

April 15, 1924.

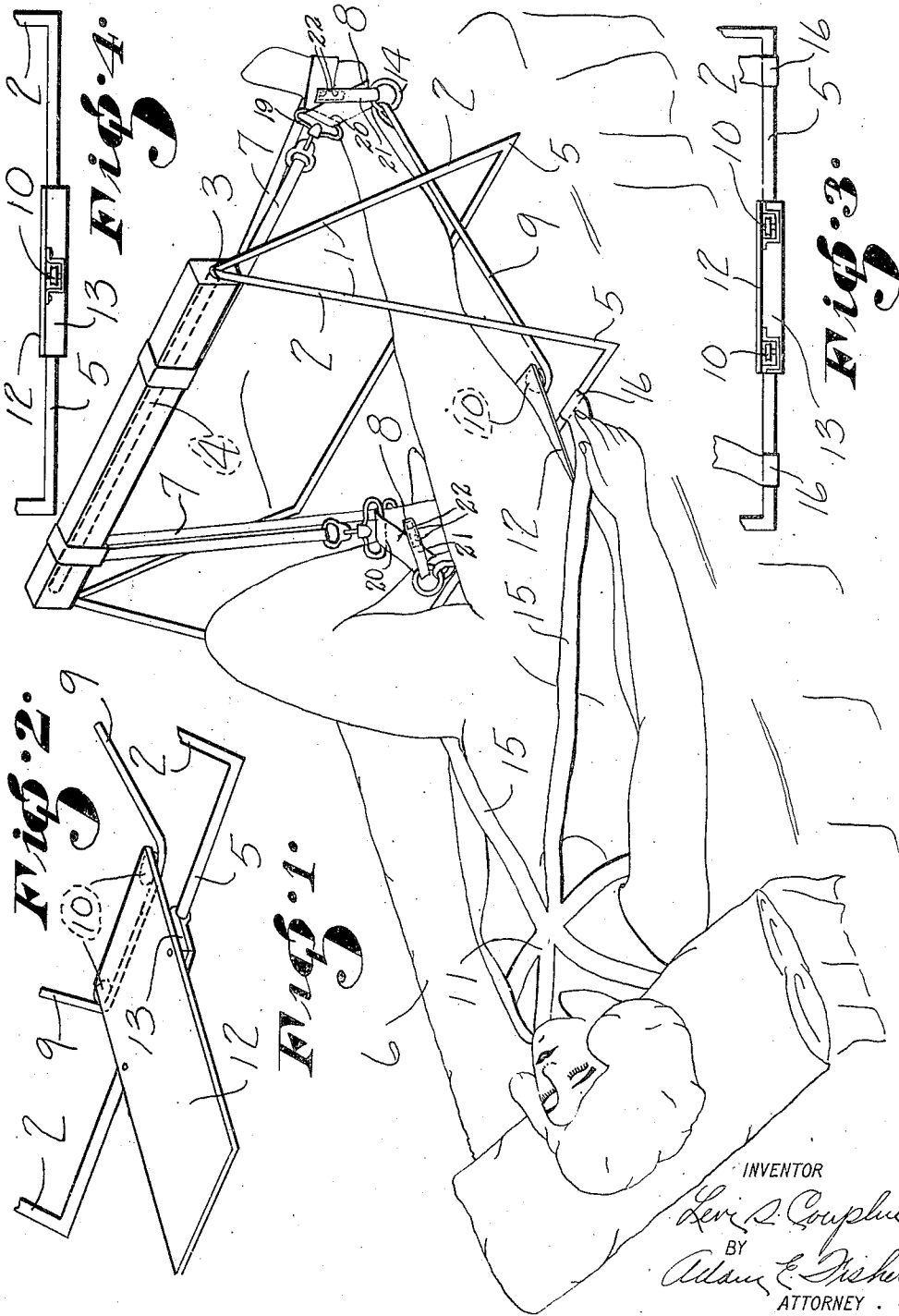
1,490,363

L. S. COUPLIN

EXERCISER

Filed Oct. 6, 1922

2 Sheets-Sheet 1



INVENTOR

L. S. Couplin
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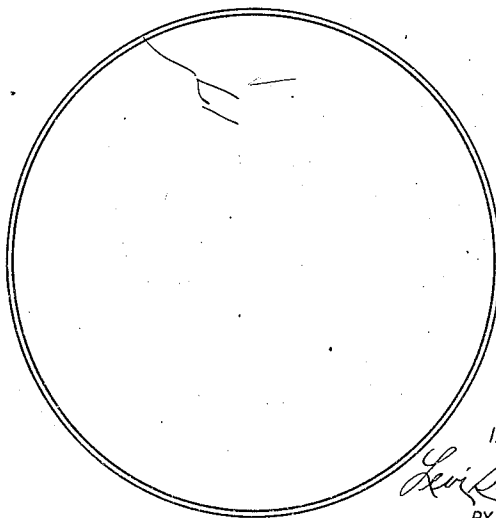
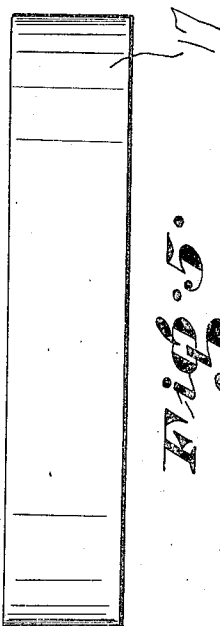
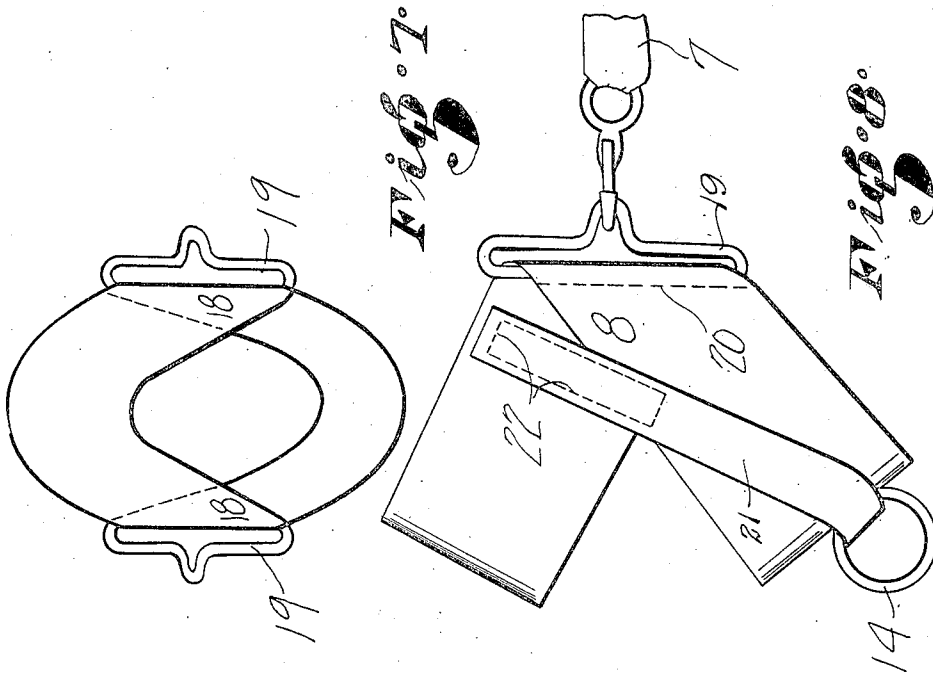
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

LEVI S. COUPLIN, OF ST. LOUIS, MISSOURI.

EXERCISER.

Application filed October 6, 1922. Serial No. 592,737.

To all whom it may concern:

Be it known that I, LEVI S. COUPLIN, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have
 5 invented new and useful Improvements in Exercisers, of which the following is a specification, reference being had to the accompanying drawing.

This invention is in the way of an exercising device, and the object is to provide
 10 an apparatus for exercising the lower limbs, and the muscles thereof, including the lumbar muscles and the entire spinal column; also the abdominal muscles. In the case of
 15 women, great relief is also afforded various pelvic diseases, in which they are subject to venous congestion; this congestion being relieved through the recumbent position of the
 20 body, assisted by gravity and the slight elevation of the limbs, and the pressure through muscular action upon the veins. All this is done while the person reclines
 25 in bed or on the floor, as may be desired, and all without over-taxing the heart or lungs.

