

P. GRAHAM.
GYMNASTIC APPARATUS.

No. 181,836.

Patented Sept. 5, 1876.

Fig. 1.

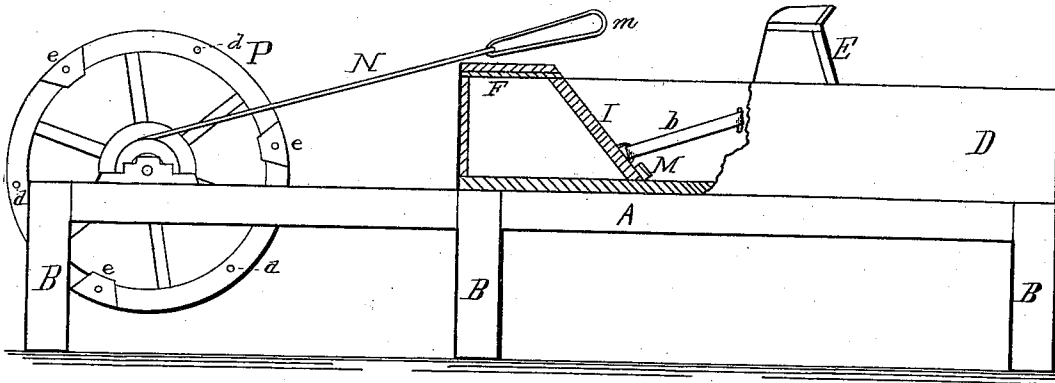


Fig. 2.

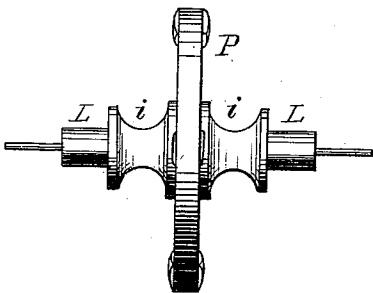
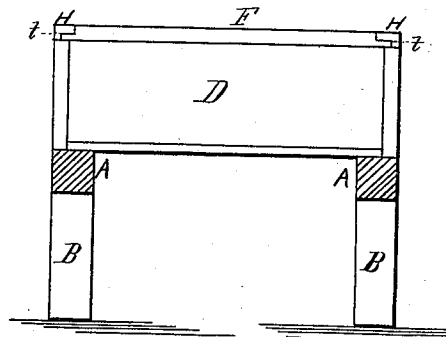


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE,

PETER GRAHAM, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN GYMNASTIC APPARATUS.

Specification forming part of Letters Patent No. **181,836**, dated September 5, 1876; application filed April 19, 1876.

To all whom it may concern:

Be it known that I, PETER GRAHAM, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Gymnastic Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to an improved gymnastic apparatus; and consists in the devices hereinafter specifically described, the object being to afford a means of obtaining healthful exercise.

Figure 1 is a side elevation of a device embodying the elements of the invention. Fig. 2 is a view of the wheel. Fig. 3 is a front view of the body.

In the accompanying drawings, A represents a pair of bars, properly spaced and sustained at suitable intervals by the legs or standards B. At the rear end of the bars A is secured the box or body D, containing the seat E, and having below, and in front thereof, an elastic foot-rest, which consists of the tongued brace-board F, operating horizontally and parallel with the bars A in the guide-slots *t* in the cleats H, and of the inclined foot-rest I, secured to its rear edge. This foot-rest is provided with the sill M, and depends downward and rearward, having secured directly to it one end of the strips *b*, the other being secured at a suitable point nearer the rear end of the body, the object being to give elasticity to the foot-rest, which by these means is held in contact with the feet, allowing the limbs to be extended when the cords are wound up, as hereinafter described, and also pressing the limbs back to their initial position when the tension of the cords is relaxed, thus communicating a healthful movement to the lower portion of the body.

The box D may be dispensed with, if desired, a seat, suitably raised, being employed, and the brace-board mounted in properly-constructed standards.

Near the opposite or front end of the bars A the wheel P is mounted in bearings, and has constructed on its axles L the spools *i*, about which is secured the cord N, having on its end an elastic medium, such as a coiled spring or a strand of india-rubber, which is lettered *m*, and may be connected with a handle, bar, or other suitable means of exerting tension. At regular intervals in the outer

rim or periphery of the wheel are provided the apertures *d*, by means of which the weights *e* are removably attached to the wheel by riveting, bolting, or otherwise, to give additional weight, and thereby increase the power to suit the wish or strength of the operator.

Operation: The operator seats himself, placing his feet against the foot-rest, and taking hold of the handle draws the cord. This gives the wheel a slight rotary movement as the cord is drawn off, and, the wheel revolving, the cord is wound up in the opposite direction, the momentum of the wheel extending the arms of the operator, and the brace-board being pushed forward when the cord is being drawn from the spools, the legs are likewise extended. A second movement of the hands toward the body reverses the motion of the wheel, and at the same time gives it more momentum.

It is obvious that the body is well exercised, since every successive movement of the cord will produce a corresponding extension of the arms and legs; and it is further obvious that unless the elastic medium was employed, the operator would be forced to loosen his grasp or be dragged from the seat, but by means of the elastic material the tension is gradually exerted and overcome.

I claim—

1. In a gymnastic apparatus, the wheel P, provided with removable weights, arranged to be secured upon or adjacent to its periphery, substantially as expressed.

2. In a gymnastic apparatus, the foot-rest I, arranged to slide in the cleats H, and provided with the elastic strips *b*, substantially as described.

3. In a gymnastic apparatus, the combination of the seat E, foot-rest I, wheel P, and cords N, substantially as specified.

4. In a gymnastic apparatus, the wheel P, mounted upon an axle provided with spools or receptacles to receive the cords N, as set forth.

In testimony that I claim the foregoing improvement in gymnastic apparatus as above described, I have hereunto set my hand this 17th day of April, 1876.

PETER GRAHAM.

Witnesses:

C. GURNEY POULTON,
J. B. ENGLISH.