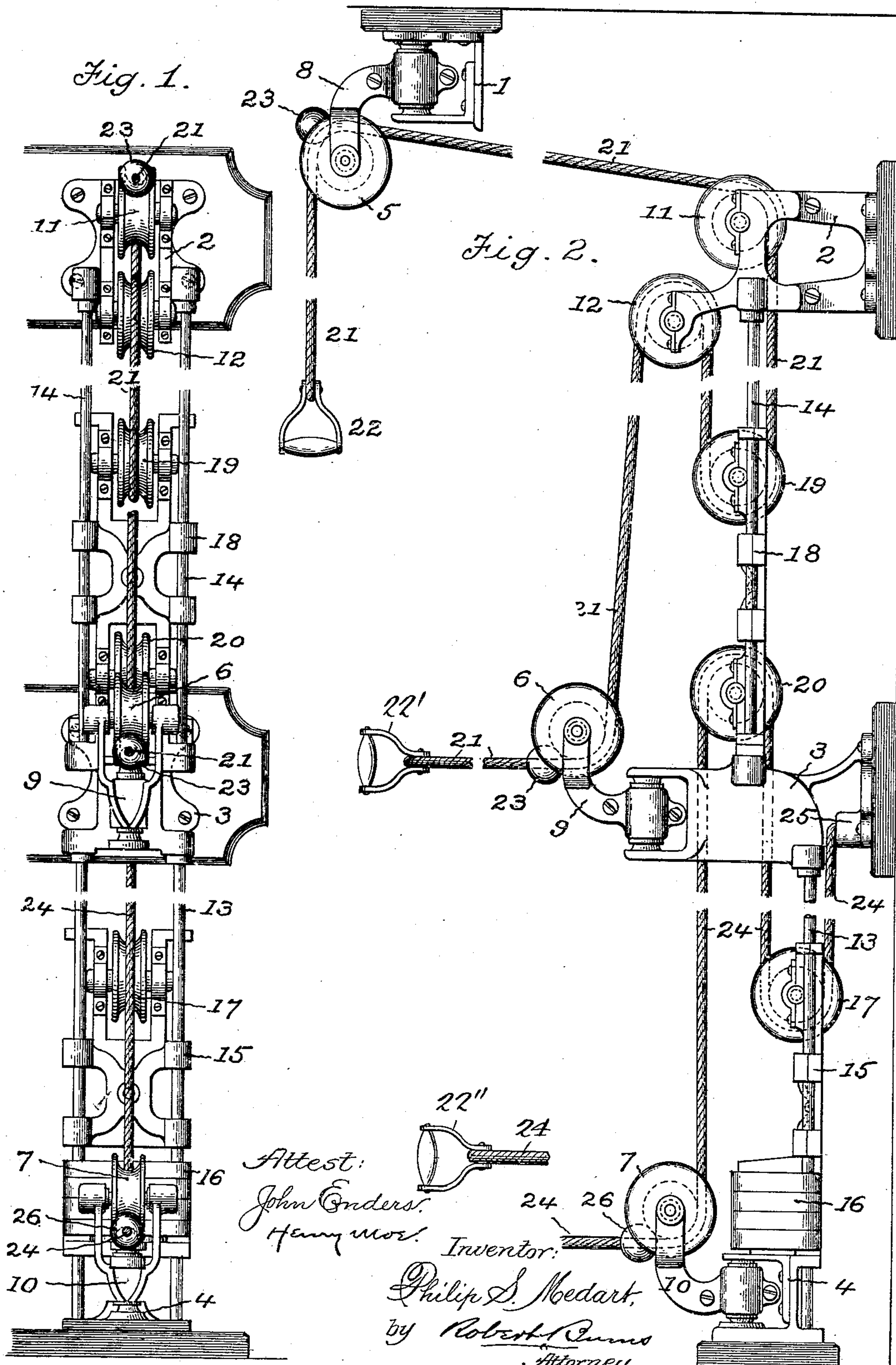


P. S. MEDART.  
EXERCISING APPARATUS.  
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931,699.

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# UNITED STATES PATENT OFFICE.

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## EXERCISING APPARATUS.

No. 931,699.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed February 2, 1909. Serial No. 475,696.

*To all whom it may concern:*

Be it known that I, PHILIP S. MEDART, a citizen of the United States of America, and a resident of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Exercising Apparatus, of which the following is a specification.

This invention relates to the triple pull type of exercising apparatus employed in attaining the intercostal, upperchest and back-and-loin movements. And the present improvement has for its object to provide a simple and efficient structural arrangement and combination of parts wherewith the intercostal and chest movements are attained with the one pull rope and in a uniform manner, all as will hereinafter more fully appear.

In the accompanying drawings: Figure 1, is a front elevation of one unit of an exercising apparatus, embodying the present invention. Fig. 2, is a side elevation of the same.

Similar numerals of reference indicate like parts in both views.

