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PHYSICAL CULTURE APPARATUS

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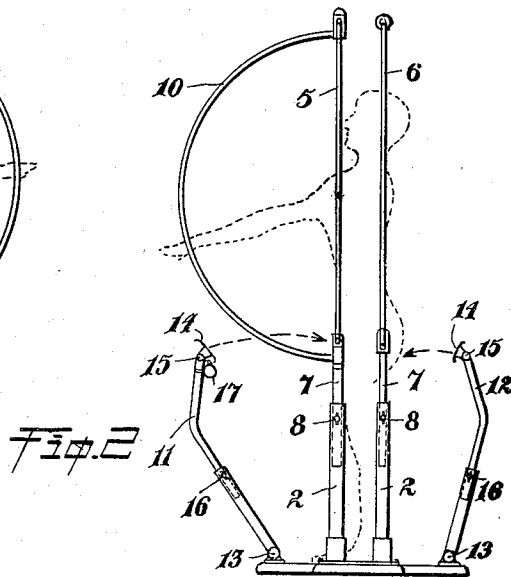
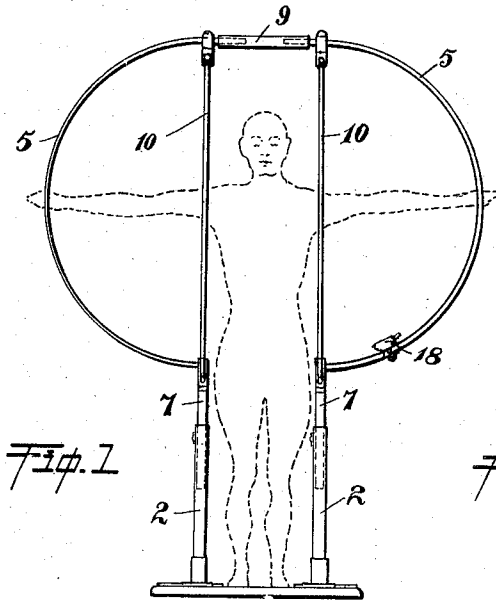


Fig. 4

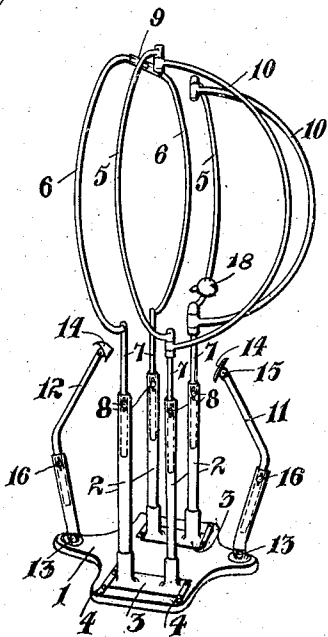
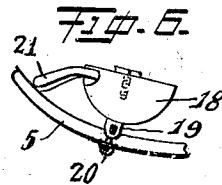
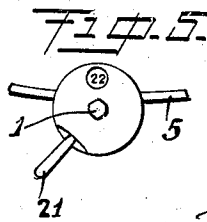
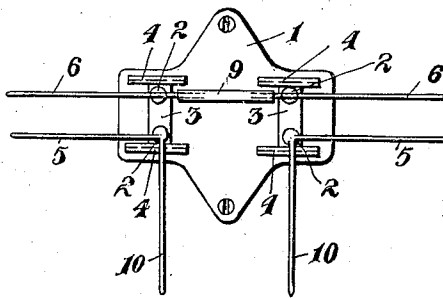


Fig. 3



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PHYSICAL-CULTURE APPARATUS

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My invention relates to apparatus for use in connection with physical culture exercises.

The object of my invention is to provide an apparatus of the above type particularly for
5 guiding the limbs of the body in prescribed paths and holding parts of the body in the desired planes during such physical exercises, such as, for instance, those prescribed by the Mensendieck system.

10 A further object of my invention is to provide an apparatus of the above type which is readily adjustable, has few parts, is simple and cheap to manufacture.

I attain these objects by the apparatus illustrated by way of example in the accompanying drawings and described more fully hereinafter.

In the drawings, which are somewhat diagrammatic in character,

20 Fig. 1 is a front elevation, with the front and rear body supports omitted;

Fig. 2 is a side elevation;

Fig. 3 is a plan of the apparatus,

Fig. 4 is a perspective view of same,

25 Fig. 5 is a plan view of a suitable form of exercise counting or registering device and Fig. 6 is a side elevation thereof.

Similar reference numerals refer to similar parts throughout the several views.

30 The apparatus is mounted on and secured to a base plate 1, made from any suitable material. On this base plate 1, are mounted four uprights 2, which are preferably tubular in form. These four uprights 2 are
35 mounted in pairs on two connecting pieces 3, one on either side of the base plate 1, and are so spaced thereon as to permit an arm of the person using the apparatus to pass freely between each pair of uprights 2. Each connecting piece 3 slides in guideways 4 attached
40 to the base plate so that the two pairs of uprights 2 may be adjusted relatively to each other to set them such a distance apart as to permit the user of the apparatus to step between the two pairs of uprights 2. Thus,
45 the size of the user of the apparatus determines the required amount of lateral adjustment of the connecting pieces 3, carrying the uprights 2, in the guideways 4.

