March 10, 1931. O. E. PETTERSSON 1,796,216

APPARATUS FOR DEVELOPING THE MUSCLES OF THE HAND

Filed May 24, 1930

Fig. 1.

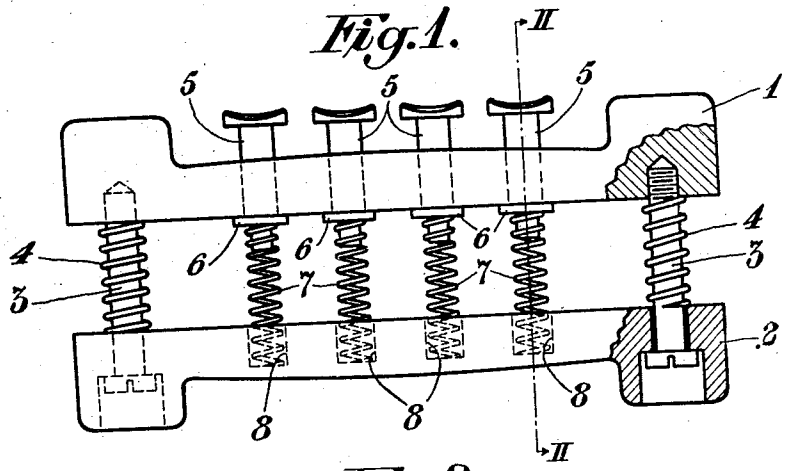


Fig. 2.

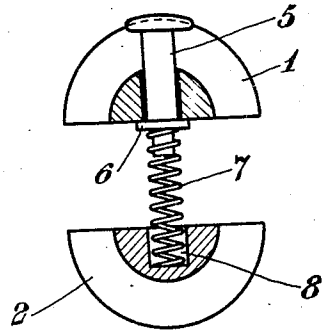
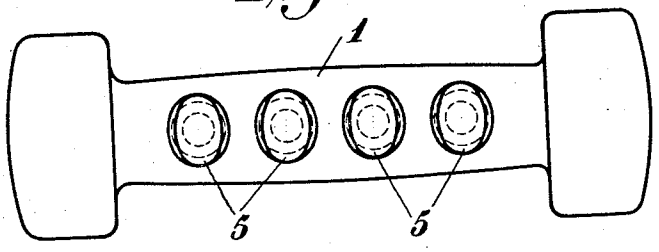


Fig. 3.



Inventor:
Oskar Evald Pettersson

by Gwyn, Bayard Jones.

Attorney.

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UNITED STATES PATENT OFFICE

OSKAR EVALD PETTERSSON, OF KARLSKRONA, SWEDEN

APPARATUS FOR DEVELOPING THE MUSCLES OF THE HAND

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The present invention relates to an apparatus for use for developing and strengthening the muscles of the hand.

In the use of old apparatus of this type which consists of two hand grips movably connected to each other and adapted to be moved towards one another against the action of springs, practically only the metacarpal-muscles are employed for pressing the hand grips together.

The purpose of the present invention is to provide an apparatus of this type in the use of which also the finger muscles are employed, and then, the muscles of each finger by itself, so that the muscles of the metacarpus and of the fingers become strengthened and developed in the correct proportion.

For this purpose the apparatus according to the present invention is provided with a plurality of keys or the like which are independently movable and capable of being actuated against the action of springs. Preferably, four such keys are used.

In the accompanying drawing an apparatus constructed according to the invention is illustrated by way of example. Fig. 1 shows the apparatus viewed from the side and partly in section. Fig. 2 shows a section on the line II—II in Fig. 1, and Fig. 3 shows the apparatus viewed from above in Fig. 1.

The apparatus consists in a well-known manner of two hand grips 1 and 2, two screws 3 having a sliding fit in the hand grip 2 being screw-threaded into the hand grip 1.

A coil spring 4 surrounds each of the screws 3, and the ends of said coil springs bear against the hand grips 1 and 2, so that the springs oppose movement of the hand grips towards each other. The heads of the screws 3 limit the movement of the hand grips 1 and 2 away from each other.

Four keys or buttons 5 are slidable in the hand grip 1 and are provided on the inside of said hand grip with flanges 6 which limit the outward movement of said keys 5. Bearing against each flange 6 is the end of a coil spring 7 the other end of which bears against the bottom of a hole 8 in the hand grip 2.

The springs 4 as well as the springs 7 thus tend to move the hand grips 1 and 2 away from each other, and each spring 7 opposes inward movement of the associate key 5.

For pressing together the hand grips 1 and 2 the metacarpal muscles are employed in a well-known manner, and for pressing in the keys 5 the muscles of each finger by itself are employed. By suitable manipulation of the apparatus all muscles of the hand are thus brought into use, so that a uniform development and strengthening of the muscles is produced.

The muscles of the thumb are of course employed simultaneously with the metacarpal muscles, and therefore, the apparatus is only provided with four keys for the other fingers of the hand.

The embodiment described and illustrated in the drawing may of course be modified in several ways without departing from the principle of the invention.

I claim:

1. An apparatus for developing the muscles of the hand, comprising in combination two hand grips movably connected to each other, spring means tending to move said hand grips away from each other, a plurality of movable keys adapted to be engaged by the fingers of the hand when gripping the apparatus for moving the hand grips towards one another, and spring means opposing movement of said keys.

2. An apparatus for developing the muscles of the hand, comprising in combination two hand grips movably connected to each other, spring means tending to move said hand grips away from each other, a plurality of keys slidable in one of said hand grips and adapted to be engaged by the fingers of the hand when gripping the apparatus for moving the hand grips towards one another, and a spring for each of said keys interposed between such key and the other of said hand grips in such manner as to oppose movement of said hand grips towards one another.

OSKAR EVALD PETTERSSON.