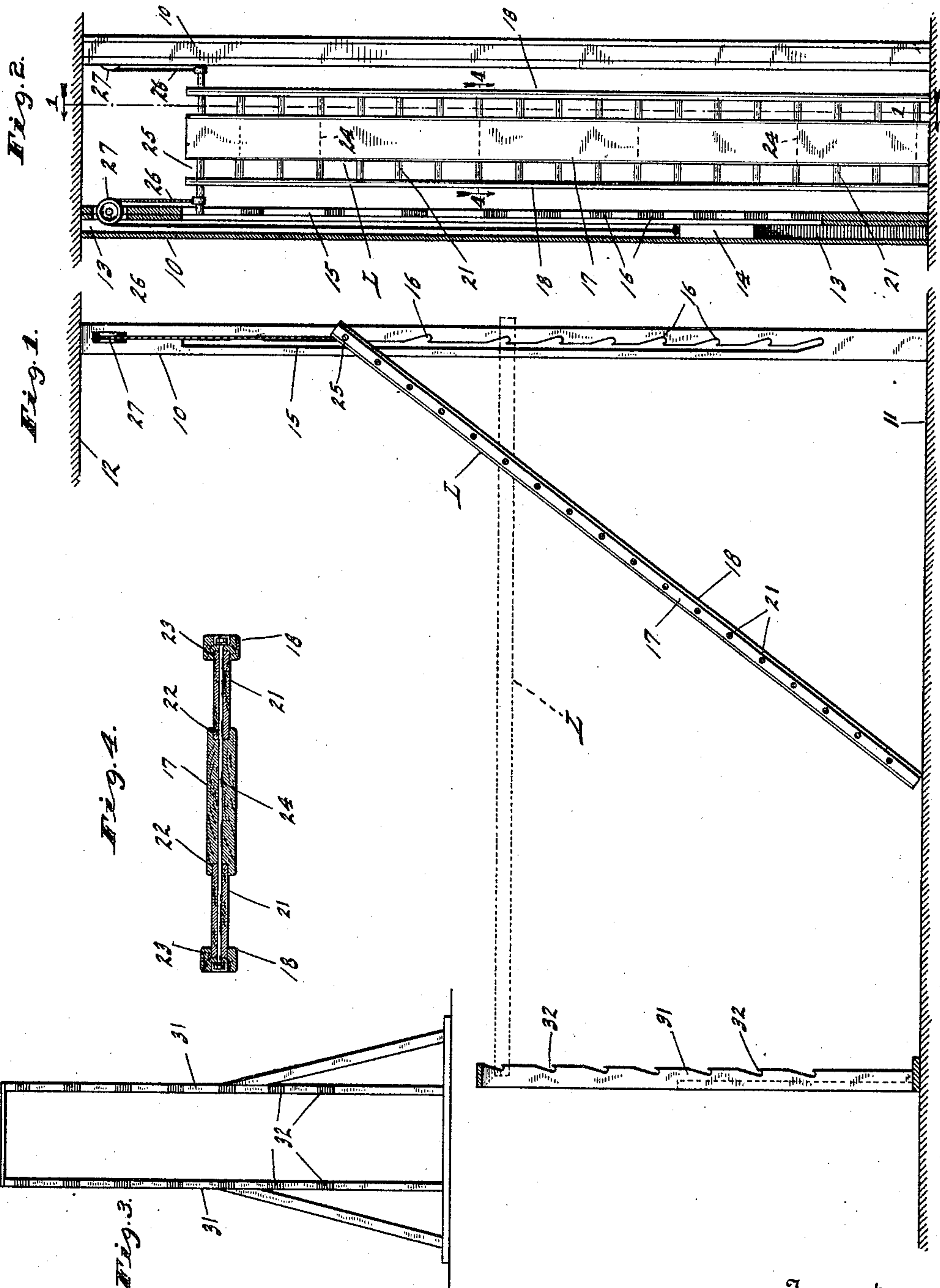


E. RATH.
GYMNASIUM APPARATUS.
APPLICATION FILED DEC. 12, 1910.

998,634.

