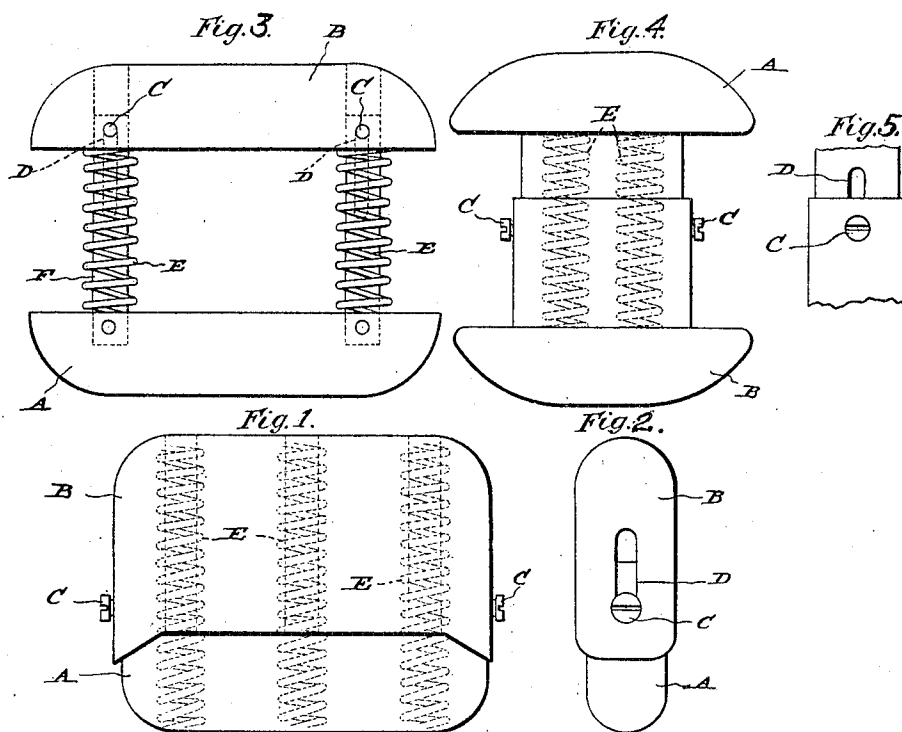


No. 843,291.

PATENTED FEB. 5, 1907.

A. P. MULLINS.
PHYSICAL DEVELOPMENT APPLIANCE.
APPLICATION FILED FEB. 6, 1906.



Witnesses:
R. F. Tomlinson
W. R. Hammond

Inventor:
Alfred P. Mullins
By Frederick B. Knight
Attorneys

UNITED STATES PATENT OFFICE.

ALFRED PATRICK MULLINS, OF GLASGOW, SCOTLAND.

PHYSICAL-DEVELOPMENT APPLIANCE.

No. 843,291.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 6, 1906. Serial No. 299,831.

To all whom it may concern:

Be it known that I, ALFRED PATRICK MULLINS, a subject of the king of the United Kingdom of Great Britain and Ireland, residing at Glasgow, Scotland, have invented certain new and useful Improvements in Physical-Development Appliances, of which the following is a specification.

The present invention relates to physical-development appliances, and has for its object the construction of a simple and effective device which may be carried in the hand and by the movement thereof compressed and expanded to develop the muscles of the hand, arms, and body.

The invention consists of a pair of grips of cork, wood, metal, or other suitable material which are of a size to be practically invisible when carried in the hand. Between these grips are secured springs or other resilient means which are normally in expanded condition and which upon force being exerted thereon, such as the closing of the hand, will be compressed and then returned to normal condition upon the hand being opened. The force exerted in this movement of the hand is very beneficial and develops the strength of the muscles of that member, the arm, and the body.

In the drawings forming part of this specification, Figure 1 is an elevation showing the telescoping grips and the springs secured therein in dotted lines. Fig. 2 is an end view of Fig. 1. Figs. 3 and 4 are modifications of the form shown in Fig. 1. Fig. 5 shows the pin-and-slot connection between the grips.

The invention will now be described with reference to the drawings, and the distinctive features pointed out more particularly in the annexed claims.

The grips A B are formed of any suitable material and are of a size to be firmly and comfortably held in the hand so that they are practically invisible. The grip A is telescoped into the grip B and is provided at each end with a pin C, which travels in an elongated slot D, located in each end of the grip A. Mounted within the grips A B are a plurality of spiral springs E, which are normally in expanded condition and hold the pins C against the ends of the slots D. The expansion of the springs is limited by the pins C abutting the slots D, the pins being free to slide back and forth in the slots D. When pressure is applied to the grips, it will be observed that the springs E will be compressed

and the grip A will slide into the grip B, being guided by the pin-and-slot connection. Upon the grips being relieved of pressure they will immediately assume their normal condition.

In the form shown in Fig. 3 the grip A is provided with guide-pins F, upon which the springs E are mounted and which telescope into the grip B, being held in position by means of the pin C and elongated slot D.

In the modification illustrated in Fig. 4 the springs are inclosed by a telescopic casing secured to the grips and provided with pin-and-slot connections similar to the other forms.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a device of the character described, the combination of two telescoping members slidably connected together, a plurality of posts mounted within one of said members and spiral springs mounted on said posts and adapted to be compressed by said telescoping members.

2. In a device of the character described, the combination of a pair of telescoping members slidably connected together, a plurality of spiral springs normally in expanded position mounted within said members and adapted to be compressed thereby, and means on one of said members for maintaining said springs in operative position.

3. In a device of the character described, the combination of two telescoping members, an elongated slot located in each end of one of said telescoping members, a pin located in each end of the other of said telescoping members and engaging said elongated slots, a plurality of posts mounted within one of said telescoping members and a plurality of spiral springs mounted on said posts and adapted to be compressed by the movement of said telescoping members.

4. In a device of the character described, the combination of two telescoping members slidably connected together, a plurality of posts mounted within one of said members, a plurality of spiral springs normally in expanded position mounted on said posts and adapted to be compressed by the movement of said telescoping members for the purposes described.

ALFRED PATRICK MULLINS.

Witnesses:

JOHN VRASER,
FRED MIDDLETON.