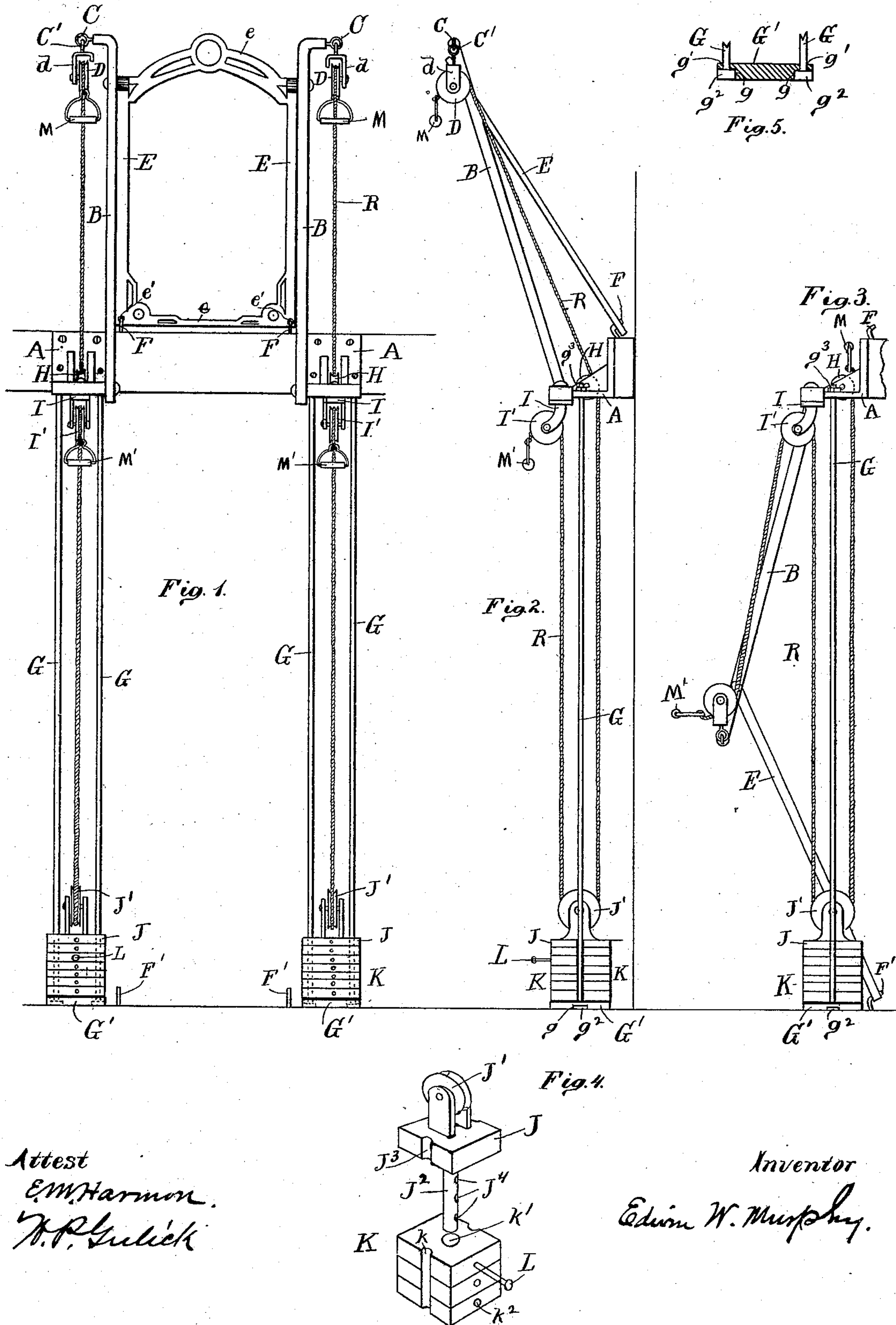


(No Model.)

E. W. MURPHY. EXERCISING MACHINE.

No. 372,272.

Patented Oct. 25, 1887.



Attest
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EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 372,272, dated October 25, 1887.

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To all whom it may concern:

Be it known that I, EDWIN W. MURPHY, a resident of Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Gymnastic Apparatus, of which the following is a specification.

The several features of my invention and the advantages arising from their use, conjointly or otherwise, will be apparent from the following description.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of my improved device adjusted for overhead and straight exercise. Fig. 2 is a side elevation of the device in the position shown in Fig. 1. Fig. 3 is a side elevation of the device as adjusted for under-pull exercise. Fig. 4 is a perspective view of the weight-carrier and weight-pile. Fig. 5 is a sectional view of the plate holding the guide-rods.

