(No Model.) 2 Sheets—Sheet 1.

G. J. F. TATE.

PORTABLE EXERCISING STOOL OR CHAIR.

No. 321,157. Patented June 30, 1885.

Fig. 2.

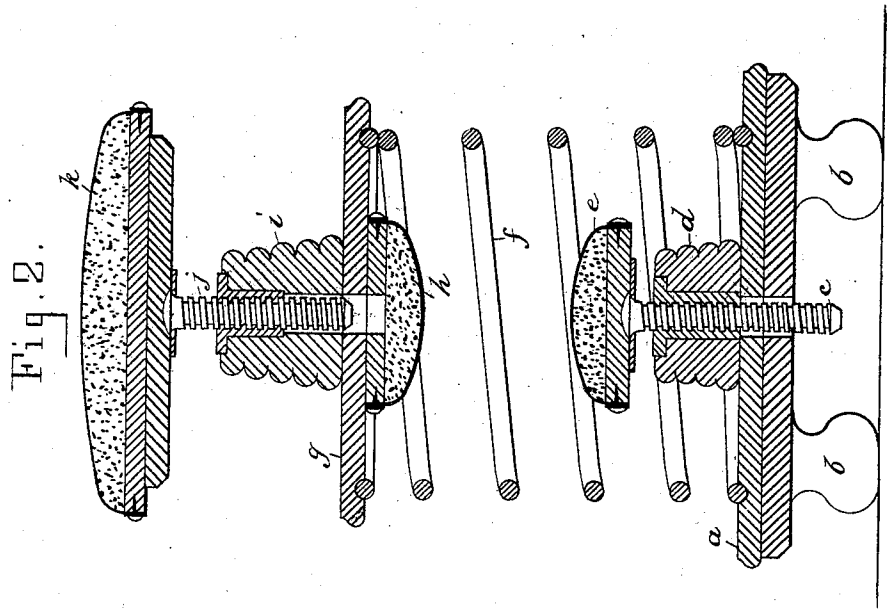
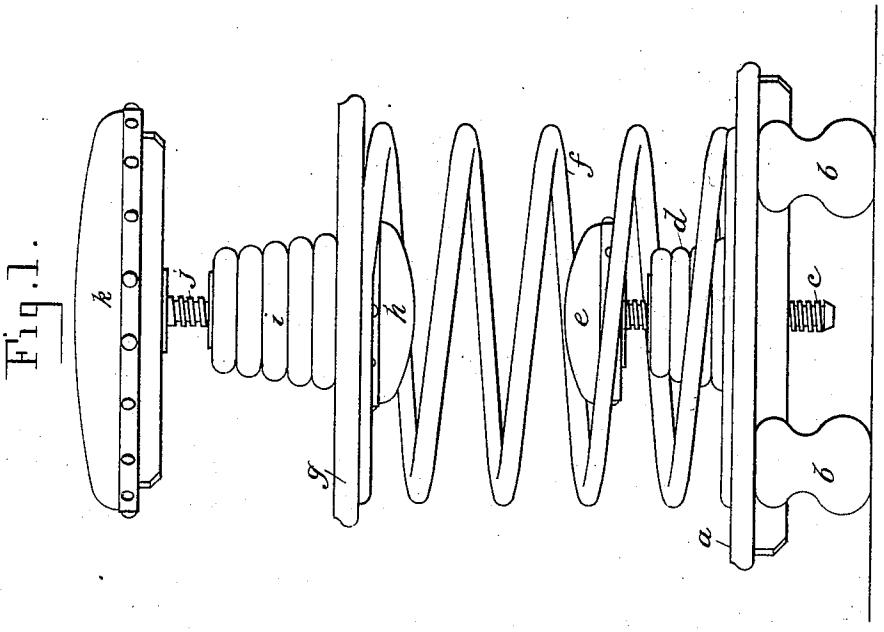


Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

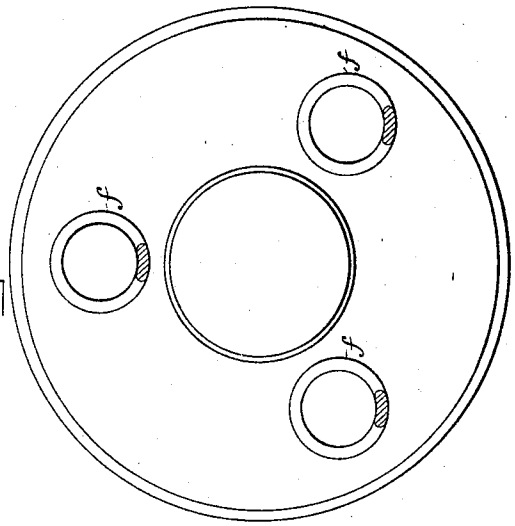


Fig. 5.

