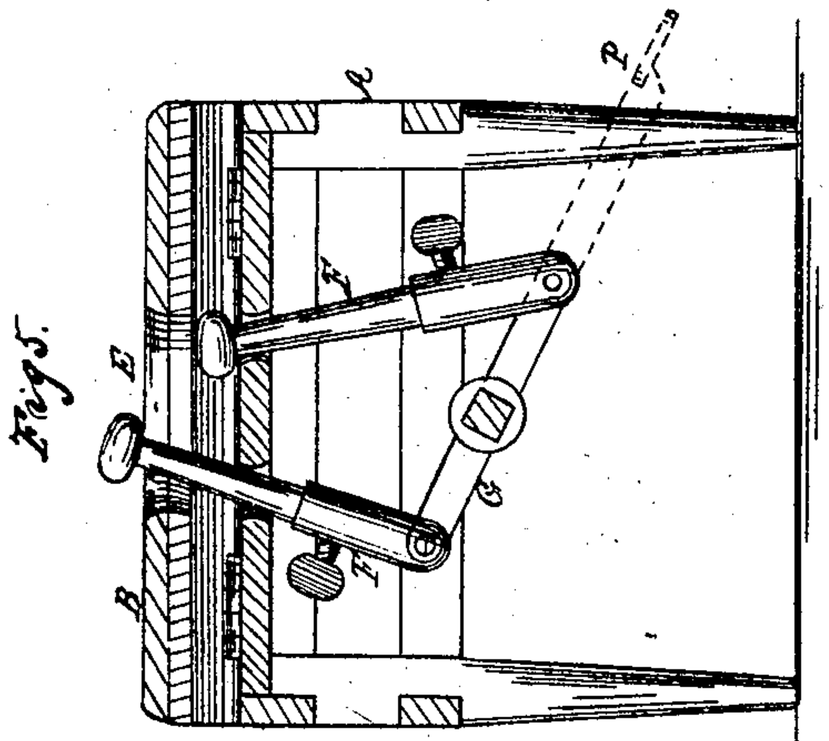
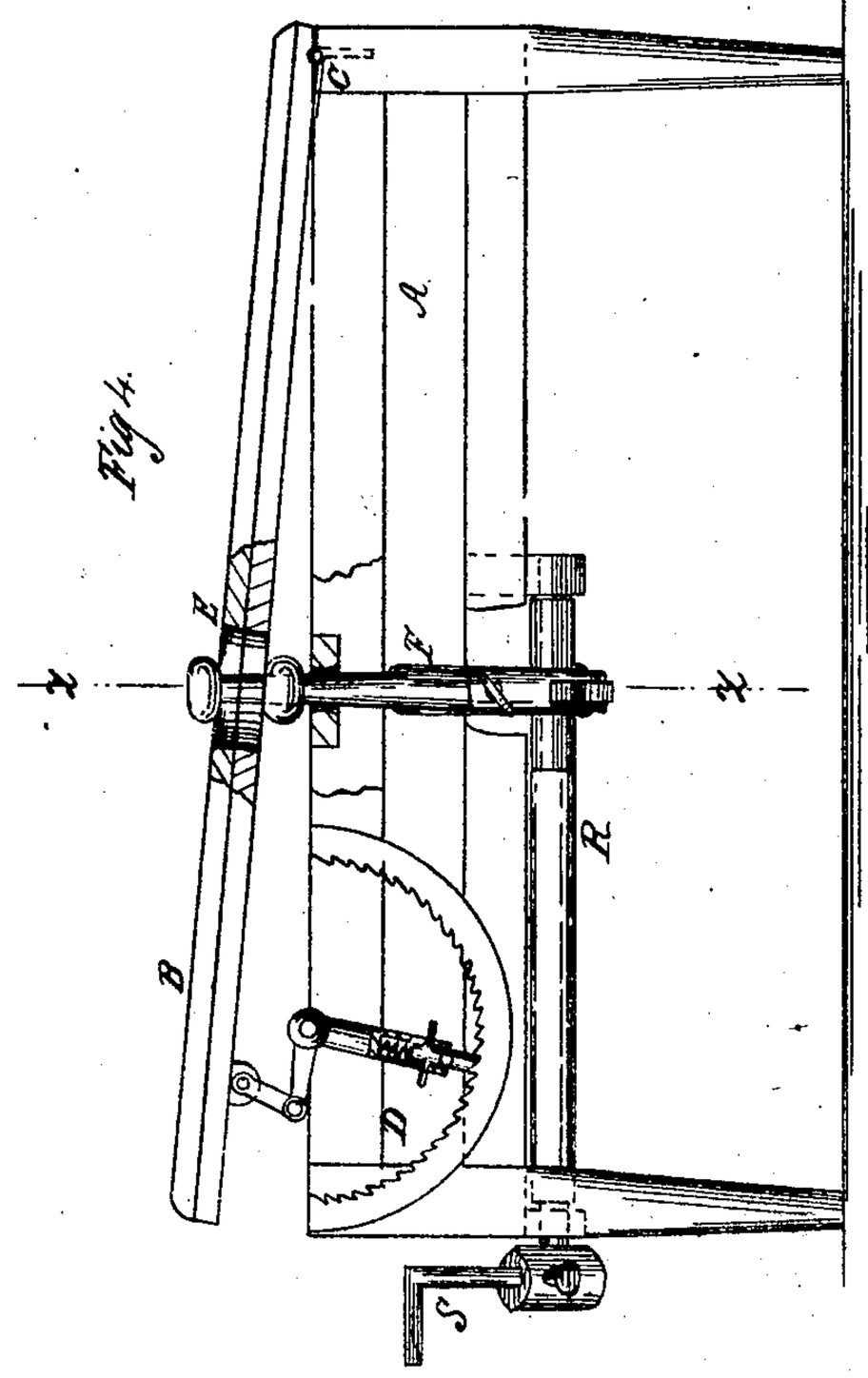


