

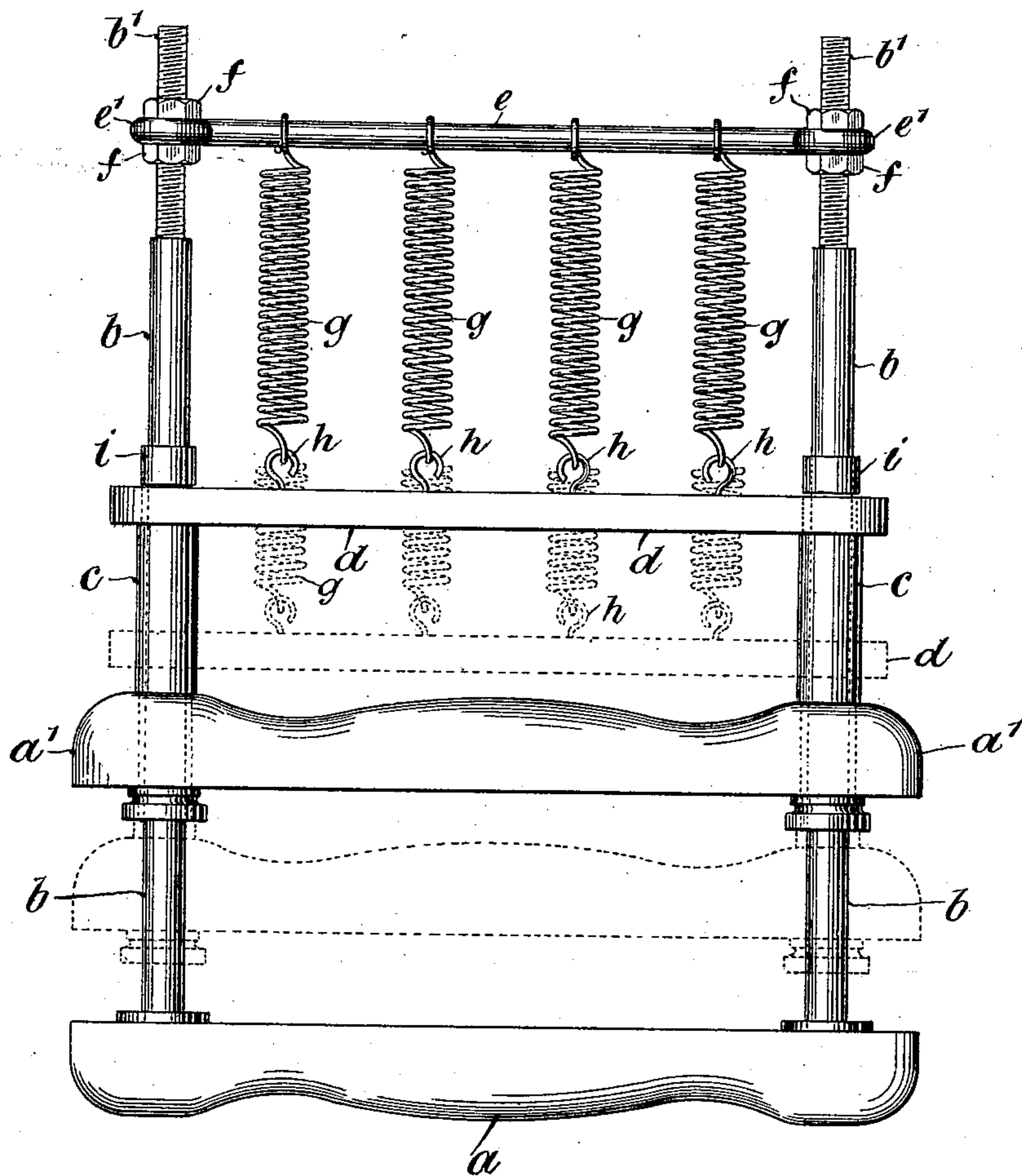
No. 689,652.

Patented Dec. 24, 1901.

E. PERRY.  
EXERCISING DEVICE.

(Application filed June 14, 1901.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

EDMUND PERRY, OF CARDIFF, ENGLAND.

## EXERCISING DEVICE.

SPECIFICATION forming part of Letters Patent No. 689,652, dated December 24, 1901.