Two brackets, A, are securely attached to a wall or to a suitable frame-work at an elevation above the floor about equal to the height of a man's shoulders. To the inside of each bracket A an arm, B, is journaled. Into the upper end of each arm B a ring-bolt, C, is screwed, which links with the ring-bolt C', projecting from the frame d of the sheave D. Two arms, E, preferably connected by cross-pieces e, so as to form a frame-work to insure the two arms working together, are journaled to the upper parts of the arms B B. The arms E are provided at their lower ends with openings e', to catch over the hooks F or F'. The hooks F are attached to the brackets or wall behind the journals of the arms B. The hooks F' are attached to the floor. The guiding-rods G extend from the brackets to the floor. There are two rods under each bracket, so placed as to guide the weights in their vertical movements.

The preferred means of securing the rods in position is that shown in the drawings. Each pair of rods is held to the floor by a plate, G'. The plate G' has two angular sockets, g, in its under surface, into which the openings g' enter. Each rod G is provided with an angular head, g², which fits more or less closely in the socket g, the rod itself passing through the openings g'. The upper end of each rod is screw-threaded, passing through the bracket A, and is secured in place by a nut, g³. When

the plate G' is securely attached to the floor, the nut g³ may be tightened up and will hold the rods G perfectly rigid. The pulleys H are journaled in the brackets A back of the line of axis of the arms B. Each bracket A has swiveled to its under surface, in front, the bracket I, which carries the pulley I'. The weight-carrier consists of a plate, J, having on its upper surface a pulley, J', supported in suitable standards and provided with the rod J², projecting downward from its under surface. The plate J has the notches J³ in its edge, into which the guide-rods G fit. The weights K lie in a pile over each other between the guide-rods G, the notches k of the weights engaging with the rods G. Each weight is provided with a central opening, k', through which the rod J² passes. Each weight is also provided with an opening, k², through which the pin L may be passed. Opposite each of the openings k² in the weights is an opening or notch, J⁴, in the rod J², and when the pin L has passed through the opening k² of any weight it engages with the corresponding notch, J⁴, in the rod J², so that when the plate J is lifted the weight through which the pin L is passed and all weights over it are lifted. All the pulleys on each side of the machine are preferably placed in the same vertical plane. Only one rope, R, is employed on each side of the machine, and that rope is provided with a handle, M and M', at each end.

By reference to Figs. 1 and 2 the course of the rope will be seen to be as follows: It is first passed over the pulley I', from which it is prevented from escaping by the handle M'. It then passes down under the pulley J', then up and behind the pulley H, thence upward and forward over the pulley D, where it terminates in the handle M.

The mode of operation is as follows: With the device in the position shown in Figs. 1 and 2, either the handles M or the handles M' may be used. When traction is made on either set of handles, the weights are lifted, because the other ends of the ropes are fixed by the jamming of the other set of handles at their pulleys. With the apparatus in the position shown in Figs. 1 and 2, overhead exercise may be employed by using the handles M and straight-out exercise by using the handles M', which are located at about the height of a man's

shoulders. For under-pull exercise the arms E are unhooked from the hooks F and the arms turned down so as to hook the arms E to the hooks F' on the floor. The rope is detached from the pulley D and handle M allowed to drop to the bracket A behind the pulley H. The handle M' is pulled down and the rope caught under the pulley D. The apparatus now occupies the position shown in Fig. 3, and the handles M' may be used for under-pull exercise.

A great advantage of the device lies in its simplicity and in the readiness with which it may be put in the desired positions. Much of the simplicity of the device is due to the use of a rope with a handle at each end.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a gymnastic apparatus, the combination of the bracket A, arm B, journaled to the bracket A, arm E, journaled to arm B, pulley D, attached to arm B, and pulley H, journaled in bracket A, substantially as described.

2. In a gymnastic apparatus, the combination of the bracket A, arm B, journaled to bracket A, arm E, journaled to arm B, pulley D, attached to arm B, pulley H, and pulley I', supported in bracket I, the latter supported by the bracket A, substantially as set forth.

3. In a gymnastic apparatus, the combina-

tion of the bracket A, arm B, journaled to bracket A, arm E, journaled to arm B, pulley D, attached to arm B, pulley H and pulley I', supported in bracket I, the latter supported by bracket A, weight-lifter J, provided with pulley J', and rope R, having handles M and M', substantially as set forth.

4. In a gymnastic apparatus, the combination of overhead and breast pulleys, and weight-lifter, and a single rope passing over the said pulleys and around the pulley of the weight-lifter and provided at each end with a handle, substantially as and for the purposes specified.

5. In a gymnastic apparatus, the combination of breast-pulley, and adjustable overhead and under-pull pulley, and a weight-lifter, and a single rope passing around the said pulleys and around the pulley of the weight-lifter and provided at each end with a handle, substantially as and for the purposes specified.

6. In a gymnastic apparatus, the combination of the bracket A, foot-plate provided with angular socket and opening, and rods provided with head and nut g^3 , substantially as set forth.

EDWIN W. MURPHY.

Witnesses:

O. M. HILL,

W. P. GULICK.