Fig 4.



Witnesses.
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Sheet 2 - 2 Sheets.

G. H. Taylor's

Exercising Apparatus

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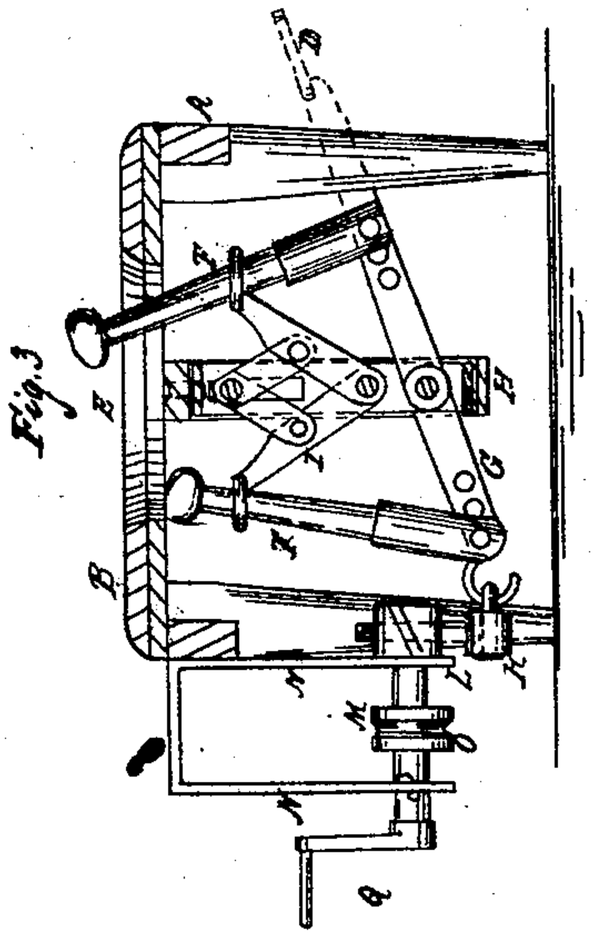
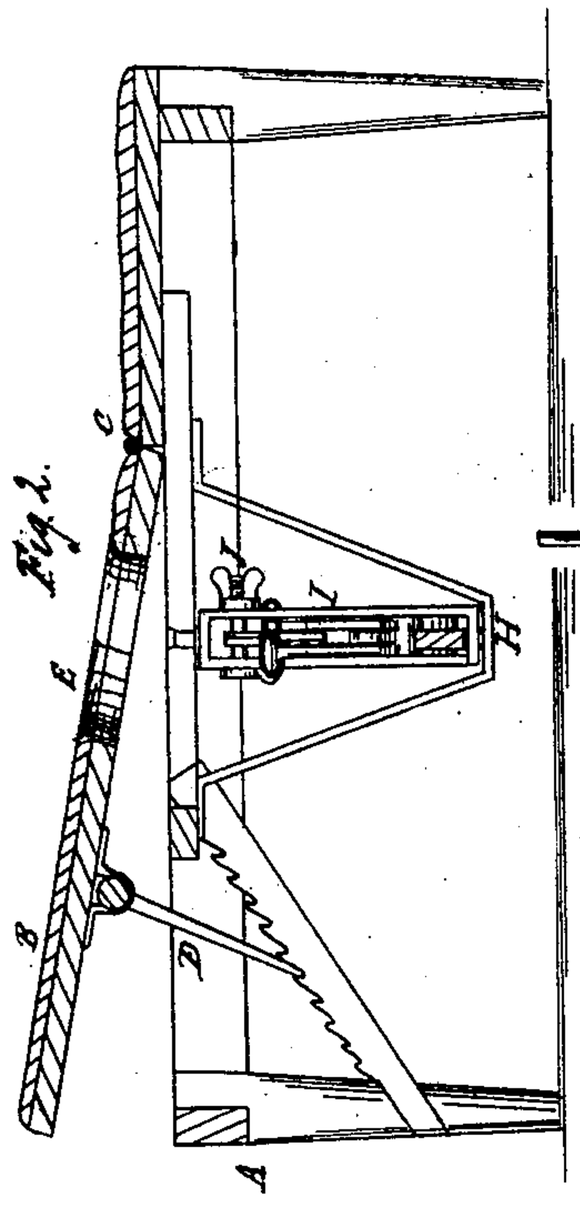
