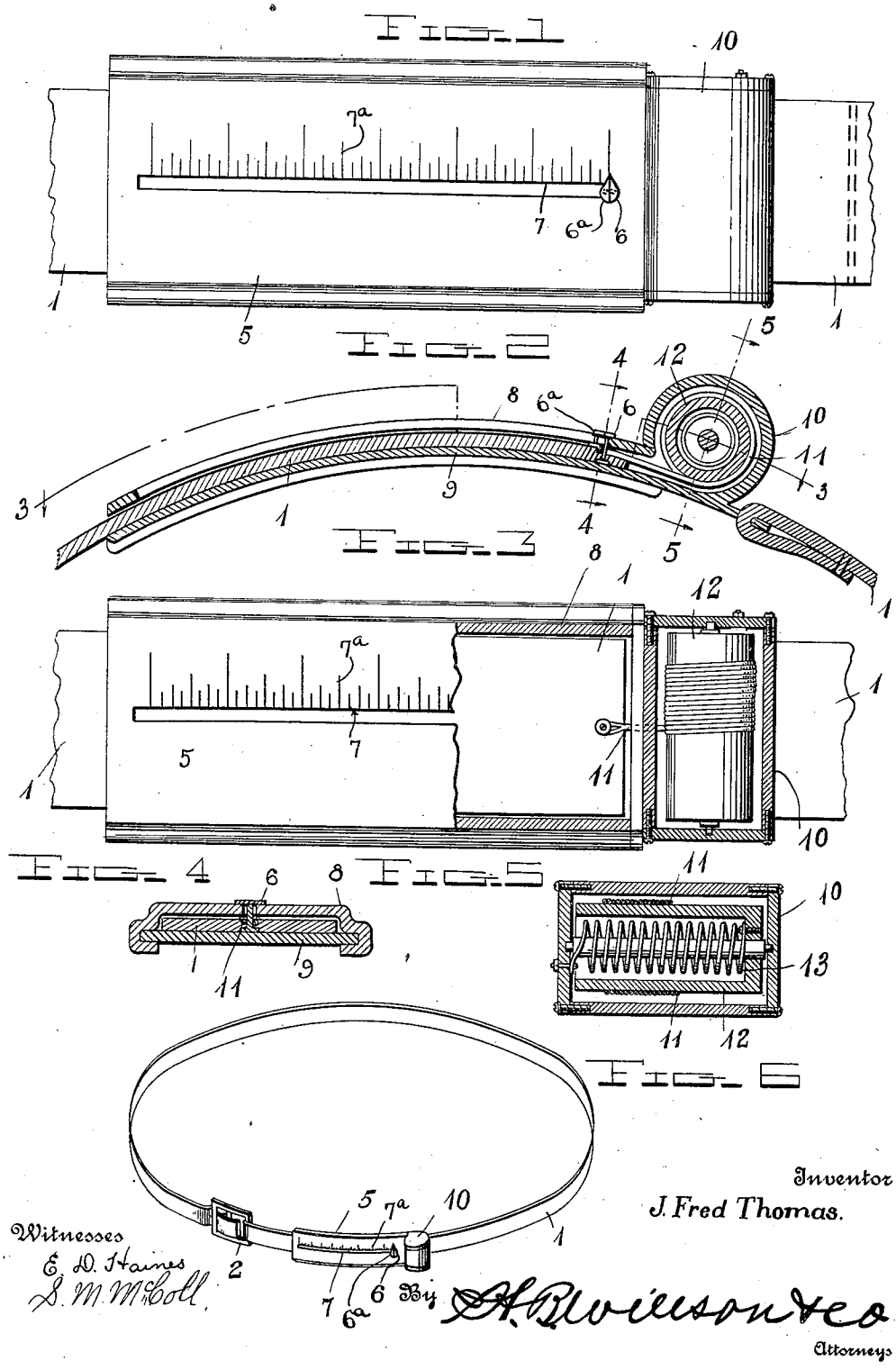
J. F. THOMAS.

EXERCISING APPARATUS.

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1,096,206. **Patented May 12, 1914.**



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EXERCISING APPARATUS.

1,096,206. Specification of Letters Patent. Patented May 12, 1914.

Application filed January 3, 1913. Serial No. 740,055.

To all whom it may concern:

Be it known that I, JAMES FRED THOMAS, a citizen of the United States, residing at Clarinda, in the county of Page and State of Iowa, have invented certain new and useful Improvements in Exercising Apparatuses; and I do 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.

This invention relates to improvements in exercising devices for the lungs and more especially to those for developing and training the muscles for deep breathing and chest expansion.

The object of the invention is to provide a simple and efficient device constructed to train the wearer thereof to breathe correctly with the diaphragm and which may also be used for chest and bust expansion.

Another object of the invention is to provide a device of this character designed to gently massage the internal organs of the abdomen or chest and thereby overcome disorders and stimulate the circulation.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and claimed.

