T. VOLK.

MECHANICAL TRAINING MACHINE.

APPLICATION FILED SEPT. 9, 1908.

921,755. **Patented May 18, 1909.**

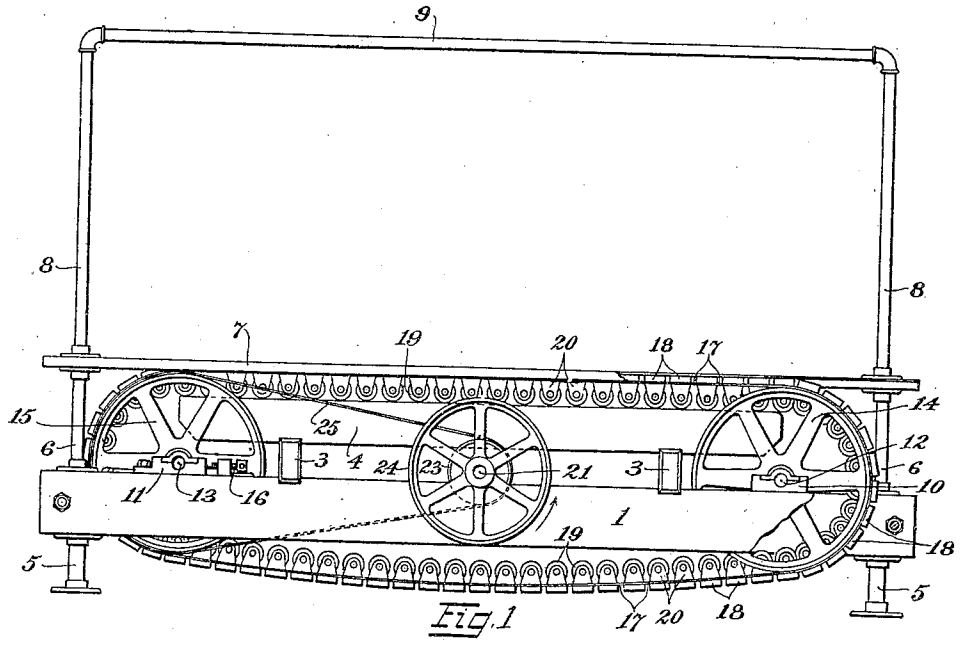


Fig. 1

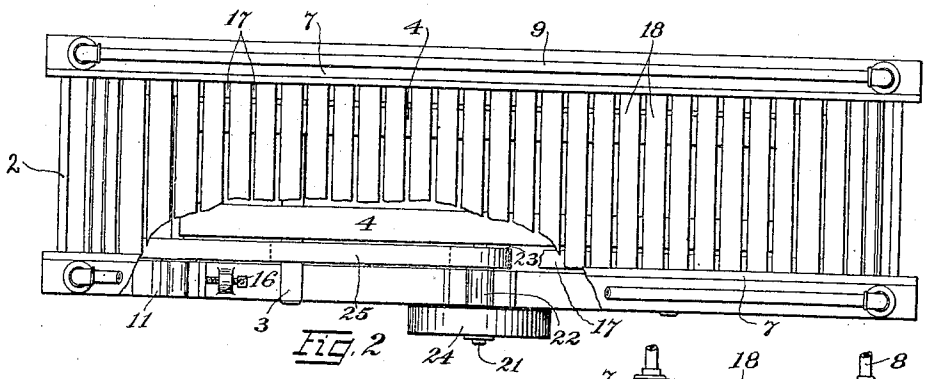


Fig. 2

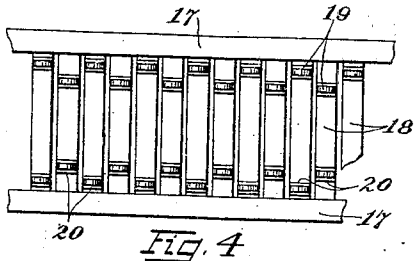


Fig. 4

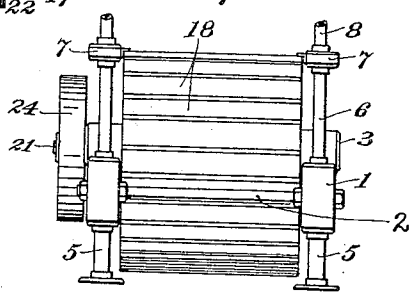


Fig. 3

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MECHANICAL TRAINING-MACHINE.

No. 921,755. Specification of Letters Patent. Patented May 18, 1909.

Application filed September 9, 1908. Serial No. 452,233.

To all whom it may concern:

Be it known that I, THOMAS VOLK, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Mechanical Training-Machines, of which the following is a specification.

My invention relates to improvements in mechanical training machines, the invention being specially designed for use in training schools, gymnasiums, and similar places, for the exercising and training of men in walking, running, etc.

The primary object of my invention is to provide a generally improved machine of this class which will be exceedingly simple in construction, cheap of manufacture, and efficient in use.