Application filed June 14, 1901. Serial No. 64,579. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND PERRY, of 35 Hamilton street, Cardiff, in the county of Glamorgan, England, have invented a certain  
5 new and useful Exercising Device; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.  
10 This invention relates to an improved mechanical arrangement for use in strengthening the muscles of the hand and arm and is of the form of two horizontal strips or hand-grips. One of these strips has a pair of projecting prongs of about five inches in length fixed at each end. The other strip or cross-  
15 bar has a pair of apertures at either end corresponding with the projecting prongs fixed thereon and slides easily to and fro. Another cross-bar placed at a slight distance apart from the sliding one and connected therewith by a pair of tubes is fixed firmly, so that both cross-bars slide together on the prongs. The  
20 space between the two bars is for the purpose of allowing the fingers to pass easily through. To the outer bar a series of hooks are attached. The ends of the before-mentioned prongs are screw-threaded for a certain distance from their ends, and a cross-bar with  
25 looped ends is placed thereon. A pair of nuts is placed upon the prongs at each end to keep this cross-bar in position. The nuts can be placed at any position on the screwed ends, so that the cross-bar can be raised or  
30 lowered to a considerable extent. A series of spiral springs, the ends of which are formed into loops, are passed over the end cross-bar, the remaining ends then being slipped over the before-mentioned hooks on the sliding  
35 cross-bar. These springs pull the movable cross-bar away from the one to which the prongs are attached. Any convenient number of springs may be employed and by means of the mechanical arrangement above de-  
40 scribed can be easily taken out and stronger or weaker ones employed, or any of the springs can be quickly unhooked and one or more left attached to the movable cross-bar. Small  
45 rubber tubes or washers are placed on the prongs to limit the movement of the movable

cross-bar and to act as an elastic buffer when the movable cross-bar is pulled up against them by the springs. By means of this arrangement of parts I am enabled to oppose the resistance of springs in tension till the  
55 muscular exertion of the hand, instead of using springs under compression, and I thereby obtain a greatly improved effect, as the action of springs under tension is much more beneficial to the muscles of the person em-  
60 ploying the hand-grip than is that of springs under compression.

In order that my invention may be the more fully understood, I hereby refer to the accompanying drawing, which I likewise at the same  
65 time make part of this specification.

In the drawing, *a* is the stationary or fixed strip or hand-grip, *a'* being a movable or displaceable grip. Near each end of the grip *a* are rigidly secured, parallel to one another  
70 and at right angles to the upper flattened surface of *a*, the two projecting prongs *b b*, extreme end portions of which, *b' b'*, are screw-threaded. Fixed in and passing through holes in the ends of the movable grip *a'*, and at the  
75 same distance apart as the prongs *b b*, are the tubes or sleeves *c c*, rigidly connected together by the cross-piece *d*, in holes through which cross-piece the extreme ends of the sleeves *c c*  
80 are secured. The length of the sleeves *c c*, and in consequence the space between *d* and *a'*, is such that the fingers or knuckles of the hand can be easily and comfortably inserted through it. The second cross-bar *e*, provided  
85 with the looped ends *e' e'*, is secured in the position shown by means of nuts *f f* on the screw-threaded ends *b' b'* of the prongs *b b*. A number of helical springs *g g* are looped onto the rod or cross-bar *e* and secured to the  
90 cross-piece *d* at their lower ends by the hooks *h h*. The degree of tension on the springs *g g* in the normal position of the appliance—namely, that shown in the drawing—may be varied by altering the position of the rod *e*, and this may be effected by means of the  
95 nuts *f f*.

*i i* are two rubber stops, consisting, preferably, of short lengths of rubber tubing, which being fixed by any convenient means upon the prongs *b b* in the position indicated in the  
100



drawing serve to prevent jar when the grip  $a'$  is suddenly released.

5 In using my improved mechanical arrangement for strengthening the muscles of the hand and arm the two grips  $a$  and  $a'$  are grasped like an ordinary dumb-bell and by muscular pressure caused to approach one another till the parts assume the position shown in dotted lines in the drawings.

10 I claim—

1. An improved mechanical arrangement for strengthening the muscles of the hand and arm and consisting of the combination of a grip provided with two parallel prongs at right angles to its length, of those prongs connected together at their ends by a cross bar or rod carrying helical springs, of a second movable grip capable of movement on the said prongs and connected by sleeves surrounding the prongs to the cross-bar hooked to the ends of the helical springs, the opposite ends of which are looped upon the rod connecting the ends of the prongs, the tension on the springs being increased when the

grip is employed for exercise, substantially as described and set forth. 25

2. In mechanical arrangements for strengthening the muscles of the hand and arm consisting of a fixed grip and a movable grip in which the latter is controlled by helical springs, means for adjusting the tension on the said springs consisting of a rod on which the springs are looped the position of which can be varied by means of nuts which secure its ends on the ends of prongs fixed in one of the grips, and of a cross-bar connected rigidly with the movable grip, this cross-bar being attached to the ends of the helical springs opposite to those at which they are looped by means of hooks mounted thereon, substantially as described and set forth. 30 35 40

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EDMUND PERRY.

Witnesses:

S. W. ALLEN,  
G. JONES.