In the accompanying drawings: Figure 1 represents a plan view of this improved device applied to a belt, the belt being broken away for convenience in illustrating; Fig. 2 represents a longitudinal central vertical section thereof; Fig. 3 represents a horizontal section taken on the line 3—3 of Fig. 2; Fig. 4 represents a transverse vertical section taken on the line 4—4 of Fig. 2; Fig. 5 is a transverse section taken on the line 5—5 of Fig. 2; Fig. 6 is a perspective view of a belt with this improved device applied ready for use.

In the embodiment illustrated, the device is shown applied to a belt 1 composed of any suitable inelastic flexible material and having a buckle 2 for adjusting it to fit the body of the wearer. One end of this belt 1 is secured to a casing 5 in any suitable manner and the other end thereof is slidably mounted relative to said casing and is secured to an indicator 6 which slides in a slot 7 in the front wall of said casing, a scale 7^a being arranged adjacent said slot to indicate the number of inches expanded. Another indicator 6^a is slidable in the slot 7 in advance of the indicator 6 and is designed to be moved forward by said indicator 6 and has sufficient frictional engagement with the walls of the slot to remain in the position to which it is forced by slide 6 and to thus mark the number of inches, expanded. The next inhalation will be designed to force the indicator 6 farther down the slot and thus develop the lungs.

The casing 5 as shown is constructed of a plate 8 of metal or other suitable material which is here shown provided with inturned side flanges 8^a which form guides to receive another plate 9 on which a transversely arranged cylindrical hood 10 is mounted for a purpose to be described. The plates 8 and 9 are spaced a sufficient distance to receive the belt 1, the end of which is connected with the indicator 6. This indicator 6 is also connected with a yieldable or resilient member here shown in the form of a cord 11, wound on a spring drum 12 which is revolubly mounted in the casing 10, said drum being mounted similarly to a spring roller of a curtain shade. The spring 13 thereof, the tension of which controls the expansibility of belt 1 and is designed to cause the belt to exert a massaging effect on the muscles of the wearer as well as to automatically return the indicator to its initial position. This spring 13 may, if desired, be removed and a stronger or a weaker spring substituted to vary the tension and the massaging effect of the belt to which the device is applied.

In the use of this expander, the belt 1 may be adjusted around the waist of the wearer when it is designed for use in training the abdominal muscles in diaphragmatic breathing, which is difficult to acquire without the use of some such device, as a beginner is apt to lose control of the abdominal muscles. When so applied, this belt offers a slight resistance and serves to gently massage the internal organs of the abdomen, the indicator moving down the scale 7^a on each inhalation and thereby accurately indicating the number of inches the abdomen is expanded.

By adjusting this device around the chest, a person can accurately measure chest expansion by noting the number of inches expanded, as shown by the indicator. With each breath the chest swells and expands and the indicator 6 moves down the scale of

inches against the tension of springs 13 and carries with it indicator 6^a which accurately denotes the number of inches of chest expansion. The spring drum 12 returns the indicator 6 to normal position when the breath is exhaled and the device thus operates automatically, the indicator 6^a remaining at the point where it is forced by the indicator 6 until said last mentioned indicator returns to force it farther forward.

While I have described my invention with more or less minuteness as regards details and as being embodied in certain precise forms, I do not desire to be limited thereto unduly any more than is pointed out in the claims. On the contrary, I contemplate all proper changes in form, construction and arrangement, the omission of immaterial elements and substitution of equivalents as circumstances may suggest or render expedient.

I claim as my invention:—

1. An exercising belt comprising a body encircling strip having an indicator secured to one end and a casing secured to the other end and resilient means connecting said casing and indicator.

2. An exercising belt comprising a body encircling strip having a casing secured thereto and open at one end and provided with a longitudinal slot in one wall, an indicator slidable in said slot, one end of said strip being secured to said casing and the other end slidable in said casing and secured to said indicator, and a resilient element connecting said casing and indicator.

3. An expanding device comprising an inelastic strip, a casing secured to said strip and having one end of said strip slidable relatively thereto, an indicator secured to said slidable strip end and slidably engaged with said casing, and a resilient element connecting said casing and indicator.

4. An expanding device comprising an inelastic strip, a casing secured to said strip and having one end of said strip slidable relatively thereto, an indicator secured to said strip end and slidably engaged with said casing, a housing arranged transversely on said casing, a spring drum revolubly mounted in said housing, and a flexible element secured at one end to said drum and at its other end to said indicator.

5. An expanding device comprising an inelastic strip, a casing secured to said strip and having one end of said strip slidable relatively thereto, an indicator secured to said strip end and slidably engaged with said casing, a housing arranged transversely on said casing, a spring drum revolubly mounted in said housing, and a flexible element secured at one end to said drum and at its other end to said indicator, and a loosely mounted indicator slidable in said casing in advance of said first mentioned indicator and operable thereby.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES FRED THOMAS.

Witnesses:
GLOLA STIVERSON,
HAROLD THOMAS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."