V. M. DEL VALLE Y ZENO.

WRIST DEVELOPER AND STRENGTH TESTER.

APPLICATION FILED MAY 13, 1908.

911,925. Patented Feb. 9, 1909.

Fig. 1.

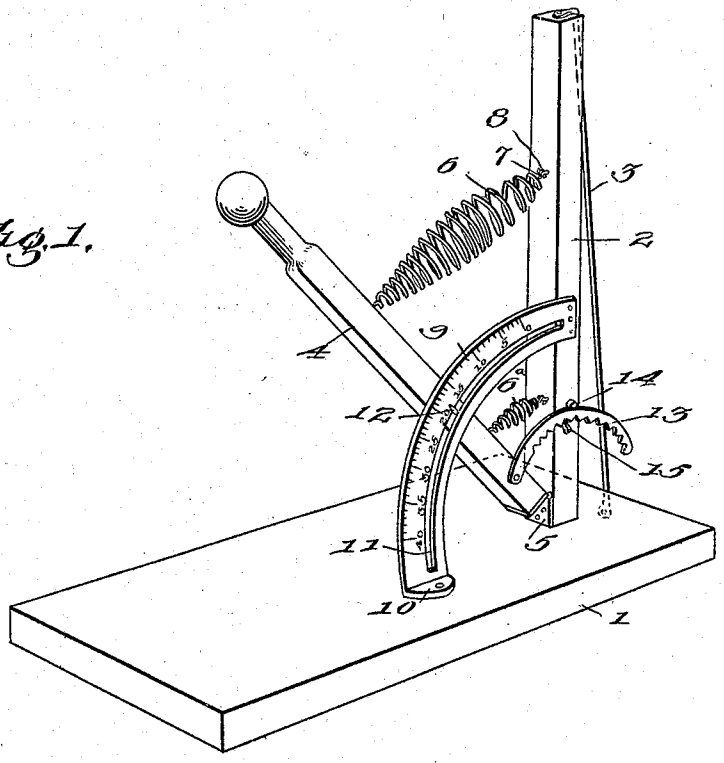
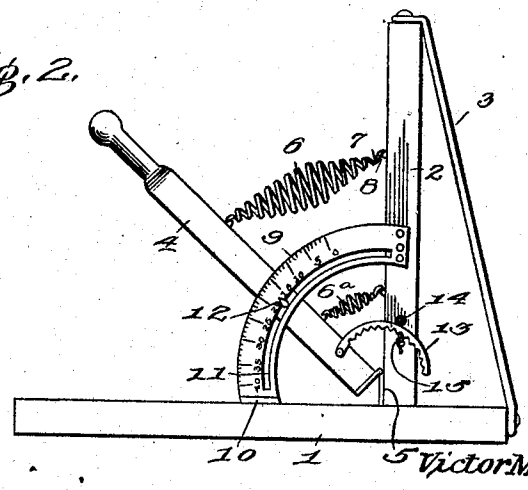


Fig. 2.



Witnesses

Inventor

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By

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UNITED STATES PATENT OFFICE.

VICTOR M. DEL VALLE Y ZENO, OF SAN JUAN, PORTO RICO.

WRIST-DEVELOPER AND STRENGTH-TESTER.

No. 911,925. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed May 13, 1908. Serial No. 432,753.

To all whom it may concern:

Be it known that I, VICTOR M. DEL VALLE Y ZENO, a citizen of the United States, residing at San Juan, in the county of Bayamon, Porto Rico, have invented certain new and useful Improvements in Wrist-Developers and Strength-Testers, of which the following is a specification.

This invention comprehends certain new and useful improvements in exercising appliances, and the invention has for its object a simple, durable and efficient construction of wrist developer and strength tester that may be cheaply manufactured and conveniently operated to develop the muscles of the forearm and wrist, as well as to indicate the strength of the person manipulating the device.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combination of the parts that I shall hereinafter fully describe and claim.

