No. 694,226. Patented Feb. 25, 1902.

C. C. YANCEY.

COIN CONTROLLED MUSCLE TESTER.

(Application filed Feb. 5, 1901.)

(No Model.)

Fig. 1.

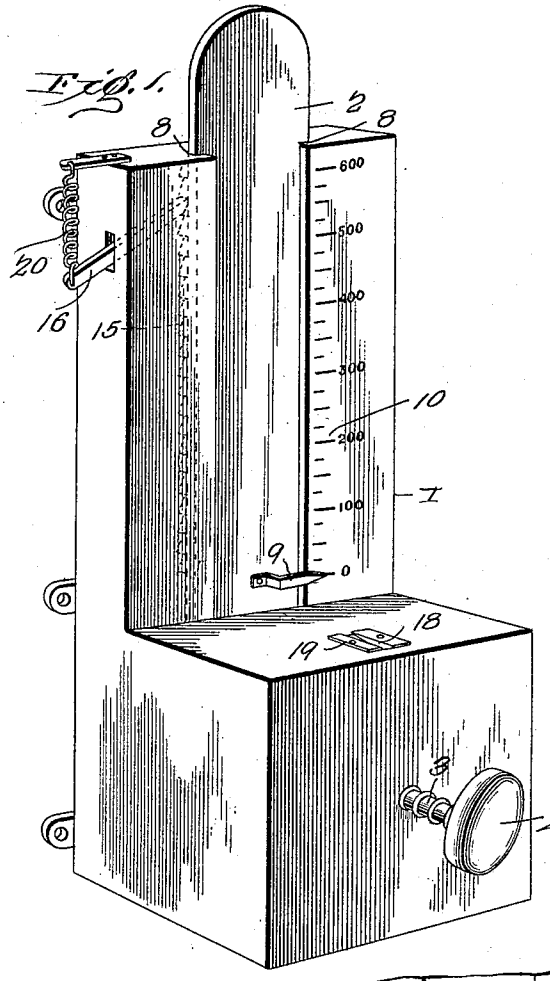


Fig. 2.

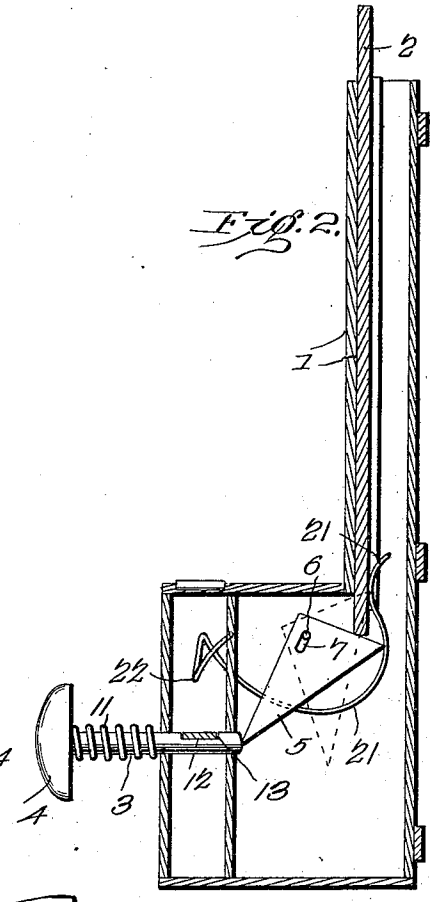
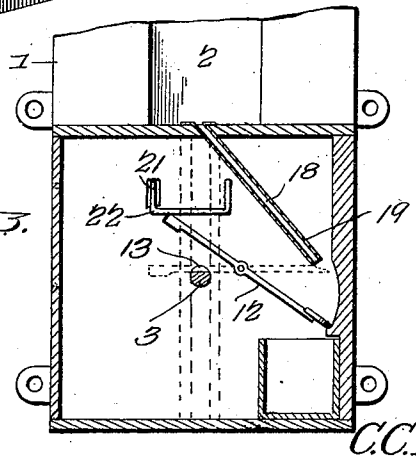


Fig. 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHRISTOPHER C. YANCEY, OF YANKTON, SOUTH DAKOTA, ASSIGNOR OF TWO-THIRDS TO PETER STEFFEN AND FLORIAN J. HATZ, OF YANKTON, SOUTH DAKOTA.

COIN-CONTROLLED MUSCLE-TESTER.

SPECIFICATION forming part of Letters Patent No. 694,226, dated February 25, 1902.

Application filed February 5, 1901. Serial No. 46,079. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. YANCEY, a citizen of the United States, residing at Yankton, Yankton county, South Dakota, have invented a new and useful Coin-Controlled Muscle-Tester, of which the following is a specification.