Patented July 25, 1911.



Witnesses
Frank A. Lohle
Thomas W. McMeaul

Inventor
Emil Rath,
By *Bradford Hood*
Attorneys.

UNITED STATES PATENT OFFICE.

EMIL RATH, OF INDIANAPOLIS, INDIANA.

GYMNASIUM APPARATUS.

998,634.

Specification of Letters Patent. Patented July 25, 1911.

Application filed December 12, 1910. Serial No. 596,808.

To all whom it may concern:

Be it known that I, EMIL RATH, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Gymnasium Apparatus, of which the following is a specification.

The object of my invention is to produce an efficient apparatus for use in gymnasiums by means of which storm board, bench, stall-bar, and ladder exercises, both those which have heretofore been common and also many new ones, may be practiced.

The accompanying drawings illustrate an embodiment of my invention.

Figure 1 is a vertical section of the apparatus on line 1—1 of Fig. 2; Fig. 2 an elevation of the peculiar ladder and its main support, in partial vertical section; Fig. 3 an elevation of the secondary standard or support, and Fig. 4 a section on an enlarged scale on line 4—4 of Fig. 2.

In the drawings, 10, 10 indicate a pair of vertical parallel standards or posts secured in any suitable rigid manner, conveniently extending from the floor 11 to the ceiling 12. Each of these posts is preferably provided with a vertical passage 13 in which a counter-weight 14 is mounted. Each of the posts 10, in its inner face, is provided with a vertical run-way 15 one edge of which is provided with a plurality of notches 16, the purpose of which will appear.

The primary feature of my improved apparatus is a ladder-like structure L consisting of a central board or plank 17, a pair of parallel beams 18, 18 arranged at the opposite edges of the plank 17 and spaced therefrom an amount to admit the feet and legs of the user. Extending between the beams 18 and plank 17 are rungs 21, said rungs being spaced apart an amount at least sufficient to admit a foot and leg of a user.

The exact relative arrangement of the rungs, plank and beams may be varied considerably without departing from my invention although, for convenience in manufacture and comfort in use, I prefer the construction illustrated most clearly in Fig. 4, where, it will be seen, the plank 17 is provided in each side edge with a plurality of shallow pockets 22 and each beam 18 is correspondingly provided upon its inner face with a plurality of pockets 23, the rungs 21 having their ends seated in said pockets 22 and 23 and the whole being clamped

together by a clamping rod 24 extending through the beams, rungs and plank. It will be readily understood that it is not necessary to carry clamping bar 24 through each line of rungs but a proper distribution of these clamping rods may be provided to make a sufficiently substantial structure. The ladder-like structure thus produced is provided at its upper end with a cross bar 25, the opposite ends of which are projected into the two run-ways 15 and are adapted to seat in the notches 16. The ladder-like structure is of such length that its lower end may rest upon the floor.

For convenience in handling the apparatus, a cable 26 is attached to each end of the cross bar 25 and from thence carried up over a pulley 27 and down to one of the counter-weights 14.

In order to support the ladder L in horizontal position at different heights from the floor, I provide a supplemental standard consisting of a pair of upright bars 31 each notched upon one face with a series of notches 32 corresponding in number and vertical arrangement with the lower ones of notches 16.

The apparatus described is useful in facilitating exercises of various kinds, among which are the following: 1. The ladder L may be first adjusted to any desired angle as indicated in full lines in Fig. 1, the lower end resting upon the floor and the upper end firmly held in place by the seating of the cross bar 25 in the proper pair of notches 16. The user may then run up the apparatus, his feet resting upon the board 17, and the hands, when necessary, grasping either the beams 18 or the rungs 21. By providing the center board 17, a sufficiently broad and firm support is provided for the feet in a natural position. By varying the angle of inclination of the ladder L, the difficulty of the exercise may be increased or diminished. 2. The user may straddle the structure with the legs depending outside the bars 18 and then flex the body about the hips. In this exercise, the board 17 forms a comfortable seat which cannot be obtained upon an ordinary ladder. 3. The feet and legs of the user may be passed through the spaces between the rungs and the body may be then swung head down so as to rest the back upon the board 17, the weight being supported at the knees. In this position the board 17 forms a complete and smooth

support for the back. The difficulty of the exercise may be increased by increasing the vertical angle of the ladder L. If an exercise of this kind were attempted upon an ordinary ladder, the back is hurt by the rungs of the ladder and actual practice has proven that with my apparatus the body may be lifted from a much steeper angle than is possible with the use of an ordinary ladder.

