

D. P. BUTLER.  
Exercising Machine.  
No. 223,798. Patented Jan. 27, 1880.

Fig:1.

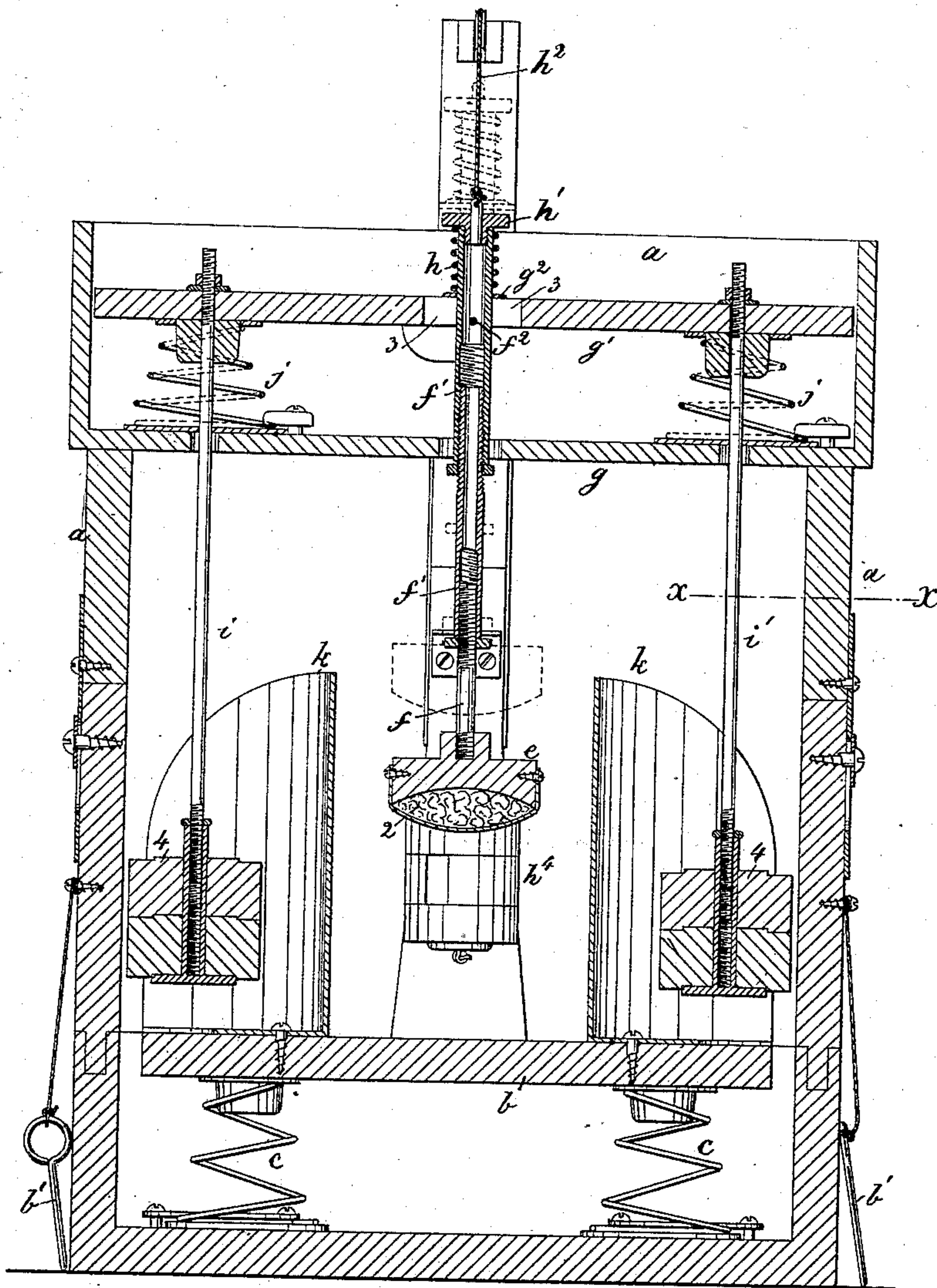
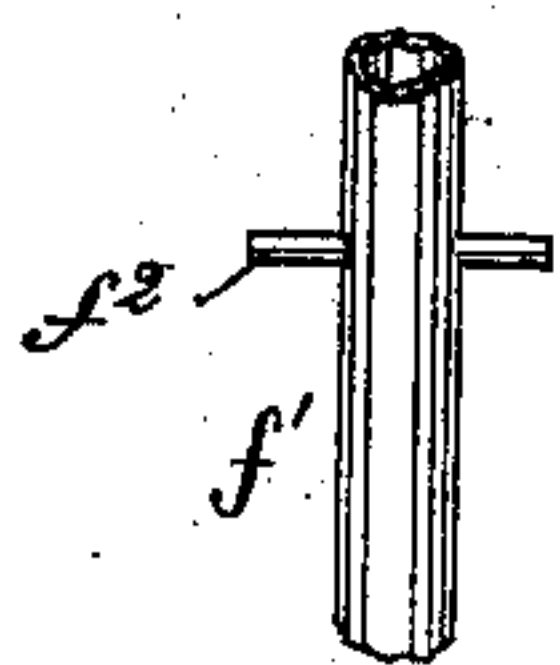


Fig:4.