Referring to the drawings, 1 represents the upper vertical pulley bracket; 2 the upper horizontal pulley bracket; 3 the intermediate horizontal pulley bracket, and 4 the lower vertical pulley bracket of one unit of the present apparatus, and in which a pair of said units are arranged side by side in spaced relation to form the complete apparatus. Said brackets are secured to the ceiling, side wall and floor of a room as usual and carry a series of grooved pulleys hereinafter more particularly described and around which the pull ropes travel in the practical use of the apparatus.

5, 6 and 7 are the respective pulleys of the upper vertical bracket 1, intermediate horizontal bracket 3, and lower vertical bracket 4; and 8, 9 and 10, are angle yokes carrying said pulleys and having vertical bearings in the aforesaid brackets as shown, and so as to be capable of swivel movements in horizontal planes in actual use.

11 and 12 are the pulleys of the upper horizontal bracket 2; the shafts of said pulleys are journaled in horizontal bearings in said bracket and said bearings are arranged one above the other and out of vertical alignment, as shown, in order to hold the loops in the pull rope passing over the same in

proper separated relation and prevent interference.

13 are vertical rods extending between the intermediate horizontal bracket 3, and the lower vertical bracket 4, to constitute a slideway for the weight carriage hereinafter described.

14, are vertical rods extending between the upper and intermediate horizontal brackets 2 and 3, to constitute a slideway for the pulley carriage hereinafter described.

15, is a carriage sliding vertically on the rods 13, aforesaid, and carrying near its lower end the series of weights 16. Near its upper end said carriage is provided with a pulley 17 turning in horizontal bearings, as shown.

18, is a carriage sliding vertically on the rods 14; aforesaid and provided with upper and lower pulleys 19 and 20, turning in horizontal bearings on said carriage as shown.

21, is the upper pull rope which in the present improvement is provided at its respective ends with grasping means, such as the usual stirrup handles 22, shown in Fig. 2. Said pull rope extends around the pulley 5 of the upper vertical bracket 1, thence around the pulley 11 of the upper horizontal bracket 2, thence around the upper pulley 19 of the pulley carriage 18, thence around the pulley 12 of the upper horizontal bracket 2, and thence around the pulley 6 of the intermediate horizontal bracket 3, ending in a grasping means such as the handle 22, shown at its other end in Fig. 2. 23 are ball stops secured to said pull rope near its respective ends, and adapted to limit the travel of the pull rope over the series of pulleys above described, as well as constitute a stop for one end of the rope when a pulling action is exclusively made on the opposite end of the pull rope.

24 is the lower pull rope, provided at one end with a grasping means, such as a stirrup handle 22'. At its other end said pull rope is secured to an attaching socket 25 on the intermediate horizontal bracket 3. From the described point of attachment the lower pull rope extends around the pulley 17 of the weight carriage 15, thence around the pulley 20 of the pulley carriage 18, and from thence around the pulley 7 of the lower vertical bracket 4 to the grasping means aforesaid. 26 is a ball stop on said lower pull rope, near



the free end of the same, and adapted to limit the travel of the series of pulleys above described.

With the present arrangement of the upper pull rope 21, the intercostal and the upper chest movements are attained under a like and uniform stress, in the one case by pulling on the handle 22 at the uppermost end of the upper pull rope 21, and in the other case by pulling on the handle 22 at the undermost end of said upper pull rope 21, and said movements may be effected simultaneously when so desired, and therein is functionally distinguished from prior constructions now in general use and in which the intercostal movement is attained with a pull rope distinct from the pull rope with which the upper chest movement is attained.

The operation of the apparatus in other particulars is the same as the triple pull exercising apparatus now in general use and accordingly the back-and-loin movement is attained by pulling on the handle 22' at the free end of the lower pull rope 24. In such movement a pull on the rope 24 imparts upward movement to the weight carriage 15, through the instrumentality of the carriage pulley 23, weight carriage pulley 17 and pull rope 24 attached at one end and to the attaching socket 25 of the bracket 3.

As in the older constructions above referred to, an individual pull on anyone of the three handles, in attaining the different exercising movements above stated, or a collective pull on two or more of said handles, will be transmitted to the common weight 16, and the resistance stress afforded by such weight will remain constant, while the distance the weight will be raised will vary in accordance with a pull on a single handle or a simultaneous pull on any two handles.

In attaining the intercostal movement singly, the user pulls on the handle 22, at the uppermost end of the pull rope 21, to first bring the stop 23 on the lowermost portion of said rope against the pulley 6 and its housing to stop further movement of such portion of the pull rope. Further pull on the aforesaid handle 22, imparts upward movement to the carriage 18, through the instrumentality of the fixed pulleys 11, 12, pull rope 21 and carriage pulley 19, and such upward movement of the carriage 18 is in turn imparted to the weight carriage 15, through the instrumentality of the carriage pulleys 20, 17, the fixed pulley 7 and lower pull rope 24; which lower pull rope, in the present operation, is held against travel by its stop 26 engaging the pulley 7 and its housing, as illustrated in Fig. 2.