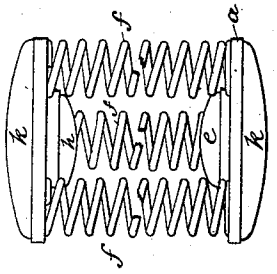
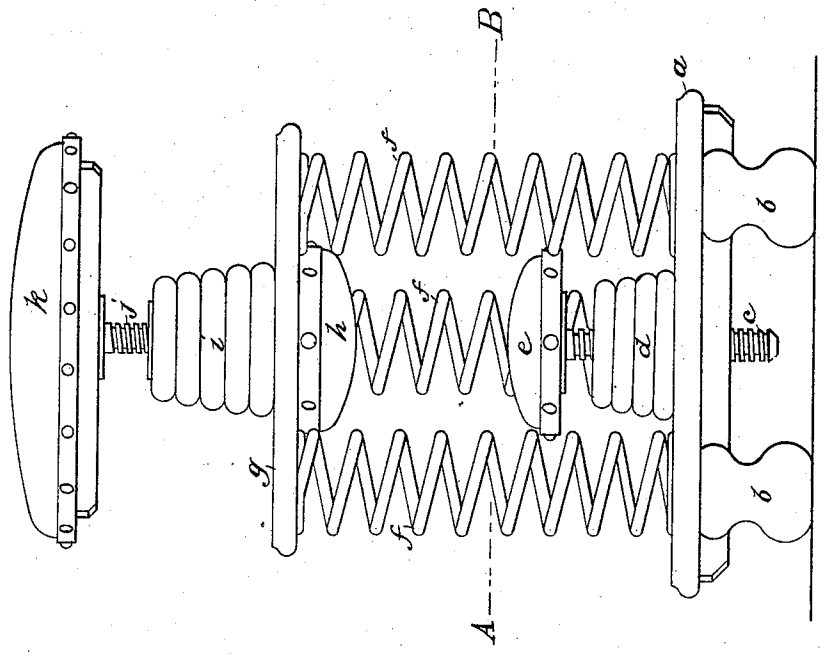


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PORTABLE EXERCISING STOOL OR CHAIR.

SPECIFICATION forming part of Letters Patent No. 321,157, dated June 30, 1885.

Application filed February 16, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE JAMES FREDERICK TATE, a subject of the Queen of Great Britain, residing at London, England, have invented a new and useful Improved Portable Exercising Stool or Chair, of which the following is a specification.

This invention relates to an improved portable exercising stool or chair.

In carrying out the invention I provide a base-plate of wood, metal, or other suitable material, preferably in a circular form, and in the center of this plate I insert an adjustable vertical screw terminating at the top with a stuffed pad to act as a buffer, and for another purpose hereinafter to be described. Upon this base-plate I arrange a strong vertical spiral spring of a slightly less diameter than the base-plate. This spring is sufficiently open to admit of the insertion therein of a person's hand. Upon the top of the spring I place a wood or metal block or plate, having fixed in the center of the downward face a similar stuffed pad to that which is carried upon the screw in the base-plate. Upon the upper portion of the block or plate, as just described, I place a suitable stool or chair seat in such a manner that it can be elevated or lowered either upon the principle of a music stool, seat, or otherwise.