Witnesses.  
Jos P. Livermore  
L. P. Connor.

Inventor,  
David P. Butler  
by Crosby & Gory

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Fig:2.

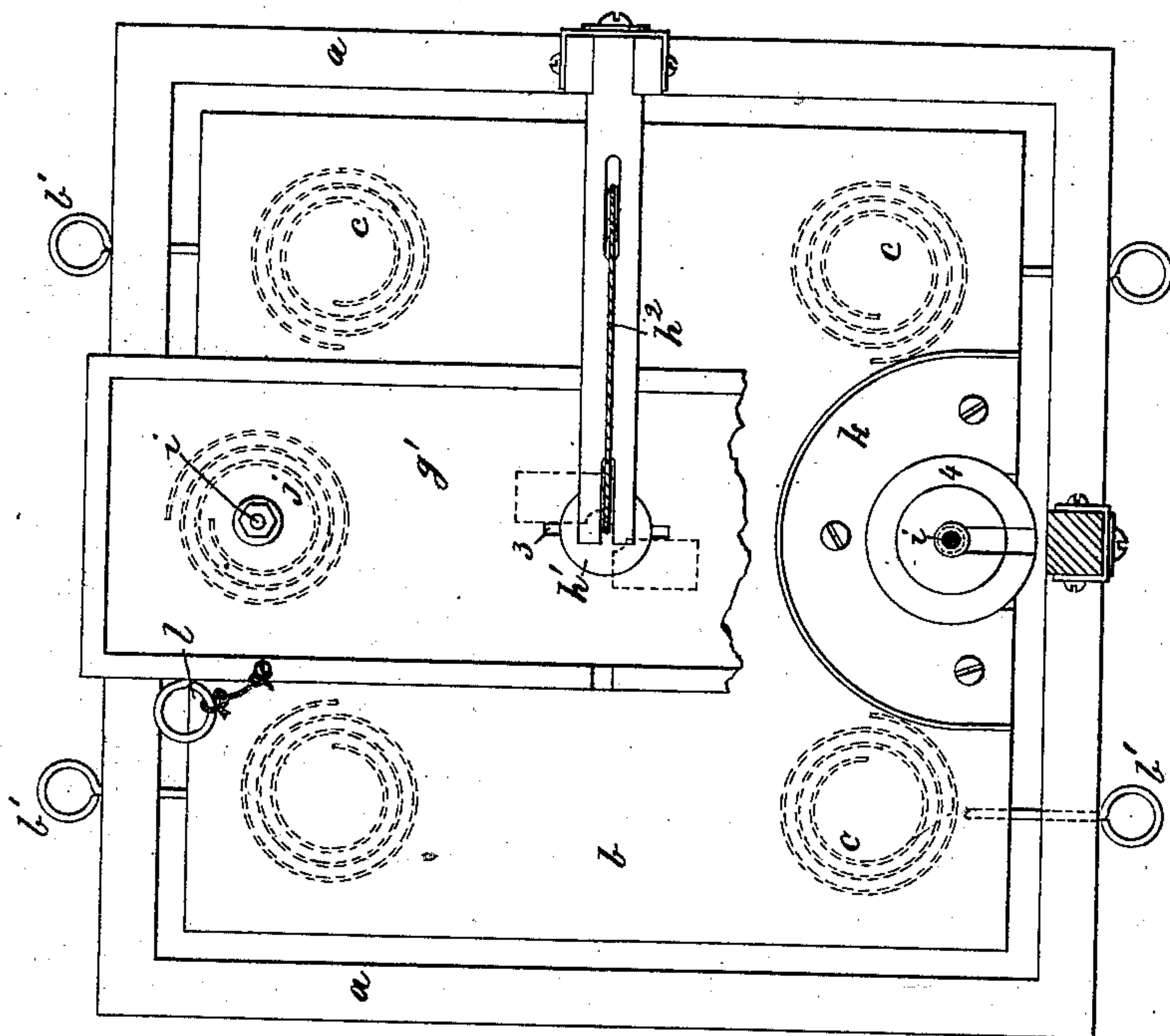
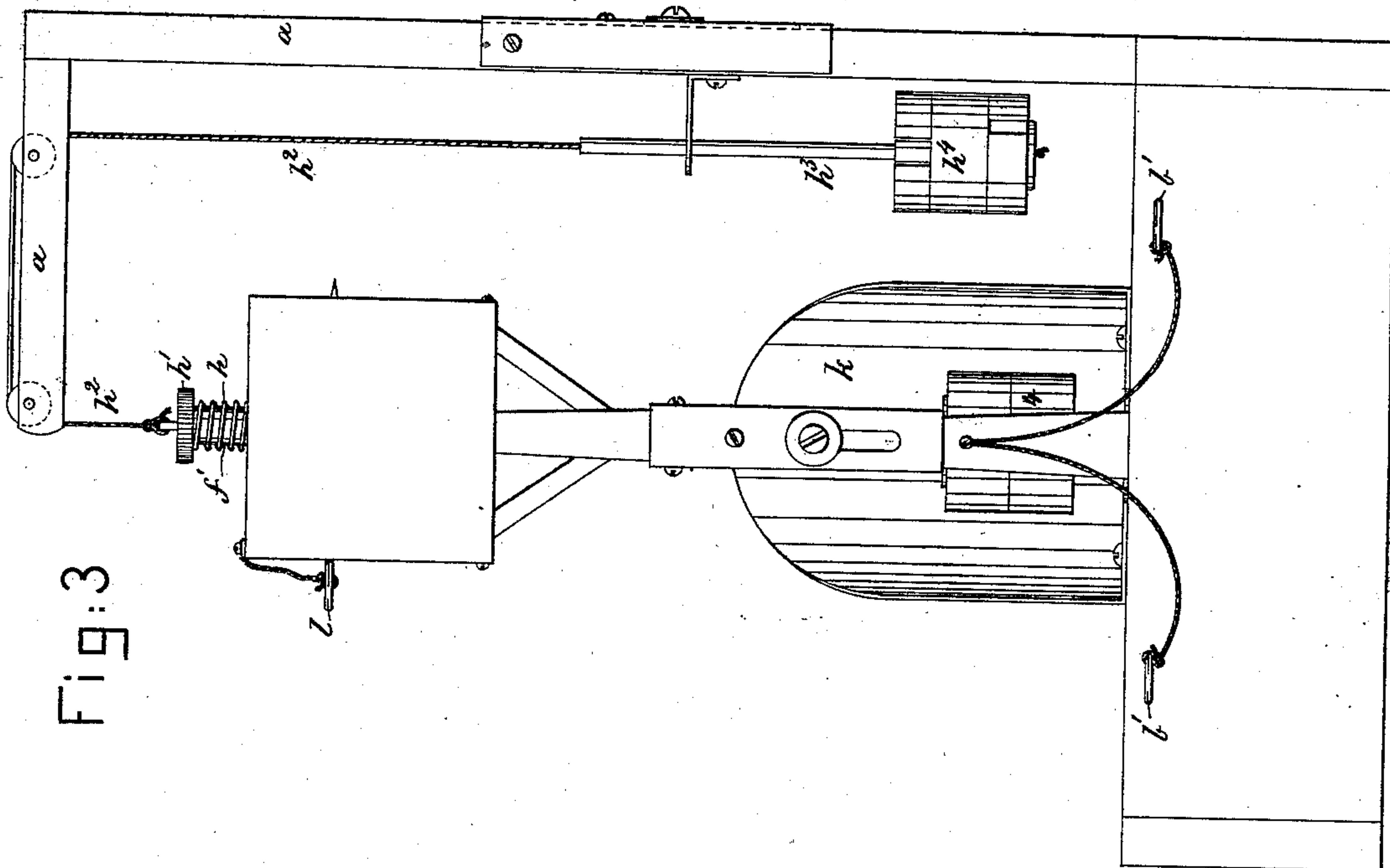