50 Curvilinear or D-shaped members 5, 6, are

secured to the uprights 2. Each of these curvilinear members 5, 6, is provided at its lower end with a straight rod section 7, which slidingly fits into the respective upright 2, so that by telescoping the same in or out, the
55 members 5, 6, may be vertically adjusted according to the height of the person using the apparatus, and are locked in the adjusted position by set screws 8. The vertical adjustment of these curvilinear members 5, 6, is
60 preferably such that the point where the rod-like extension 7 is attached to the respective curvilinear member 5 or 6 will be in a line with the wrist when the hand is touching the thigh with the arm hanging straight down.
65 Another method of determining quickly whether the right vertical adjustment is secured is to see whether the center of the arm-pit coincides approximately with the center from which the semicircles of the lateral curvilinear members 5, 6, are struck. Two equidistant curvilinear or D-shaped members 5, 6, extend to either side of the user of the apparatus, the distance separating the curvilinear or hoop-shaped members being determined by the spacing of the uprights 2 on
70 their connecting pieces 3. The two rear curvilinear or D-shaped members 6 are adapted to be closed at the top by a straight tubular and slidable connecting member 9, which
75 keeps the D-shaped members the same distance apart as the distance separating the laterally adjustable pairs of uprights 2.

The extensions 7 of the two front uprights 2 as seen by the user of the apparatus when
80 he has stepped between the uprights, have secured to them two additional similar curvilinear or D-shaped members 10 extending in a forward direction and at right angles to the two front curvilinear members 5, the
85 manner of attachment being the same for the front laterally extending curvilinear members 5 and the forwardly extending curvilinear member 10.

Further, two body supports 11, 12, are secured to the base plate 1, one at the forward end and the other at the rearward end thereof. These supports 11, 12, are adapted to turn at their bottom ends about pivots 13, and are telescopically adjustable so that they
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may be lengthened or shortened as the case may be. At the upper end of each of these supports 11, 12, there is provided a small movable and suitably shaped plate 14, pivoting at 15. The supports 11, 12, are bent in such a manner that, after they have been telescopically adjusted to suit the size of the user of the apparatus and locked in such adjusted position by means of set screws 16, they may be swung towards the body of the person by turning them about their pivots 13, as indicated by the arrows in Fig. 2, so that the movable and suitably triangular head plate 15 of the front support 11 comes into contact with the abdomen of the person beneath the navel, whereas the similar rear support plate 15 comes into contact with the person's seat, the edges of both plates 15 being suitably curved or bent back. Suitable means, such as lock nuts or the like, may be provided for preventing the supports 11, 12 from turning about their bottom pivots 13 after said supports have been swung into position against the body.

The person, after having stepped between the uprights, drops the arms straight down so that the hands rest against the thighs. The arms are now raised in a forward direction until they are lifted up vertically above the head. While thus raising the arms, the hands slide along the front curvilinear members 10, preventing the arms from being deflected laterally. Thereupon the arms are swung downwardly from their raised position so that they hang down again with the hands touching the thighs. During this downward movement of the arms, the same are forced to travel between the two lateral pairs of curvilinear members 5, 6, thus preventing same from being deflected from their prescribed course either in a forward or rearward direction. The plates 14 of the supports 11, 12, ensure that the abdomen and the seat remain in their drawn-in position during the exercises.

Various attachments, such as bells and other indicators, as well as exercise-counting devices, may be provided on the apparatus. In one form of the invention, this indicator may take the form of a small bell 17 (Fig. 2) which is attached to the plate 14 in such manner that, should the user of the exercising device push out his abdomen involuntarily while doing the exercise, this movement of the abdomen will react upon the plate 14 and cause the bell to ring, thereby drawing the attention of the user to the fact that his abdomen is in the wrong position for the proper carrying out of the exercises.

A form of the exercise counting device is shown by way of example at 18 in Figures 1 and 4 and more in detail in Figs. 5 and 6. The same comprises a casing 18 secured by means of a clip 19 and clamping screws 20 for instance to one of the curvilinear mem-

bers 5 at a point located toward the end of the prescribed path of the arm movement. From the casing 18 projects a lever 21 which is touched by the hand in passing downward and thus operates a counting mechanism located inside the casing 18 which registers the number of exercises as shown at 22. The counting mechanism itself does not form a part of this invention so that it will not be necessary to describe the same more in detail.

The details of the apparatus described hereinbefore may be modified without departing from the scope of the spirit of my invention; so, for instance, one of the pairs of curvilinear arm guiding members might be omitted, depending upon the nature of the exercises to be performed with the aid of the apparatus.

In the claim, by the expression "limb movement guiding means," I mean guiding means shaped to correspond to the path of movement of a limb, such as the parts 5 shaped to correspond to the path of movement of the arm, and I do not mean stationary devices for pressing against a limb, such as are used in devices for correcting bowleggedness.

