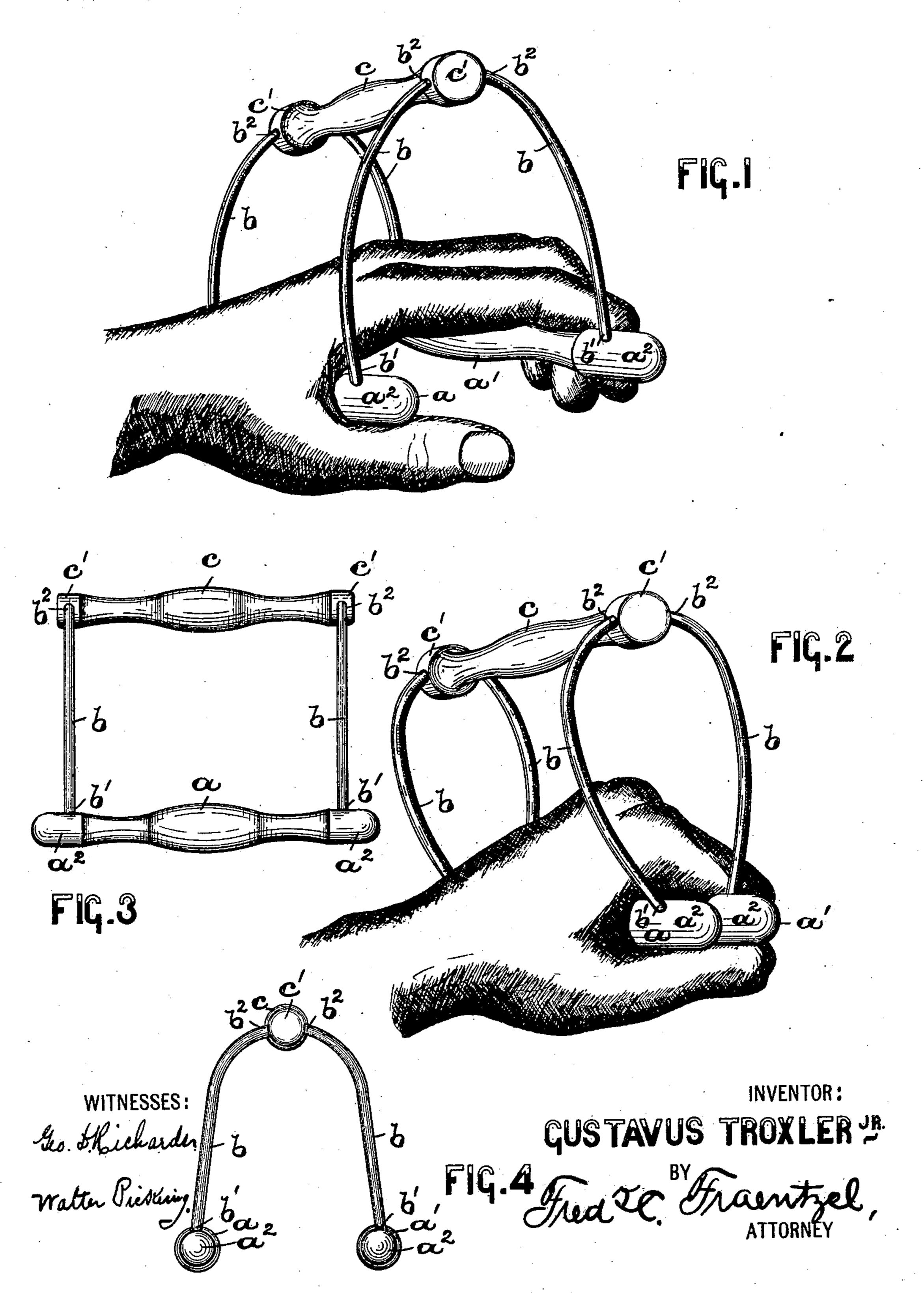
G. TROXLER, JR.

DEVICE FOR DEVELOPING THE MUSCLES OF THE HANDS AND FINGERS.

(Application filed Oct. 27, 1900.)

(No Model.)



United States Patent Office.

GUSTAVUS TROXLER, JR., OF NEWARK, NEW JERSEY, ASSIGNOR TO JOHN HOLMES, OF SAME PLACE.

DEVICE FOR DEVELOPING MUSCLES OF THE HANDS AND FINGERS.

SPECIFICATION forming part of Letters Patent No. 677,824, dated July 2, 1901.

Application filed October 27, 1900. Serial No. 34,553. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVUS TROXLER, Jr., a citizen of the United States, residing at Newark, in the county of Essex and State of 5 New Jersey, have invented certain new and useful Improvements in Exercising Devices for Developing the Muscles of the Hand and Fingers; and I do hereby declare the following to be a full, clear, and exact description 10 of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a 15 part of this specification.