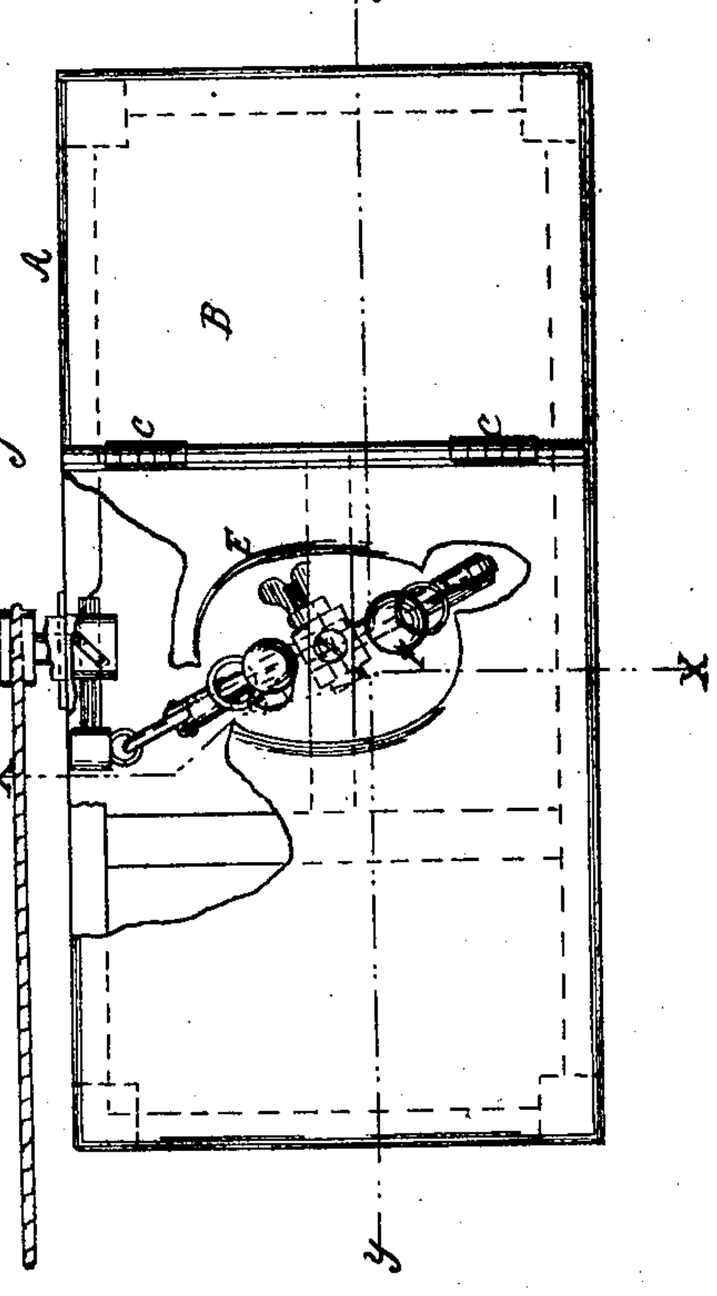
Fig. 3







Witness

E. J. Rogers

Inventor

Geo. H. Taylor

United States Patent Office.

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

Letters Patent No. 75,217, *dated March* 3, 1868.

APPARATUS FOR EXERCISE.

