

(No Model.)

C. C. NEILY.
GYMNASTIC APPARATUS.

No. 481,807.

Patented Aug. 30, 1892.

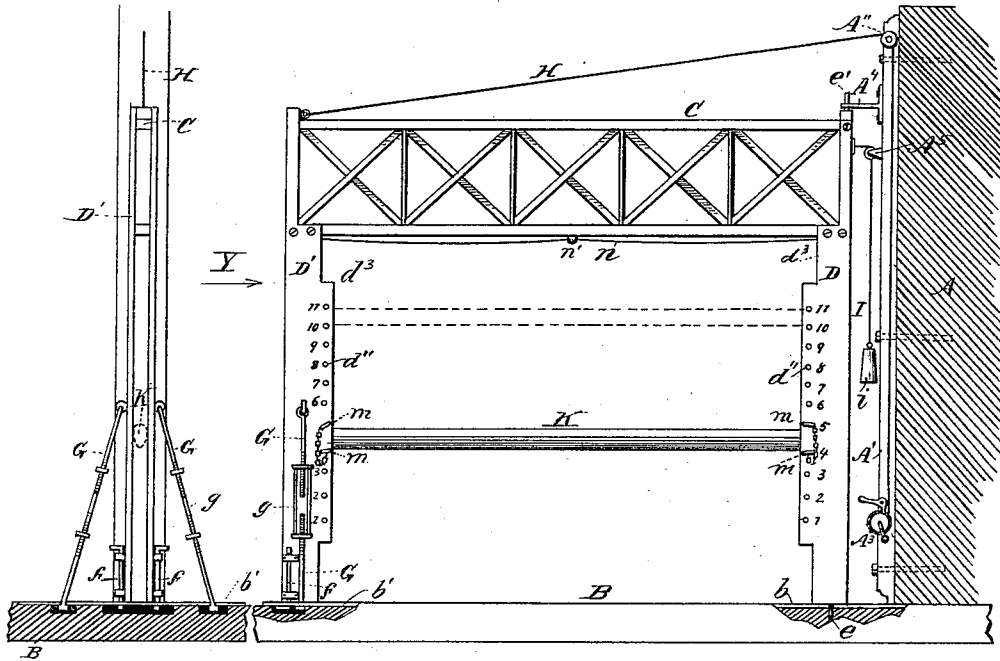


Fig. 2.

Fig. 1.

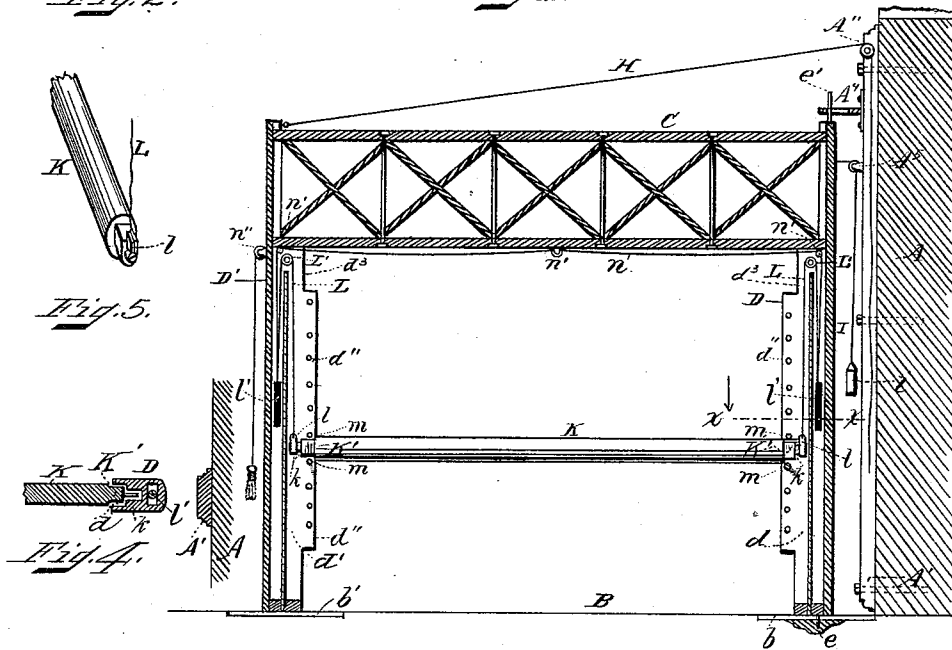


Fig. 5.

