

A. J. THORNLEY.
GYMNASIUM APPARATUS.
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1,041,701.

Patented Oct. 15, 1912.

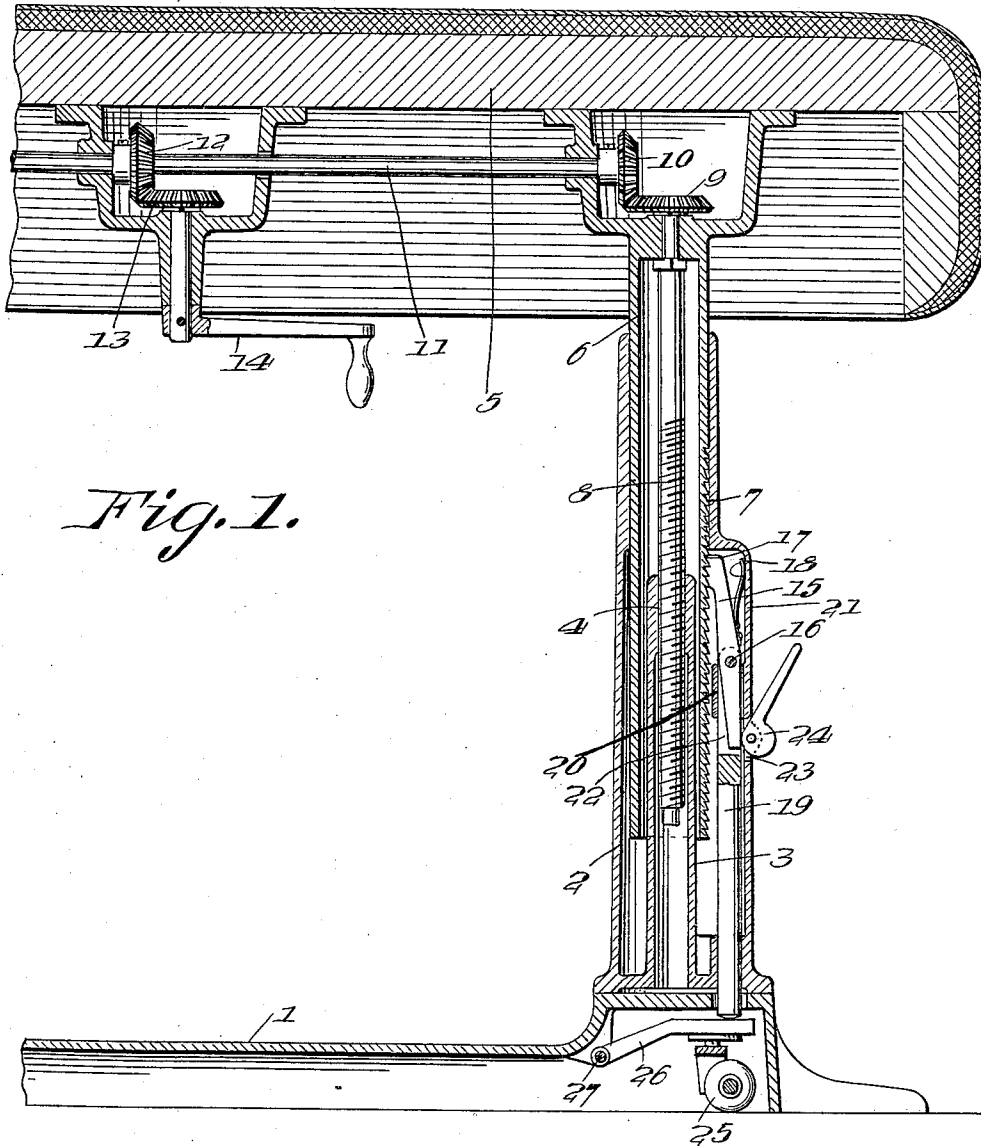


Fig. 1.

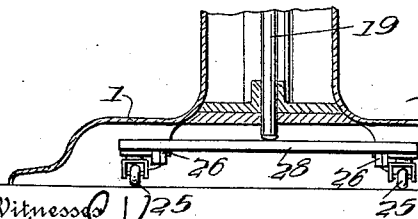


Fig. 2.

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GYMNASIUM APPARATUS.

1,041,701.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT J. THORNLEY, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Gymnasium Apparatus, of which the following is a specification.

This invention pertains to certain new and useful improvements in gymnasium apparatus, and relates more particularly to a vaulting horse buck or similar movable device.

The primary object of the invention is to provide means whereby the casters may be brought into action to permit the apparatus to be moved from one place to another in the gymnasium.

In the drawings: Figure 1 is a vertical sectional view of one end portion of a vaulting horse buck, and Fig. 2 is a fragmentary sectional view of a modification.