For full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a perspective view of an exercising appliance constructed in accordance with my invention; and Fig. 2 is a side elevation thereof.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates the base of my improved exercising device, said base being formed of wood or any other desired material or substance and being of any desired size, so long as it possesses the necessary stability when it is rested upon a table, desk, or other support.

2 designates a standard which is secured to and which rises from the base 1. A wire 3 or the like is secured to the standard 2 at the upper end of the standard, and extends downwardly at the rear side of the standard and is secured at its lower end to the base 1, so as to brace the standard, as against forwardly acting strains.

An oscillating handle lever 4 is hinged at one end as at 5 to the standard 2 and is mounted to swing about a longitudinal axis to the front of the standard. One or more contractile springs 6 are secured in a detachable manner as by hooks or staples 7 and 8 to the handle 4 and standard 2 respectively, two of these springs designated 6 and 6^a being shown in the present instance, but it is understood that any desired number may be employed, according to the relative strength of the person for whom the device is intended.

In order to indicate the development of the muscles and to test the strength of the forearm and wrist of the operator a scale bar 9 is secured at one end to one side of the standard 2 and secured at its other end, as by the laterally projecting foot 10, to the base 1 in front of the standard. The scale bar 9 is graduated as shown, the graduations being scientifically tested, and the scale bar is formed with a curved slot 11 which receives an indicator or pointer 12 secured to one side of the handle lever 4. In addition to its function as a scale, the bar serves as a brace to co-act with the brace 3 in holding the standard 2, as against forwardly acting strains.

In order that the handle lever may lock after it has been tilted over away from the standard 2, so that the operator may read the indications, on the scale bar and test his strength without the necessity of holding the handle lever at the limit of its movement, I have provided a segmental toothed rack bar 13 which is pivotally connected at one end to the handle lever 4 and which is held for sliding movement by means of a pin 14 projecting from one side of the standard 2. A spring pressed pawl is secured to the standard and is arranged for engagement with the teeth of the rack bar. In order to release the handle lever 4 it is only necessary to disengage the pawl 15 from the rack bar 13.

In the practical operation of my improved muscle developer and strength tester, when it is used as an exercising device solely the rack bar 13 is removed, and the hand lever is pressed up and down as many times as desired with either arm so as to develop the muscles of the forearm and wrist. In testing one's strength, the rack bar 13 is secured in place, so that it will catch the pawl 15 when the hand lever 4 has been tilted over as far as possible with the strength of the operator.

Having thus described the invention, what is claimed as new is:

1. An appliance of the character described, comprising a base, a standard se-

cured to and rising from said base, a handle lever hinged at one end to the base at the foot of the standard and at the front thereof, a contractile spring connection between the handle lever and the standard, a brace secured to the base and to the standard at the rear of the latter, and a scale bar secured to the base and to the standard above the foot of the latter and in front of the same, so as to assist in bracing the standard, the handle lever being provided with a pointer co-acting with the graduations of the scale bar.

2. An appliance of the character described, comprising a base, a standard secured to and rising from said base, a handle lever hinged at one end to the base at the foot of the standard, a contractile spring connection between the handle lever and the standard, and a scale bar secured to the base and to the standard above the foot of the latter, the handle lever being provided with a pointer co-acting with the graduations of the scale bar.

3. An appliance of the character described, comprising a base, a standard secured to and rising from said base, a handle lever hinged at one end to the base and fulcrumed on the lower end of the standard, a scale bar secured to the standard and base, the handle lever being provided with a pointer for the scale bar, a contractile spring connection between the handle lever and standard, a rack bar pivotally connected to the handle lever and having a movable guiding connection with the standard, and a pawl secured to the standard and arranged for engagement with the rack bar.

In testimony whereof I affix my signature in presence of two witnesses.

VICTOR M. DEL VALLE Y ZENO. [L. S.]

Witnesses:

RAMÓN GARDÓN,

RAFAEL NONES.