Fig. 4.

Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES C. NEILY, OF BOSTON, MASSACHUSETTS.

GYMNASTIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 481,807, dated August 30, 1892.

Application filed August 30, 1890. Serial No. 363,575. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. NEILY, a citizen of Canada, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Gymnastic Apparatus, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in gymnastic apparatus; and it is particularly designed for use in halls where an unobstructed floor-space is needed when the gymnastic apparatus is not in use.

The object of my invention is to provide novel means whereby the framework of the gymnastic apparatus may be adjusted against the wall of the gymnasium to leave the floor unobstructed.

To accomplish this object my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 represents a side elevation of the apparatus shown in position for use. Fig. 2 represents an end view thereof as seen from Y in Fig. 1. Fig. 3 represents a longitudinal section of the apparatus. Fig. 4 represents a cross-section on the line X X, shown in Fig. 3; and Fig. 5 represents a detail perspective view of a portion of the adjustable bar.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A in Figs. 1, 3, and 4 represents the wall of the room in which the apparatus is arranged, and to the inside of said wall I prefer to secure a vertical board, beam, or post A', as shown in said figures.

B represents the floor of the room, as usual. The framework of the apparatus consists of a horizontal beam or girder C, to which are secured the vertical posts or standards D and D', which are adapted to rest on the floor in the room, as shown in Figs. 1, 2, and 3.

The lower end of the standard D is pivoted in a plate or socket b, secured to the floor B, said standard being for this purpose preferably provided with a pivot-pin e, journaled in the plate or socket b, as shown in Figs. 1 and 3. The outer standard D' is provided

with a suitable locking device for securing it in position while the apparatus is in use, and for this purpose I have shown in Figs. 1 and 2 one or more vertically-adjustable locking-bolts f f, adapted to slide in bearings secured to said standard D' and having their lower ends adapted to enter cavities or locking-recesses in the floor or in a plate secured thereto, as is common in double-door fastenings or similar objects.

For the purpose of securing the standard D' firmly in position on the floor while the apparatus is in use I secure to two opposite sides of said standard a pair of links, guys, or braces G G, having their lower ends adapted to be detachably secured to a plate b', sunk in the floor B, as shown in Figs. 1 and 2, such links or braces being preferably provided with adjustable turnbuckles g g or other suitable tightening devices.

To the outer end of the standard D' or to the outer end of the beam or girder C is secured in a suitable manner the hoisting rope or chain H, which is carried to a sheave or pulley A'', attached to the beam A' or wall A at a suitable place above the highest point of the beam or girder C, as shown in Figs. 1, 2, and 3, and from said sheave or pulley the rope or chain is carried, preferably, to a windlass or hoisting device A³ for the purpose of raising the foot of the standard D' above the floor sufficiently to allow the beam C and its standards D D' about one-fourth of a revolution on the pivot e. The upper end of the standard D has an upwardly-projecting pivot-pin e', loosely journaled in a slotted bearing or bracket A⁴, secured to the board or pillar A' or to the wall A, as may be found most practical, in such manner that this standard D can oscillate or rock to and from the wall A, as well as axially rotate.

For the purpose of aiding in raising the standard D' above the floor on which it rests I prefer to attach to the upper end of the standard D a rope or chain I, which is carried over a sheave or pulley A⁵, attached to the board or post A' or to the wall A, and provided with a balance-weight i, as shown in Figs. 1 and 3.

When the apparatus is in use, the frame C D D' is swung at a right angle to the wall, as shown in Figs. 1, 2, 3, and 4, and the stand-

ard D' is secured to the floor in such outward position by means of the fastening-bolts *ff* and adjustable guys or stays *G g G g* or equivalent or suitable devices. When the apparatus is not needed for use, it may be swung out of the way close up to the wall of the room simply by unlocking the bolts *ff* and detaching the guys or stays *G g G g*, after which the standard D is rocked or tilted toward the wall A and the beam or girder C, with standard D', is lifted by operating the hoisting rope or cable H until the foot of the standard D' is raised sufficiently above the floor to enable the frame C D D' to be swung freely about one-fourth of a revolution on the fulcrum *e e'*, thus enabling the frame to be swung out of the way and up against the wall, thereby presenting an unobstructed floor-space for the use of other purposes in the gymnasium.