The base 1 is hollow, as shown in the drawing and has a vertical column 2 secured thereto, it being understood that there is a column 2 at each end of the device. The column 2 has a hollow interior and is formed with an inner spaced concentric sleeve 3 that has its base end connected to the column 2 and has its upper end enlarged and formed with a threaded bore 4. The top 5 of the device is formed with a depending hollow stem 6 that is rigidly secured thereto and whose lower end slides in engagement with the column 2 in the space between the column 2 and sleeve 3. A series of ratchet teeth constituting a rack 7 is formed on one side of the stem 6. An exteriorly threaded rod 8 is rotatably carried by and extends on the interior of the stem 6, the rod 8 having its lower end engaging in the threaded bore 4 of the sleeve 3. A beveled gear 9 is rigidly carried on the upper end of rod 8 and meshes with a similar beveled gear 10 carried by one end of a horizontal shaft 11 that is rotatably carried by the under side of the top 5. Shaft 11 has a beveled gear 12 thereon which meshes with a similar gear 13 mounted on a crank 14. A latch 15 is pivoted intermediate its ends on the pin 16 that is carried by a vertical sliding bar 19, the latch 15 having its upper end formed with a series of teeth 17 that engage the rack teeth 7 of stem 6. A spring 18 normally holds the toothed end of the latch in en-

gagement with the rack 7. The bar 19 slides in a guide 20 provided therefor in a projecting part 21 of the column 2 and its upper end is bifurcated as at 22 to receive the lower end of the latch 15. The projecting part 21 of the column 2 is formed with a slot 23 in which is pivoted a cam lever 24, so that the cam can project through the slot 23 and engage the tail end of latch 15. The caster 25 is carried by a shoe 26 the inner end of which is pivoted as at 27 to the base 1.

In Fig. 2 of the drawings each of the shoes 26 is secured to a connecting web or bar 28 that extends across the base of the machine to connect the two shoes, so that the two casters on each of the ends can be operated in unison.

In operation by rotation of the crank 14 the shaft 11 and the rod 8 are rotated to thereby raise the top 5 to the desired height. If it is desired to move the apparatus to some other part of the gymnasium, the crank 14 is given a reverse movement and the ratchet latch 15 being in engagement with the rack 7 on the stem 6 causes the latch and therewith the bar 19 to move downwardly against the shoe 26, thereby causing the apparatus to be lifted clear of the floor in an obvious manner. If it is simply desired to lower the body of the apparatus, the cam lever 24 is swung downwardly against the tail end of the latch 15 to cause the toothed end of the teeth 17 to become disengaged from the rack 7.

Having thus described my invention, I claim as new and desire to secure by Letters Patent;—

1. In a device of the type set forth, a base, a column thereon, a sleeve in the column having a threaded bore, a top member, a hollow stem secured to the top member and engaging in the space between the sleeve and column, a threaded rod in the stem engaging said threaded bore of the sleeve, means to rotate said rod, a rack on the stem, a vertically moving bar carried by the column, said bar having a bifurcated upper end, a latch pivoted in said bifurcation and having a toothed upper end to engage said rack, a spring between the column and latch to normally hold the latter in engagement with the rack, said column having a slot which registers with the tail end of the latch, a cam lever pivoted in the slot to engage said tail end of the latch to move the

upper end thereof out of engagement with the rack, and a shoe pivoted to the base and carrying a caster at its free end, said shoe being engaged by the lower end of said bar.

5 2. In combination with a base member and a top member and an adjustable connection between said members, a rack carried by the top member, a pivoted shoe having a caster
10 carried by the base member, means slidably carried by the base member for engagement with the rack and shoe, means for lowering the top member to cause said shoe engaging
15 means to effect raising of the base member, and means to disengage the rack engaging means from the rack to permit the top member to be lowered without raising of the base member.

3. In combination with a base and a top member and an adjustable connection between
20 said base and top member, means to lower the top member, a caster carried by the base member, and means actuated by and capable of being locked to and unlocked from the top member to engage the caster
25 and effect raising of the base member when the top member is locked to said second named means and lowered.

4. In combination with a base and a top member and an adjustable connection between
30 said base and top member, means to lower the top member, a caster carried by the base member, means engaging the caster to effect raising of the base member, and

means to lock the caster engaging means to the top member so that when the latter is
35 lowered the caster engaging means will bear on the caster and thereby effect raising of the base member.

5. In combination with a base member and a top member, means to adjust the two
40 members in a vertical direction, movable floor engaging means carried by the base member, means carried by the base member and engaging said floor engaging means to effect raising of the base member, means to
45 lock the means of the base member which engages the floor engaging means to the top member, and means to permit unlocking of said means of the base member which
50 engages the floor engaging means.

6. In combination with a base member and a top member, a pivoted caster carried by the base member, means to raise and lower the top member with respect to the base
55 member, slidable means carried by the base member and resting on the caster, and means to lock and unlock the slidable means with respect to the top member.

In testimony whereof I have signed my name to this specification in the presence of
60 two subscribing witnesses.

ALBERT J. THORNLEY.

Witnesses:

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J. A. MILLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."