In order to enable my invention to be fully understood I will proceed to describe the same by reference to the accompanying drawings, in which—

Figure 1 represents an elevation, and Fig. 2 a section, of an exercising stool or seat constructed according to my invention and provided with a single spiral spring. Fig. 3 is an elevation, and Fig. 4 a horizontal section on line A B of Fig. 3, showing a stool or seat provided with three of such springs. Similar letters in all the figures represent similar parts. Fig. 5 shows an adaptation of the invention for traveling purposes, the connecting-springs being shown as partially broken away.

a is the base plate of wood, metal, or other suitable material, preferably of a circular form and supported upon a number of feet, *b*. *c* is the adjustable vertical screw, passing through and working in a boss or block, *d*, on the base-plate *a*. *e* is the stuffed pad on the upper end of the screw *c*. *f* is the vertical spiral spring arranged upon the base-plate *a* and of a slightly less diameter than the base-plate *a*, as shown in Figs. 1 and 2; or three or more of such springs *f* of smaller size may be employed, arranged near the edge of the base-plate *a*, as in Figs. 3 and 4, which show my improved stool or seat provided with three springs. *g* is the wood or metal plate fixed on the top of the spring or springs *f*. *h* is the stuffed pad, which I fix upon the underneath side of the plate *g*. *i* is a block or boss on the plate *g*, through which block or boss passes and works a screw, *j*, carrying the seat *k* of the stool, whereby the seat can be raised or lowered in a similar manner to a music-stool to suit the person using the same.

To make use of an apparatus of this construction, when exercise is required, the adjustable pad or buffer *e* is raised or lowered by passing the hand through the spring or between the springs *f* and rotating the pad in the proper direction until it is at a suitable distance from the pad or buffer *h*—say five or six inches therefrom. The height of the seat having been adjusted by rotating the same in the required direction, a person then places himself or herself upon the seat *k*, and by the weight and motion of the body, his or her feet being upon the floor, causes the spring to vibrate downward and upward, producing at each downward motion a concussion of the upper pad or buffer *h* upon the lower pad or buffer *e*, at the same time allowing the body to sway laterally in any direction, so as to give a healthy physical exercise corresponding to that obtained by horse-riding.

When the stool is required to be used as an ordinary seat, it is rendered firm and steady by inserting the hand through the spiral spring or between the spiral springs *f* and screwing out the adjustable pad or buffer *e*, so as to raise the same until it meets the pad or buffer *h*.

For the use of children I fit the seat of the apparatus with a chair back or top, and with a front bar or board to prevent the child from falling out of the chair, and in cases where it is not desired that the child's feet shall rest upon the floor I fit a foot-board to the chair, on which board the child's feet can rest.

Instead of employing a fixed pad or buffer,

h, on the under side of the plate *g*, as described, and shown in the drawings, I sometimes make the same adjustable by means of a regulating-screw in a similar manner to the lower pad or buffer, *e*.

It will be obvious that when a cheap and more portable article is required I can dispense with the hereinbefore-described adjustable seat *k*, in which case the plate *g* serves as the seat, being suitably padded for the purpose; also, the buffer *e* can be fixed instead of being adjustable. This form of the apparatus, which is shown in Fig. 5, is especially suitable for the use of travelers, as it can be packed into a small space. If desired, both the top and bottom plates, *g* and *a*, can be padded, so as to render the apparatus reversible, the feet *b* in this case being dispensed with.

Having now particularly described my said invention, and in what manner the same is to be performed, what I claim is—

1. A spring stool or chair having a pad or buffer, *h*, and an adjustable pad or buffer, *e*, to permit it to act as a bumper with the pad *h* for affording bodily exercise, in combination with a seat adjustable as to its height, the buffers being also adapted to be brought closely together to render the seat firm or rigid, substantially as shown and described.

2. The portable exercising stool or chair consisting in the combination of a base-plate, *a*, and top plate, *g*, a spiral-spring connection on and between such plates, the two bumpers interposed between the plates and surrounded by such spring-connection, and a seat above the top plate, substantially as shown and described.

3. The improved portable exercising stools or chairs consisting of the two plates *a* and *g*, the interposed bumpers, one of which is adjustable, the spring or springs *f*, and the seat above the top plate, substantially as shown and described.

4. The improved portable exercising stools or chairs consisting of the two plates *a* and *g*, the interposed bumpers *e* and *h*, the spring or springs *f*, and the adjustable seat *k*, substantially as shown and described.

5. In combination, the top and bottom plates, *g a*, their top and bottom pads, *e h*, and a spiral-spring connection, serving also the duty of holding or uniting the plates together.

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