In combination with the uprights D D', I use vertically-adjustable bars, of which one or two may be used with each apparatus. In the drawings I have represented one such bar K, having flattened, square, or rectangular ends K' K', adapted to slide up and down in guides or grooves *dd* on the interior surfaces of the standards D D'. The extreme ends of the said bar K are made cylindrical, as shown at *k k*, and made to rest in bearings *ll*, to which are attached ropes or chains L L, carried over pulleys or sheaves L' L' in the upper ends of the standards D D', and having their lower ends secured to balance-weights *l' l'*, as shown in Fig. 3. In practice I prefer to make the combined weight of the weights *l' l'* a little heavier than the bar K, so as to cause the latter to be automatically raised when released. After the bar K has been adjusted to its desired position it is secured to the standards D D', preferably by means of locking-pins *m m*, going through lateral perforations *d'' d''* in the grooved guides *dd* of the standards D D', as shown in Figs. 1, 2, and 3. The object of hanging the bar K in bearings *ll* is to enable each bar to be reversed in position—that is, turned half a revolution around its axis—according to what purpose said bar is to be used for, as the upper and under surfaces are made varying in form and shape, as is common in bars used for gymnastic purposes. The upper ends of the grooved guides *dd* are cut away in their upper ends, as shown at *d³ d³* in Figs. 1 and 3, to permit the bar K to be raised upward out of said grooved guides to enable it to be turned half a revolution in its bearings, so as to bring a differently-shaped surface of the bar on top, according to the exercise for which the said bar is to be used. After being so turned around its axis the bar is lowered into the grooves *dd* and secured in position at a desired height from the floor by means of the fastening-pins *m m*.

In lowering the bar K it is desirable to relieve the downward pressure of the weights *l' l'*, and for this purpose I attach to such

weights cords or chains *n n*, carried over pulleys or rollers *n' n'* at the upper ends of the standards D D', which ropes or chains are guided around a roller or pulley *n''* on the standard D' and allowed to hang outside of the latter, as shown in Figs. 1 and 3. By this arrangement the bar K may be easily lowered simply by pulling on the rope or chain *n*, causing the weights *l' l'* to be raised and allowing the bar after being liberated to drop by its own weight to the desired place above the floor and secured in such position by means of the fastening-pins *m m*.

If so desired, two bars, one arranged above the other and provided with independent weights and hoisting devices for the latter, may be used in the apparatus without departing from the essence of my invention.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. A gymnastic apparatus consisting of an oscillatory and axially-rotatable standard D, a horizontal beam C, secured to said standard and having at its outer end a standard D', a gymnastic appliance carried by the standards, a cable-supporting pulley A'', journaled above the upper end of the inner standard, and a cable H, secured to the outer end of the horizontal beam, passing over the cable-supporting pulley, and descending to a point in proximity to the floor for the purpose of lifting the horizontal beam, substantially as and for the purposes described.

2. A gymnastic apparatus consisting of an oscillatory and axially-rotatable standard D, a horizontal beam C, secured to said standard and having at its outer end a standard D', a gymnastic appliance carried by the standards, a cable-supporting pulley A'', journaled above the upper end of the inner standard, a cable H, secured to the outer end of the horizontal beam, passing over the cable-supporting pulley, and descending to a point in proximity to the floor for the purpose of lifting the horizontal beam, a pulley A³, and a cable I, secured to the inner standard and provided with a balance-weight *i* to aid in lifting the horizontal beam, substantially as described.

3. A gymnastic apparatus consisting of grooved standards, a vertically-movable rotary bar, adjustable bearings mounted on the standards and to which the ends of the bar are pivoted, weighted cords or ropes connected with the bearings for balancing the latter, and a releasing rope or chain attached to the balance-weights for relieving the downward pressure thereof, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 11th day of August, A. D. 1890.

CHARLES C. NEILY.

Witnesses:

ALBAN ANDRÉN,
ALICE A. PERKINS.