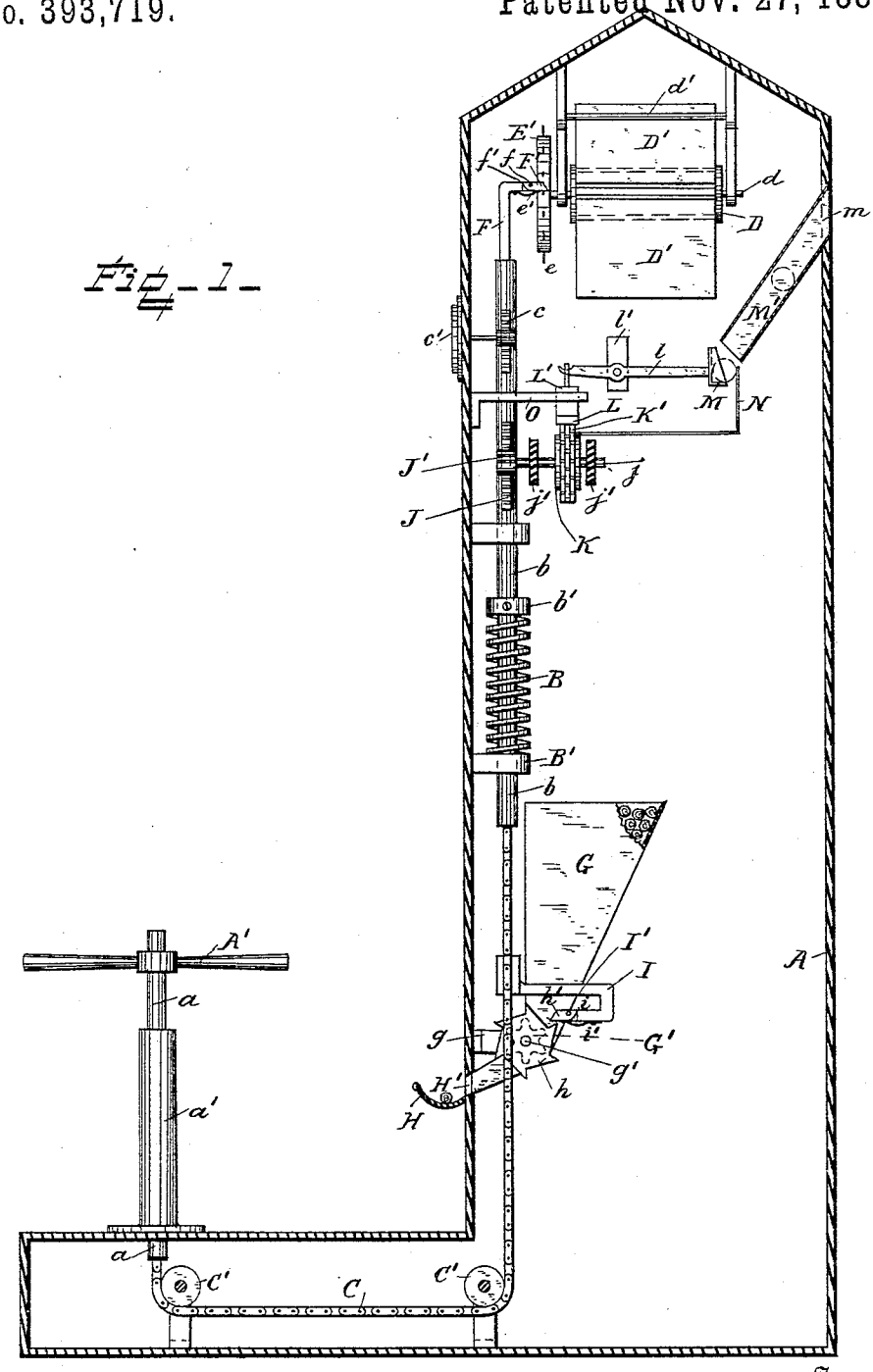
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J. M. O'KELLY.

COIN CONTROLLED APPARATUS FOR TESTING PHYSICAL POWER, DISPLAYING ADVERTISEMENTS, AND DELIVERING SMALL ARTICLES.

No. 393,719. Patented Nov. 27, 1888.

Fig. 1.