Fig:3



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# UNITED STATES PATENT OFFICE.

DAVID P. BUTLER, OF BOSTON, MASSACHUSETTS.

## EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 223,798, dated January 27, 1880.

Application filed September 5, 1879.

*To all whom it may concern:*

Be it known that I, DAVID P. BUTLER, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Health-Lift or Exercising Apparatus, of which the following description, in connection with the accompanying drawings is a specification.

This invention relates to a health-lift or exercising apparatus for hygienic purposes; and it consists in an apparatus whereby the head is made the medium for lifting a weight or overcoming the resistance of a spring or lever, or equivalent.

In this embodiment of my health-lift or exercising apparatus, denominated by me the "head-lift," I have made a head-piece to bear upon the head of the person who is to lift, and, in connection with the rod of the said head-piece, I have added certain weights, or weights and springs, and in this apparatus I have arranged the platform so as to rest upon springs or to be rigid.

In all other forms of exercising apparatus known to me the weight, spring, or other device to be moved has been moved by the hands or shoulders.

Figure 1 represents, in vertical section, one form of my improved health-lift or exercising apparatus; Fig. 2, a partial top view and section on the lines *xx*, Fig. 1; Fig. 3, an end view of Fig. 1, and Fig. 4 a detail to be referred to.

The frame-work *a* may be of any proper form to sustain the working parts, and of any suitable material.

The platform *b* is shown supported by a series of springs, *c*, any desired number being employed, the springs being more or less strong, as required. This platform, upon which the person stands when lifting, is herein shown as adapted to descend under strain into the base of the frame-work.

The head-piece *e* is herein shown as an annular block suitably padded at its lower side, as at 2, so as not to injure or rest unpleasantly upon the head of the person. This head-piece is attached to the lower part of the rod *ff'*, and is made vertically adjustable with reference to the part *f'* of the said rod, to place the head-piece at the proper distance above the platform, the connection between

*f* and *f'* being by screw-threads. The upper portion, *f'*, of this rod is extended through the plates *g g'* and a washer, *g<sup>2</sup>*, which rests on plate *g'*, after which *f'* receives a spring, *h*, it being held thereon by a nut, *h'*, secured to the end of *f'*, and the said nut is attached, by the cord *h<sup>2</sup>* or other flexible connection, with the weight-holding rod *h<sup>3</sup>*, upon which are weights *h<sup>4</sup>*, sufficient in amount to fully or a little more than counterbalance the weight of the head-piece and rod and their connected parts. The part *f'* of the rod has a locking device, herein shown as a pin, *f<sup>2</sup>*, the ends of which extend outward, as shown in Fig. 4, the said ends being adapted to pass through a slot, 3.

When the apparatus is to be used the rod *ff'* is drawn down and partially rotated, so that the pin *f<sup>2</sup>* stands across the slot 3, below the plate *g'*, as in Fig. 1, wherein the spring *h* is shown as partially compressed. Then the head-piece is adjusted to rest upon the head of the person who is to lift. The said person stands with his legs somewhat bent, so that as his legs are straightened he will, by his head in contact with the head-piece, lift the rod *ff'*, so that the pin *f<sup>2</sup>* therein, resting against the lower side of plate *g'*, will lift the said plate, and with it the rods *i i'* and their attached head-weights 4 4, which may be more or less in amount, according to the strength or need of the individual. During this straightening of the legs the platform will slightly settle.

After the person has lifted the head-weights it is desirable to have him again bend his knees to his starting position to lower the weights and relieve his head from pressure, and then it is desirable to have the head-piece automatically lifted from his head, that he may straighten his body without resistance. To accomplish this latter the rod *ff'* may be turned partially until the pin *f<sup>2</sup>* and slot 3 coincide, when the spring *h* will suddenly start upward the rod and head-piece, and the counter-balance *h<sup>4</sup>* will complete the movement.

The springs *jj* are compressed more or less by the head-weights, and thereby enable the weights, when in their lowest positions, to be more or less counterbalanced, in order that the person lifting may gradually pick them up, and not lift the full weight until nearly



straight, and thus prevent the sudden application of the weight to the person, or its sudden removal.

The head-weights are shielded by guards *k*.

5 If desired, the platform *b* may be held fixed by means of pins *b'*, and pins *l* may be made to support the plate *g'* instead of the springs *j*, and then the apparatus will be rigid—that is, the weight lifted will be a dead-weight.

10 I do not desire to limit this my invention to any particular form of head-piece.

I may, if desired, provide the head-piece with springs, so that as the head-piece is lifted the stress of the springs will be overcome.

15 The cord *h*<sup>2</sup> is extended over suitable pulleys.

Instead of head-weights, it is obvious that I may use equivalents thereof—viz., springs or levers.

20 The apparatus herein shown to fit the head may be applied to my own or any usual lifting-machines.

I claim—

1. In a health-lift or exercising-machine,

a platform and a head-piece, and connected weights or equivalents, substantially as and 25 for the purpose described.

2. In a health-lift or exercising-machine, a cushioned head-piece, a rod to which it is attached, a plate, and attached head-weights, substantially as described. 30

3. In a health-lift or exercising-machine, the head-weights and head-piece, combined with springs to permit the gradual application of the head-weights to the head, substantially as described. 35

4. In a health-lift or exercising-machine, a counterbalanced head-piece and its carrying-rod and locking device, to permit the head-piece to be elevated, substantially as described.

In testimony whereof I have signed my name 40 to this specification in the presence of two subscribing witnesses.

DAVID P. BUTLER.

Witnesses:

G. W. GREGORY,  
JOS. P. LIVERMORE.