In the drawing:

Figure 1 is a perspective view of the apparatus in use.

30 Figure 2 is a detail, showing the method of mounting the body rest to the frame.

Figure 3 is a front edge view of the body rest.

35 Figure 4 is a detail, showing as a modification, the employment of only one cable pulley under the front end of the body rest, instead of two as shown in the other figures.

40 Figures 5, 6, 7 and 8 illustrate one suitable and convenient form of foot stirrup. Figures 5 and 6 are side and edge views respectively of a band of canvas from which the stirrup is made. Figures 7 and 8 are front and side views respectively of the completed stirrup.

45 The invention consists of a suitable foldable supporting frame 1, made up of two rectangular frames 2 of rod iron or other suitable material, and hingedly connected together at their upper sides as shown at
 50 3. This hinged connection may be conveniently made by running these upper rods through a bar of wood 4; or by any other conventional method. The lower portions
 5 of the frames 2 are thus adapted to swing

apart and so act as a support upon the bed
 6. From the supporting frame so formed are suspended two spaced slings 7 of any suitable material such as rope, chain or the like, and which carry at their lower ends
 8 the stirrups 8, adapted to releasably engage
 60 the feet of the person using the apparatus. A body rest 12 is hinged at 13 to the foot-rod of one of the frames 2, and two pulleys
 10 are journaled under this body rest, one at each forward corner thereof. A cable
 65 9, of suitable length has its ends attached to the stirrups 8 through the rings 14, and its medial portion is then extended over the
 70 pulleys 10. A yoke 11 is provided, adapted for placing upon the shoulders of the operator, and side straps 15 extend from this
 75 yoke and connect with the foot rod at the points 16. These straps serve to brace the operator for pushing with his feet against
 80 the stirrups 8. The operator, in using the device, lies upon his back and with the hips resting upon this body board. The operator
 85 may now swing or move his legs alternately up and down by bending them at the hips and knees and allowing the cable
 9 to run over the pulley 10. By tensing each leg alternately against the other in a well known way, the operator may obtain
 90 the benefit and strengthening effect of such tensing exercises. As stated and as shown,
 85 this apparatus enables one to take these exercises in bed or on the floor, and they yield the substantial benefits of actual walking
 90 exercise, without the attendant danger of overtaxing the heart.

If desired, only one pulley 10 may be employed, in which case it may be located under the body board 12 at the central, forward point thereof, as shown in Figure 4 and the cable 9 extended over it in that
 95 position.

A suitable form of stirrup 8 is shown in Figures 5, 6, 7 and 8. A band 17 of strong canvas is folded or buckled upon itself as shown at 18, a wire loop 19 being enfolded
 100 at each side and stitched in place by stitching 20. A strap 21 has its ends stitched at 22 to each side stirrup so formed, and a ring 14 is mounted on the straps for engaging the ends of the cable 9, as explained.
 105

While I have herein described a certain specific method of constructing and assembling the elements of my invention, it is

understood same may be varied in minor details, not departing from the spirit of my invention as defined in the appended claims.

I claim:

- 5 1. An exerciser for the human body, comprising a supporting frame; foot slings suspended from the frame; a body rest on the base of the frame; pulleys on the body rest; and a cable extended over the pulleys and attached by its ends to the said slings.
- 10 2. An exerciser for the human body, comprising a supporting frame; foot slings suspended from the frame; a body rest on the base of the frame; pulleys on the body rest; a cable extended over the pulleys and
- 15

attached by its ends to the said slings; a yoke for the shoulders of the operator and side straps extended from the yoke of the said body rest.

3. A stirrup for a body exerciser, comprising a band of fabric folded and stitched upon itself at right angles at opposite points; wire loops embraced in the fold at each side; and a ring supporting strap stitched by its ends to the stirrup so formed.
- 20

LEVI S. COUPLIN.

Witnesses:

ADELE K. DOHLE,
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