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 New York city, State of New York, have invented a new and useful Medical Kneading and Vibrating-Machine, the purpose of which is to apply kneading and vibrating motions to the body or any of its parts, under the direction of a competent physician, to aid in securing the following therapeutic effects: reinforcing the circulation of the blood in weak parts and obstructed capillaries, removing congestion, promoting intestinal and digestive absorption, increasing the attraction of the products of waste for oxygen, and their consequent removal from the body, solidifying the tissues, equalizing and invigorating the nutritive operations of the body.

To enable others to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, sheet 1, shows a top view of my invention,

Figure 2, a longitudinal vertical section through *y y* of fig. 1, and

Figure 3, a transverse vertical section through *x x*.

Figure 4 is a side view of a modification of the same, and

Figure 5 is a vertical section through *z z* of fig. 4.

Similar letters of reference indicate like parts.

I construct a couch, A, in any convenient form, having a top or upholstered portion, B, so arranged with hinges, C, at one end, and a catch or spring-ratchet, D, and jointed levers near the other end, as to be capable of elevation and depression, so as thereby to adjust the position of the body lying thereon to the desired action and effect of the machine. The top of the couch has an opening, E, of size and shape suitable to admit one or more headed rods, F, which in size, shape, and position, are adapted to impinge against that portion of the body resting on the couch immediately over the before-described opening. The lower ends of the headed rods F are attached to the lever G at equal distances from its fulcrum, which distances may be varied to produce more or less motion, as may be desired. In figs. 1, 2, and 3, the fulcrum of the lever G is on the vertical bar H, which turns freely on pivots or centres at each end, and the said lever is driven by a crank, K, on the shaft M, which gives to its ends a circular motion. The upper ends of the headed rods F pass through rings, which guide them, and, in conjunction with the lever G, give to the upper ends of said rods a compound motion, the same being both lateral, vertical, and circular at the same time. The distance of the rings from the axis of the swinging or pivoted bar is fixed and kept equal by the parallelogram of levers I, to the outer corners of which, respectively, the said rings are attached. The lower corner of the said parallelogram of levers is attached to the bar H by a pivot or pin, on which the two levers composing said lower corner freely swing, while the upper corner is held in position and adjusted to any desired height by the bolt and nut J. The shaft M may be driven by any suitable means, as by the crank Q, by a belt acting on the pulley O, or by a suitable treadle.

In the modification of my machine, shown in figs. 4 and 5, the lever G is hung on a rock-shaft, R, which is driven by the crank or arm S, and the upper ends of the rods F pass through holes in the frame of the couch. The motion thereby imparted to the upper ends of the rods F is thus confined to one vertical plane, being a circular reciprocating motion.

This latter form of my machine is simpler, cheaper, and more easily adjusted and managed, but for many cases the form shown in figs. 1, 2, and 3 is the better.

The lever G may be driven, if desired, by the hand or foot applied to an extension of one of its arms, as at D or P, shown in red.

For the purpose of producing a kneading motion, in cases in which such a motion is desirable, the machines are driven at such a speed as will produce from fifty or less to two or three hundred upward motions per minute; while for producing a vibrating motion, consisting of or caused by a rapid succession of slight shocks or blows; the form of the machine shown in figs. 4 and 5 is used, and it is in such cases driven at a speed of from about two to twelve hundred or more upward motions per minute. The effects of these two degrees of motion are very different, becoming of course more similar as they approach the common point or speed of about two hundred per minute.

A slow motion, or, as I have termed it, "kneading," is in its effects laxative, soothing, and calculated to

increase muscular action and development, while the rapid or vibrating motion stimulates absorption of the fluids, equalizes their distribution throughout the body, and promotes the excretion of all those products which in health are thrown off from the system.

When it is desired to give to the machine the rapid motion above stated, it will be found most convenient to drive it by steam or other power, or, if driven by hand, additional gearing will facilitate obtaining the desired speed.

It is obvious that alterations and changes may be made in the details of construction in the above-described machine, without changing in any manner the essential character of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. The headed rods F, driven by any suitable mechanism for producing a reciprocating or circular motion of the headed ends of said rods, substantially as and for the purpose set forth.

2. The combination, with the headed rods F, of the lever G, said lever G being driven substantially as described to produce the motion set forth.

3. The combination, with the headed rods F and lever G, of the crank K, substantially as and for the purpose set forth.

4. The combination, with the headed rods F and lever G, of the jointed parallelogram I, constructed and operating substantially as set forth.

5. The combination, with the headed rods F, of the top, B, of the couch, said top, B, being made adjustable to different angles of inclination by means of the hinges C and a pawl or prop working in a rack or ratchet, or their equivalents, substantially as set forth.

GEO. H. TAYLOR.

Witnesses:

JOHN L. GRIFFIN,

MILTON BRADLY.