The machine is adapted to be operated by any convenient motor, and is preferably provided with cyclometer and speedometer attachments whereby the distance traveled and time consumed in such travel may be readily ascertained, and in this connection, suitable means may be provided for regulating the speed with which a person must travel on the moving track way in order to remain at a certain location relative to the fixed frame of the machine.

Another object of the invention is to provide means for supporting and coöperating with the upper or track forming member of the endless track-web whereby said upper or track forming member is maintained in a horizontal plane and provides a uniform treading-surface.

With the above mentioned and other ends in view, the invention consists in the novel construction, combination, and arrangement of parts illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings forming a part of this specification, Figure 1, is a side elevation of the machine constructed in accordance with my invention, a portion of its frame being broken away for the purpose of clearer illustration. Fig. 2, a top plan view of the same, a portion of the moving track way being broken away for the same purpose. Fig. 3, a rear end view of the improved machine. Fig. 4, a view of a portion of the under side of the improved endless track-web.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved machine comprises a frame consisting of side beams 1, connected at their ends by means of cross bars 2, and carrying intermediate cross beams 3, said cross beams 3, supporting a pair of longitudinally-extending supporting beams 4, forming track-web-supporting friction-ways for supporting the upper or track forming member of the improved endless track-web hereinafter described. The side beams 1, are supported by and mounted upon standards or legs 5, and are provided immediately above said standards 5, with a second set of standards 6. The standards 6, are secured at their upper ends to the ends of a pair of longitudinally-extending side or track-way guide-boards 7, adapted to coöperate with the upper or track forming member of the endless track-web as hereinafter described. The ends of the track-way guide-boards 7, are provided with standards or uprights 8, carrying at their upper ends a pair of side bars or guide rails 9. The side beams 1, are provided with a pair of stationary bearing blocks 10, near one end and a pair of movable bearing blocks 11, near the other end, said bearing blocks carrying the ends of cross axle-shafts 12 and 13, respectively. The axle-shafts 12 and 13, are each provided with a pair of pulley-wheels 14 and 15, disposed within the side beams 1, and on the outer sides of the track-web-supporting friction-ways 4. The movable bearing blocks 11, are slidably mounted on the side beams 1, and are adapted to be adjusted by means of a pair of adjusting bolts 16.

The endless track-web comprises a pair of endless drive members, in the present instance, in the form of endless belts 17, mounted upon and carried by the pulley wheels 14, and 15. If desired, the endless drive member 17, may be formed of chains of any suitable and convenient form. The endless drive members 17, carry a plurality or series of cross slats or bars 18, said cross slats having their ends secured to the outer sides of said drive members. A series of anti-friction rollers 19, are mounted on the

under sides of said cross slats by means of bearing lugs 20, said anti-friction rollers being staggered or arranged alternately in rows on the under sides of said cross slats and along the inner marginal edges of said endless drive members, as shown most clearly in Fig. 4, of the drawings. This arrangement of the anti-friction rollers prevents them from coming in contact with each other during the passage of the endless track-web over the pulley wheels 14, and 15, as indicated in Fig. 1, of the drawings. The two rows of rollers are adapted to travel upon the track-web supporting friction ways 4, during the upper or track form revolution of the endless track-web, thus forming a uniform treading surface for the track-way and distributing the weight of the exerciser. The rollers 19, are held in contact with the friction ways 4, and the cross slats 18, are maintained in a substantially uniform plane by means of the track-way guide-boards 7, the inner marginal edges of which take over the ends of said cross-slats 18.

The machine may be operated by any suitable and convenient driving mechanism, said driving mechanism, in the present instance, comprising a driving shaft 21, mounted in a bearing block 22, on one of the side beams 1. The driving shaft 21, is provided with pulleys 23 and 24, the inner or smaller pulley 23, being provided with a belting 25, in the present instance, passing over one of the pulley wheels 15. The outer or larger pulley 24, may be provided with a belting communicating with any suitable and convenient source of power.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is—

1. In a mechanical training machine, an endless track-web comprising a pair of endless drive members, a series of cross-slats having their ends secured to the outer sides of said endless drive members, and a series of staggered anti-friction rollers secured to the under sides of said cross-slats and within said pair of endless drive members.

2. In a mechanical training machine, an endless track-web comprising a pair of endless drive-members, a series of cross-slats having their ends secured to the outer sides of said endless drive-members, and a series of anti-friction rollers secured to and arranged alternately in rows on the under sides of said cross-slats and along the inner marginal edges of said endless drive members.

3. A mechanical training machine, comprising a frame provided with a pair of axle-shafts each carrying a pair of pulley-wheels, a pair of web-supporting beams mounted intermediate the pulley-wheels of each pair and extending between said shafts, an endless track-web mounted on said pulley-wheels and provided on its under side with a plurality of staggered anti-friction rollers traveling on said web-supporting beams, and track-way guide-boards taking over the marginal edges of the upper or track forming member of said endless track-web whereby said anti-friction rollers are held down in contact with said web-supporting beams.

In testimony whereof I have affixed my signature, in presence of two witnesses.

THOMAS VOLK.

Witnesses:
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SAM BILLMAN.