J. A. METZGER.

EXERCISING APPARATUS.

APPLICATION FILED MAR. 14, 1919.

1,324,404.

Patented Dec. 9, 1919.

Fig. 1.

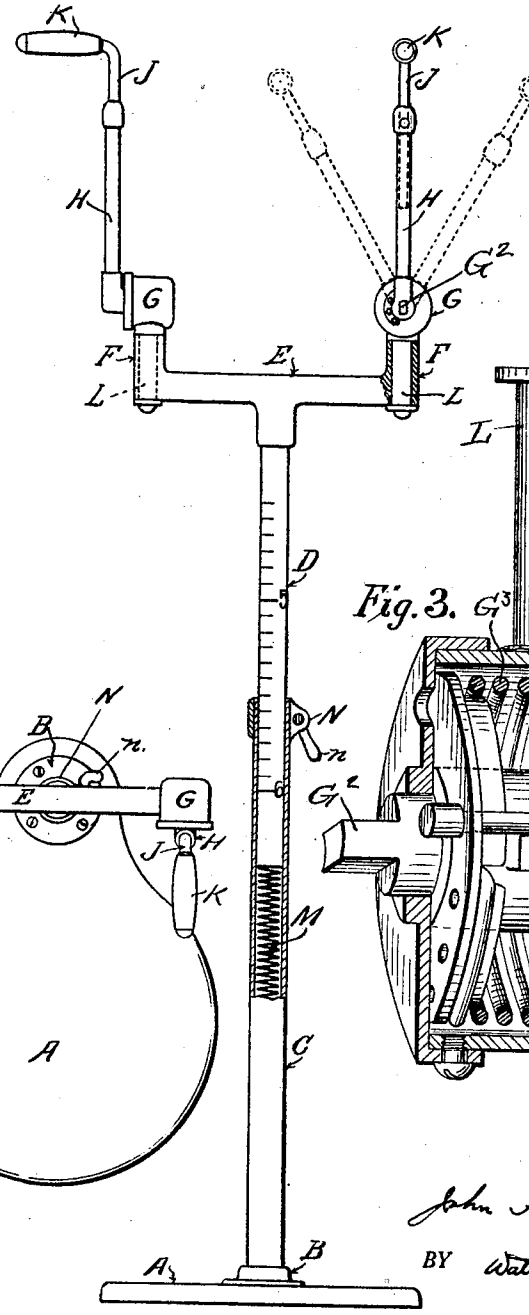


Fig. 3.

Fig. 2.

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EXERCISING APPARATUS.

1,324,404. Specification of Letters Patent. Patented Dec. 9, 1919.

Application filed March 14, 1919. Serial No. 282,590.

To all whom it may concern:

Be it known that I, JOHN A. METZGER, a citizen of the United States, residing at Castleton, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Exercising Apparatus, of which the following is a specification.

My invention relates to exercising apparatus and the objects of my invention are to construct a simple apparatus which may be used in gymnasiums or private houses, as desired, and in which springs will have a tendency to constantly draw upward the arms of the exerciser and have a tendency to expand the walls of the chest and develop the lung capacity of the exerciser.

I accomplish these objects by means of an exercising apparatus constructed as shown in the accompanying drawings, in which—

Figure 1 is a front elevation with parts broken away to show the construction.

Fig. 2 is a plan view of the exercising apparatus.

Fig. 3 is a perspective view, parts broken away, illustrating the spring case group.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings, A represents the base of my exercising apparatus. The base may be set on the floor of a gymnasium or any other room. When my exercising apparatus is used in a gymnasium it may be better to leave off the base and attach the floor flange B directly to the floor thus making a more substantial and firm foundation. C is a tubular post inserted in the base A or floor flange B. D is a shaft slidably adjusted within the tubular post C and is graduated so as to determine the height of the apparatus above the floor. N is a ring clamp, of any desired construction, to hold the shaft D rigid where clamped in the tubular post C.

Mounted on the top end of the shaft D is the T fitting E, on the end of which are formed the bearings F, F adapted to receive the shanks L, L on the spring cases G, G.

Mounted in the spring case G is the shaft G^2 and a double acting spring G^3, said spring being connected to the shaft G^2 in a manner that it will permit said shaft to be forcibly rotated in either direction from a normal position but will return said shaft to said normal position when the force is removed.

The structure in the spring case may be of any suitable design. One well known form in which means are provided for varying the spring tension is illustrated in Fig. 3.

The crank H is mounted on the end of the shaft G^2 so that when the shaft is in normal position the crank H will stand vertically.

J is a longitudinally adjustable handle, of any desirable design, attached to the crank H and having a grip piece K at the end thereof so that the operator may, by means of the handle, move the crank H in any direction and when the power is removed the spring in the case G will return the crank H and the handle J to an upright position. *n* is a clamp handle attached to the clamp N for holding the shaft D in the desired position in the tubular post C.

The operation of my exercising apparatus is as follows: The operator or exerciser stands on the base A, or if there is no base, on the floor, or on the flange adjoining the tubular post C. The height of the shaft D is adjusted so that the spring cases G will come opposite the shoulders of the exerciser. The exerciser then grasps the handle J, by the grip K, and moves the handle J in any direction. The handle J being adapted to move in a full semi-circular movement so the exerciser may move the handle J from the upright position to the hips if desired. The universal springs in the case G allow the handles to be operated in any direction. The stem L, being located in bearings F, allows the handle J to be moved either frontward or backward or sidewise, as may be desired. The springs in the cases G exert a constant and approximately uniform pressure upward so that the exerciser has a constant upward tendency of his arms. The movements are universal, so that they may resemble the throwing of a ball, or swinging of Indian clubs, or exercise with dumb bells. It will be observed that the grip K may be adjusted to the desires of the exerciser. The spring M is located in the tubular post C, below the shaft D, and is adapted to counteract the weight of the upper portions so that the height may be easily adjusted.

Constructed in this way my exercising apparatus may be readily used in a private house, or gymnasium, or any other place, as

desired, and will have a constant tendency to expand the lungs and chest of the exerciser and develop deep breathing, as may be desired.

What I claim as my invention and desire to secure by Letters Patent is—

1. In an exercising apparatus, a vertical shaft, a cross bar attached to the top of said vertical shaft, a spring case mounted on each end of said cross bar, a shaft mounted in each spring case, a double acting spring mounted in each spring case, a handle mounted on the end of each shaft whereby said shaft may be rotated in either direction against the tension of said spring.

2. In an exercising apparatus, an adjustable vertical shaft, means for supporting said vertical shaft, a cross bar attached to the top of said vertical shaft, bearings located in the ends of said cross bar, spring cases having shanks adapted to operate in said bearings, a double acting spring mounted in each of said spring cases, a shaft mounted in each of said spring cases, an adjustable handle mounted on each of said shafts, means for connecting said shafts to said double acting springs whereby said shafts may be rotated in either direction against the tension of said springs by applying force to said handle, substantially as described and for the purposes set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JOHN A. METZGER.

Witnesses:
WALTER E. WARD,
MINNIE MONTANYE.