The invention relates to improvements in muscle-testers.

The object of the present invention is to improve the construction of muscle-testers and to provide a simple and efficient coin-controlled device adapted for exercise and pleasure and capable of indicating the force of a blow delivered upon it.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a muscle-tester constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a transverse sectional view.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a casing having an upright portion in which is mounted a vertically-slidable bar 2, adapted to be driven upward by a plunger 3, having a cushioned head 4. The cushioned head is arranged on the exterior of the casing and is adapted to be struck by the fist of the operator after the plunger has been released by depositing a coin in the machine. The inner end of the plunger is arranged to engage the lower portion of an approximately triangular lever 5, fulcrumed on a transverse pin 6 and extending beneath and arranged to engage the lower end of a slidable bar 2. The triangular lever is provided with a slot 7 to receive the pin 6, and when the plunger is forced inward the triangular block or lever swings upward and throws the slidable bar upward. The upper portion of the casing is provided at the front with an opening to receive the vertically-movable bar, and it has ways 8 at opposite sides of the opening for the edges of the bar, which may be of any desired weight to resist upward movement. The upwardly-movable bar is provided with a hand or indicator 9, arranged to move over a suitable scale 10, for indicating the force of the blow. The plunger after being operated is returned to its initial position by a coiled spring 11, and it is normally locked in such position by a pivoted bar 12. The bar 12, which is pivoted between its ends, has one end engaging the plunger, which is provided with a suitable shoulder 13, and the other end of the pivoted bar is arranged at the lower end of the coin-chute, which is adapted to direct a coin upon the pivoted bar. When a coin of the proper denomination is deposited in the coin-chute, the latter directs the coin to the outer end of the pivoted bar, which is tilted to an inclined position, whereby its inner end is carried away from the plunger. The plunger may then be operated, and the vertically-movable bar is also provided with a ratchet-bar 15, arranged to be engaged by a pawl 16. The coin is supported in a recess 18 of a bar 19 while the plunger is being operated, and it is thrown off the pivoted bar by the means hereinafter described to permit the latter to reëngage the plunger.

The pawl, which is pivoted between its ends, is actuated by a spring 20, which holds the engaging end of the pawl in contact with the ratchet-bar. The pawl is adapted to lock the vertically-movable bar in its highest position, and it will hold the said bar elevated until the pawl is disengaged by hand.

When the locking-bar is in an inclined position, its upper end is arranged adjacent to a spring 21, mounted within the casing and having an engaging portion 22, adapted to be vibrated into contact with the locking-bar to dislodge the coin and permit the locking-bar to resume its normal position. The spring has an upwardly-extending rear portion of approximately sigmoidal shape projecting into the plane of the vertically-movable bar when the latter is elevated, whereby it is adapted to be engaged by the vertically-movable bar when the same falls. When the vertically-movable bar strikes the rear portion

of the spring, the front portion is vibrated sufficiently to carry it into contact with the pivoted bar.

It will be seen that the muscle-tester is exceedingly simple and inexpensive in construction, that it cannot be operated until a coin is deposited in it, and that the falling of the vertically-movable bar will throw the coin from the locking-bar and permit the latter to reëngage the plunger.

What I claim is—

1. A machine of the class described comprising a casing, a vertically-movable bar, a plunger, a lever operated by the plunger and adapted to actuate the vertically-movable bar; a locking device for holding the plunger normally against movement, a spring arranged in the path of the vertically-movable bar and adapted to engage the locking device when the bar falls, and means for holding the bar in an elevated position, substantially as described.

2. A machine of the class described comprising a casing, a vertically-movable bar, a plunger, a lever arranged to be engaged by the plunger and adapted to actuate the bar, a locking-bar for holding the plunger against movement, and a spring arranged in the path of the vertically-movable bar and adapted to engage the locking-bar, substantially as described.

3. A machine of the class described comprising a casing, a vertically-movable bar, a horizontal plunger, an approximately triangular lever fulcrumed near one of its angles and arranged to be engaged by the plunger and extending beneath the vertically-movable bar and adapted to actuate the same, the transversely-disposed locking-bar pivotally mounted within the casing and adapted to be held out of engagement with the plunger by the weight of a coin, and a spring arranged in the path of the vertically-movable bar and located adjacent to and adapted to engage the locking device when the latter is held out of engagement by a coin, whereby the locking device will be caused to reëngage the plunger, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHRISTOPHER C. YANCEY.

Witnesses:
W. L. BRUCE,
THOMAS EDWARDS.