Having thus described my invention, I claim:

1. A physical culture apparatus, including a support and limb movement guiding means on said support, forming a stationary path of curvilinear character, whereby the user may follow said path with parts of his body to exercise said parts.

2. A physical culture apparatus, comprising a support and a plurality of D-shaped limb movement guide members on said support.

3. A physical culture apparatus, comprising a support and a plurality of curvilinear limb movement guide members on said support.

4. A physical culture apparatus, comprising in combination a vertically adjustable tubular structure, mounted on laterally adjustable uprights and consisting of two parallel pairs of lateral curvilinear guide members and two forwardly extending similar curvilinear guide members arranged at right angles to the front pair of said lateral curvilinear guide members so as to guide the movements of the arms of the person using the apparatus in prescribed paths, and two adjustable supports, mounted on a base which also carries the uprights for the vertically adjustable tubular structure, one of said supports serving for holding the abdomen and the other for holding the seat of the user of the apparatus in a retracted position during the exercises.

5. A physical culture apparatus, comprising in combination a base plate, four uprights mounted thereon in pairs, on two laterally

disposed and slidably adjustable connecting pieces, each upright carrying a vertically adjustable, curvilinear member, said curvilinear members being arranged to form two pairs of equidistant lateral arm guides and two forwardly extending curvilinear arm-guiding members attached vertically adjustably to the two front uprights and at right angles to the front pair of lateral arm-guiding members, and two pivotally mounted and telescopically adjustable bent body supports mounted on the forward and rearward ends respectively of the base plate, one for holding the abdomen and the other for holding the seat of the user of the apparatus in an indrawn position during the performance of the exercises.

6. A physical culture apparatus, comprising in combination a base plate, four tubular uprights mounted thereon in pairs on two laterally disposed, connecting pieces adapted to slide laterally in guideways on the base plate, extension members in telescoping connection with said uprights, each extension member carrying a curvilinear member, said curvilinear members forming two parallel pairs of both vertically and laterally adjustable lateral arm guides, two additional forwardly extending arm guides attached to the vertically adjustable extensions of the front pair of uprights at right angles to the front pair of lateral arm guides and vertically adjustable therewith, a slidable member for adjustably connecting the tops of the two rear lateral arm guides, and two pivotally mounted body supports arranged at the forward and the rearward ends respectively of the base, said supports consisting of bent, pivotally mounted, extensible tubular members carrying pivotally adjustable head plates for coming into contact with the abdomen and the seat respectively of the user of the apparatus to hold these parts in their indrawn position during the exercises.

7. A physical culture apparatus, comprising in combination a vertically adjustable, arch-shaped tubular frame forming a gateway and consisting of two parallel pairs of curvilinear members mounted on uprights and extending laterally therefrom, and of two forwardly extending similar curvilinear members mounted on the two front uprights and forming right angles with the two front lateral curvilinear members so as to guide the arms of a person standing between the two parallel lateral pairs of curvilinear members in paths prescribed by the two lateral pairs of curvilinear members and by the pair of forwardly extending curvilinear members, a bent supporting arm mounted forwardly on a base plate and adapted to contact with the abdomen, and a similar bent supporting arm arranged in the rear and adapted to contact with the seat of the body of the person using the apparatus so as to hold these parts in their proper retracted position during the

exercises, said body supporting means being provided with suitable triangular head plates having their edges bent backwards.

8. An apparatus for guiding the arms while performing physical exercises, comprising a vertically adjustable tubular framework, consisting of curvilinear members mounted on adjustable uprights on a base plate and forming paths for the movements of the arms, adjustable front and rear body supports mounted on said base plate and means associated with the apparatus for giving audible indications when parts of the body are in the wrong position for the proper carrying out of the exercises.

9. In a physical culture apparatus, a vertically adjustable frame formed of lateral curvilinear arm-guiding members mounted on uprights, and of forwardly extending, vertically adjustable curvilinear arm-guiding members extending at right angles to said lateral arm guides.

10. An apparatus according to claim 9, comprising in addition forward and rearward adjustable body supports mounted on a base plate which also carries the uprights.

11. A physical culture apparatus including a support and guiding means on said support forming a stationary path of predetermined character, so that the user may follow said path and comprising in addition attachments secured to the guiding means for counting the number of exercises.

12. A physical culture apparatus, including a support and adjustable semi-circular guiding means telescopically mounted on said support and forming a stationary path of a predetermined character for guiding the movements of the arms during the exercises.

13. A physical culture apparatus comprising a support and a plurality of adjustable curvilinear guiding means each provided at its lower end with a straight-rod section mounted on and adapted to telescope in or out of said support for keeping the exercising movements of the arms within predetermined stationary paths formed by said curvilinear guiding means.

14. A physical culture apparatus including a support and telescopically adjustable guiding means on said support forming a stationary path of a predetermined character for guiding the movements of the arms during the exercises and telescopically adjustable arms also arranged on said support for guiding and determining the correct position of the abdomen and buttocks during the exercises.

In testimony whereof, I hereto affix my signature.

BESS M. MENSENDIECK.