This invention relates to a novel exercising device for the strengthening or the development of the muscles of the fingers; and the invention has for its principal object to pro-20 vide a simple and cheaply-constructed device for the purposes above stated which can be taken in either hand and manipulated in | the manner to be hereinafter more fully set forth for the development and strengthening 25 of the muscles in the fingers or other portions

of the hand.

The invention consists in the novel exercising device, to be fully set forth in the following specification, and also in the several 30 novel arrangements and combinations of the various parts thereof, all of which will be described in detail hereinafter and then finally embodied in the clauses of the claim, which form a part of this specification.

The invention is clearly illustrated in the

accompanying drawings, in which—

Figures 1 and 2 are two perspective views of the exercising device, illustrating its use and the manner of manipulating the device 40 for the development of the muscles of the fingers or other portions of the hand. Fig. 3 is a front elevation of the exercising device embodying the principles of my present invention, and Fig. 4 is an end view of the same.

Similar letters of reference are employed in all of the said above-described views to indi-

cate corresponding parts.

My novel construction of exercising device or muscle-developer consists, essentially, of a 50 pair of lower bars or hand portions a and a', which are suitably curved substantially in

the manner represented in Fig. 3 of the drawings. These bars or hand portions can be readily grasped in the hand in the manner illustrated more particularly in Fig. 1 of the 55 drawings and for the purposes hereinafter more fully described. Suitably secured to the respective ends a^2 of the said lower bars or hand portions a and a' are the free ends b'of a piece of spring-wire b—one wire at each 60 end of the device. These two wires or bands b are bent in the manner of an inverted U, as clearly illustrated in said Fig. 1, and their highest points or parts b^2 are passed through and suitably secured in the perforated end 65 portions c' of an upper bar c. This bar may

be suitably ornamented, as shown.

When the device is not in use, then the spring portions of the wires or bands b will cause the two lower bars or hand portions a 70 and a' to be forced in outward and opposite directions from each other, thereby causing them to assume the positions represented in Figs. 1 and 4, and the said bars \bar{a} and a' can then be arranged, as shown, one in the palm 75 of the hand and the other grasped by the fingers, as illustrated in Fig. 1. By closing the fingers, as illustrated in Fig. 2 of the drawings, the two lower bars or hand portions aand a' are brought together against the out- 80 ward spring action of the portions of the spring wires or bands b, whereby sufficient force or strain is brought on the muscles of the fingers or other portions of the hand to greatly develop the same and strengthen the 85 muscles, as will be clearly evident. By opening and closing the fingers the several parts of the exercising device A will successively assume the positions indicated in Figs. 1 and 2, respectively.

Of course it will be evident that the device A may be variously grasped or taken in hand for different finger development, and the device may be grasped between the fingers and thumb of one hand or of both hands at the 95

same time, if desired.

Having thus described my invention, what I claim is—

1. An exercising device for developing the. muscles of the hand and fingers, comprising, 100 an upper bar and a pair of lower and movable bars or hand portions, and a connecting

spring device between said upper bar and the said lower and movable bars or hand portions, adapted to normally force said bars or hand portions in opposite directions from each other, but said bars or hand portions being capable of being forced toward each other by pressure from the hand or fingers, substantially as and for the purposes set forth.

2. An exercising device for developing the muscles of the hand and fingers, comprising, a pair of movable bars or hand portions, and n-shaped spring bands or wires having their ends connected with and secured to said movable bars or hand portions, substantially as and for the purposes set forth.

3. An exercising device for developing the muscles of the hand and fingers, comprising a pair of movable bars or hand portions, a n-shaped spring band or wire having its ends

20 connected with and secured to said movable bars or hand portions, substantially as and for the purposes set forth.

4. An exercising device for developing the muscles of the hand and fingers, comprising a pair of movable bars or hand portions, and

a pair of \mathbf{n} -shaped spring bands or wires having their ends connected with and secured to said movable bars or hand portions, and an intermediately-arranged bar on said \mathbf{n} -shaped spring bands or wires, substantially as and 30

for the purposes set forth.

5. The herein-described exercising device for developing the muscles of the hand and fingers, consisting, essentially, of a pair of lower bars or hand portions a and a', each provided 35 with end portions a^2 , spring wires or bands b having their free ends b' connected with and secured to said end portions a^2 , and an upper bar c having perforated end portions c' though which the highest points or parts b^2 40 of said spring wires or bands are passed, and are secured therein, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 45

16th day of October, 1900.

GUSTAVUS TROXLER, JR.

Witnesses:

FREDK. C. FRAENTZEL, GEO. D. RICHARDS.