4. With the ladder inclined, the user backs against board 17 and suspends his weight by his hands placed above the head, grasping the proper pair of rungs, and then raising the legs. 5. By placing the ladder horizontally, as indicated in dotted lines in Fig. 1, the usual bench exercises may be practiced. Many others will readily suggest themselves.

I claim as my invention:

1. In a gymnasium apparatus, the combination with a ladder-like structure comprising a central running board, beams spaced therefrom, and rungs crossing the spaces between the running board and beams, of a support to support the same in an inclined position.

2. As a gymnasium apparatus, a ladder-like structure comprising a central running board, a pair of beams at opposite edges of the running board and spaced therefrom, and rungs extending across the spaces between the running board and beams.

3. As a gymnasium apparatus, a central running board having pockets formed in its opposite edges, a pair of beams each having pockets formed in its inner edge and registering with the pockets in the adjacent edge of the running board, and rungs having their opposite ends seated in a pocket of the running board and a pocket of a beam to space the side bars from the running board.

4. In a gymnasium apparatus, the combination of a pair of spaced vertical supports each having a vertical run way formed in its inner face and provided with a plurality of notches formed in the length thereof, a ladder provided at its upper end with a cross bar extending between the supports and adapted to lie in any one of the notches of the run way thereof, the said ladder being of such length that its lower end may rest upon the floor at different distances from the foot of the supports, and said ladder comprising a central running board, beams arranged one upon each side of said running board and spaced therefrom, and rungs crossing the spaces between the running board and said bars.

5. In a gymnasium apparatus, the combination of a pair of spaced vertical supports each having a vertical run way formed in its inner face and provided with a plurality of notches formed in the length

thereof, and a ladder provided at its upper end with a cross bar extending between the supports and adapted to lie in any one of the notches of the run way thereof, the said ladder being of such length that its lower end may rest upon the floor at different distances from the foot of the supports.

6. In a gymnasium apparatus, the combination of a pair of spaced vertical supports each having a vertical run way formed in its inner face and provided with a plurality of notches formed in the length thereof, a ladder provided at its upper end with a cross bar extending between the supports and adapted to lie in any one of the notches of the run way thereof, the said ladder being of such length that its lower end may rest upon the floor at different distances from the foot of the supports, said ladder comprising a central running board, beams arranged one upon each side of said running board and spaced therefrom, rungs crossing the spaces between the running board and said bars, and a secondary vertical support spaced from the first mentioned supports a distance substantially equal to the ladder length and provided with means for supporting one end of the ladder.

7. In a gymnasium apparatus, the combination of a pair of spaced vertical supports each having a vertical run way formed in its inner face and provided with a plurality of notches formed in the length thereof, a ladder provided at its upper end with a cross bar extending between the supports and adapted to lie in any one of the notches of the run way thereof, the said ladder being of such length that its lower end may rest upon the floor at different distances from the foot of the supports, and a secondary vertical support spaced from the first mentioned supports a distance substantially equal to the ladder length and provided with means for supporting one end of the ladder.

8. A gymnasium apparatus comprising a running board, a plurality of laterally extending rungs projecting from the opposite edges of said running board, and means for supporting said running board at various vertical angles.

9. A gymnasium apparatus comprising a running board, and a plurality of laterally extending rungs projecting from the opposite edges of said running board.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this seventh day of December, A. D. one thousand nine hundred and ten.

EMIL RATH. [L. S.]

Witnesses:

ARTHUR M. HOOD,
THOMAS W. McMEANS.