In attaining the upper-chest movement singly, the user pulls on the handle 22' on the lowermost end of the pull rope 21, to first bring the stop 23 on the uppermost portion of said rope against the pulley 5 and its

housing to stop further movement of such portion of the pull rope. Further pull on the aforesaid handle 22' imparts upward movement to the carriage 18, through the instrumentality of the fixed pulleys 11, 12, pull rope 21, and carriage pulley 19, and such upward movement of the carriage 18 is in turn imparted to the weight carriage 15, through the instrumentality of the carriage pulley 20, 17, the fixed pulley 7, and lower pull rope 24; which lower pull rope, in the present operation, is held against travel by its stop 26 engaging the pulley 7 and its housing, as shown in Fig. 2.

In attaining the intercostal and upper-chest movements simultaneously, the movements of the carriage 18 and weight carriage 15 will be effected by both the uppermost and lowermost portions of the pull rope 21, in the same manner as above set forth in the attainment singly after aforesaid intercostal and upper-chest movements, and said carriages will accordingly receive a correspondingly increased travel.

Having thus fully described my said invention what I claim as new and desire to secure by Letters Patent, is:

1. An exercising apparatus comprising in combination, an upper vertical bracket, a pulley carried thereon, an upper horizontal bracket, a pair of pulleys carried thereon, a slideway located below the upper horizontal bracket, a pulley carriage moving on said slideway, a pair of pulleys carried thereon, an intermediate horizontal bracket, a pulley carried thereon, a slideway located below the intermediate horizontal bracket, a weight carriage moving on said slideway, a pulley and a weight mounted on said carriage, a lower vertical bracket, a pulley carried thereon, an upper pull rope extending around a pulley of the upper vertical bracket, upper horizontal bracket, pulley carriage and intermediate horizontal bracket, stops near each end of said rope, a lower pull rope passing around a pulley of the weight carriage, pulley carriage and lower vertical bracket, and a stop near the free end of said lower pull rope, substantially as set forth.

2. An exercising apparatus comprising in combination, an upper vertical bracket, a pulley carried thereon, an upper horizontal bracket, a pair of pulleys carried thereon, a slideway located below the upper horizontal bracket, a pulley carriage moving on said slideway, a pair of pulleys carried thereon, an intermediate horizontal bracket, a pulley carried thereon, a slideway located below the intermediate horizontal bracket, a weight carriage moving on said slideway, a pulley and a weight mounted on said carriage, a lower vertical bracket, a pulley carried thereon, an upper pull rope extending around a pulley of the upper vertical bracket, upper horizontal bracket, pulley carriage and in-



intermediate horizontal bracket, stops near each end of said rope, a lower pull rope attached at one end to the intermediate horizontal bracket and extending around a pulley of the weight carriage, pulley carriage and lower vertical bracket, and a stop near the free end of said lower pull rope, substantially as set forth.

3. An exercising apparatus comprising in combination, an upper vertical bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, an upper horizontal bracket, a pair of pulleys carried thereon, a slideway located below said upper horizontal bracket, a pulley carriage moving on said slideway, a pair of pulleys mounted on said carriage, an intermediate horizontal bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, a slideway located below the intermediate horizontal bracket, a weight carriage moving on said slideway, a pulley and a weight mounted on said carriage, a lower vertical bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, an upper pull rope extending around a pulley of the upper vertical bracket, upper horizontal bracket, pulley carriage and intermediate horizontal bracket, stops near each end of said rope, a lower pull rope passing around a pulley of the weight carriage, pulley carriage and lower vertical bracket, and a stop near the free end of said lower pull rope, substantially as set forth.

4. An exercising apparatus comprising in combination, an upper vertical bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, an upper horizontal bracket, a pair of pulleys carried thereon, a slideway located below said upper horizontal bracket, a pulley carriage moving on said slideway, a pair of pulleys mounted on said carriage, an intermediate horizontal bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, a slideway located below the intermediate horizontal bracket, a weight carriage moving on said slideway, a pulley and a weight mounted on said carriage, a lower vertical bracket, a pulley carried by an angle yoke having a vertical bearing on said bracket, an upper pull rope extending around a pulley of the upper vertical bracket, upper horizontal bracket, pulley carriage and intermediate horizontal bracket, stops near each end of said rope, a lower pull rope attached at one end to the intermediate horizontal bracket and extending around a pulley of the weight carriage, pulley carriage and lower vertical bracket, and a stop near the free end of said lower pull rope, substantially as set forth.

Signed at St. Louis, Mo., this 28 day of January 1909.

PHILIP S. MEDART.

Witnesses:

WALTER RICHARDSON,  
EDW. J. MEDART.