Witnesses.
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By his Attorney
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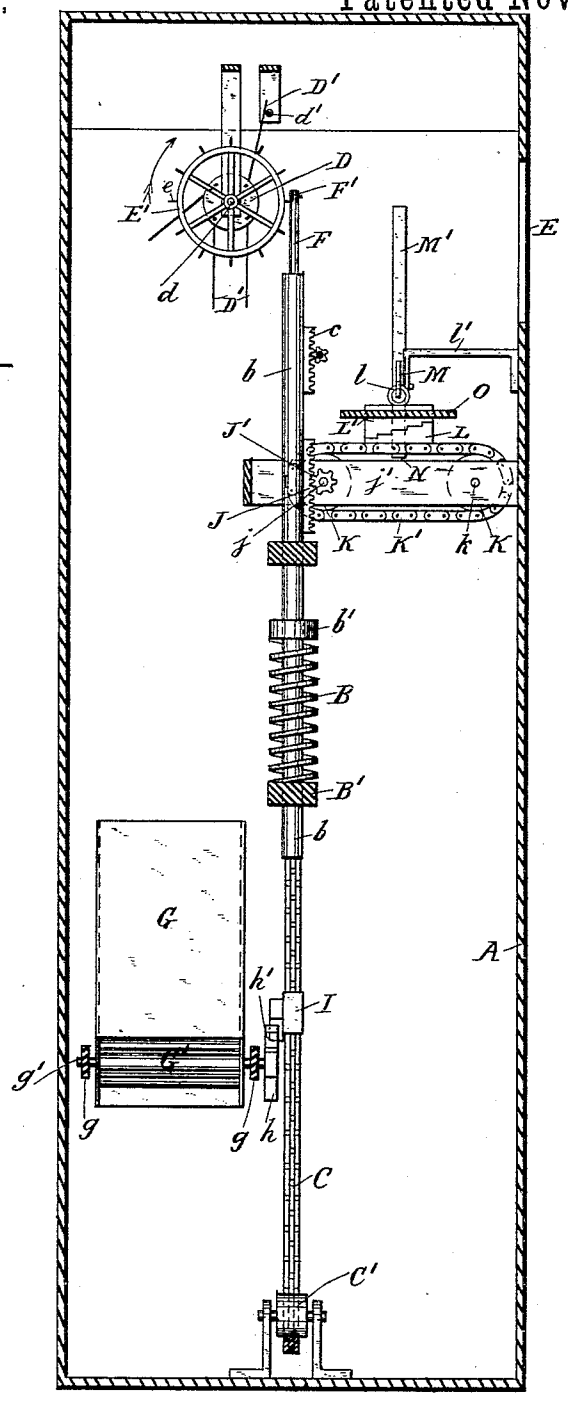
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J. M. O'KELLY.

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Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES M. O'KELLY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO GEORGE D. BAYAUD, OF SAME PLACE.

COIN-CONTROLLED APPARATUS FOR TESTING PHYSICAL POWER, DISPLAYING ADVERTISEMENTS, AND DELIVERING SMALL ARTICLES.

SPECIFICATION forming part of Letters Patent No. 393,719, dated November 27, 1888.

Application filed September 4, 1888. Serial No. 284,532. (No model.) Patented in England March 11, 1887, No. 3,730, and in Canada June 6, 1888, No. 29,289.

To all whom it may concern:

Be it known that I, JAMES M. O'KELLY, a citizen of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Coin-Controlled Apparatus for Testing Physical Power, Displaying Advertisements, and Delivering Small Articles; and I do hereby 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.

Patents for this invention have been obtained in England, No. 3,730, dated March 11, 1887, and in Canada, No. 29,289, dated June 6, 1888.

This invention relates to testing-machines; and it consists in the novel construction and combination of the parts, as hereinafter fully described and claimed, whereby the machine is adapted for simultaneously testing physical strength, displaying advertisements, and delivering small articles, and whereby the moving parts are released and allowed to operate by the introduction of a coin.

In the drawings, Figure 1 is a side view of the machine, with one side of the casing removed to show the mechanism inside. Fig. 2 is also a similar side view of the machine, but is taken at right angles to the view shown in Fig. 1.

A is the casing of the machine, which completely incloses its working parts and protects them from injury.

A′ is a handle connected to the bar *a*, which is supported by the pillar *a′*, secured to the frame. The physical strength of an individual may be tested by his upward pull on the handles against the resistance of the spring B inside the machine. The spring B rests upon the guide-bracket B′ around the rod *b*, which is provided with the fixed collar *b′*, which bears upon the top of the spring.

C is a chain which passes over pulleys C′ and connects the bottom of rod *b* with the bar *a*.

A toothed rack, *c*, is secured on the side of rod *b*, which rack turns a small toothed wheel upon the spindle of the indicator *c′*, thereby causing the indicator-hand to point to a figure on the indicator-dial corresponding to the compression of the spring and the strength of the individual.

The device for displaying advertisements is as follows:

D is a cylinder, to which the advertisement-cards D′ are pivoted at one of their ends. This cylinder is provided with a spindle, *d*, and as it revolves each card falls against the stop *d′*, which projects from the casing, until the continued motion of the cylinder in the direction of the arrow in Fig. 2 causes the card to slide off the stop and be displayed in front of the sight-window E in the casing.

E′ is a wheel secured upon the cylinder-spindle *d*, and *e* are pins which project from the circumference of the said wheel.

F is a small rod secured to the upper end of rod *b* and projecting at right angles from it. A tooth, F′, is pivoted to the end of rod F upon the pin *f;* and *f′* is a stop which prevents the tooth from turning in one direction, but leaves it free to turn downward. A spring, *e′*, prevents the said tooth from falling downward of its own weight. The tooth F′ engages with one of the pins *e* and turns the wheel E′, thereby displaying another advertisement-card every time the strength-testing handles are pulled upon and the spring B is compressed. The expansion of the spring B when the handles are let go raises the spring-tooth F′ on the end of rod F, and the spring *e′* allows the tooth to slide past and be ready to engage with another pin on the wheel E′.

The device for delivering small articles is as follows:

G is a vertical receptacle, in which the articles—such as cigars—are placed.

G′ is a corrugated cylinder journaled in brackets *g* at the bottom of the receptacle, and which allows the cigars to pass out one by one as the spindle *g′*, upon which the cylinder is rigidly secured, is revolved.

H is a small tray outside the casing, into which the cigars pass through the hole H′ in the casing as they fall from the cylinder. A ratchet-wheel, *h*, is secured upon the end of the

cylinder-spindle, and h' is a spring-tooth for operating the ratchet.

I is a plate secured to the chain C, and I' is the pin by which the tooth h' is pivoted to the said plate.

A stop, i, prevents the tooth from moving in one direction, and the spring i' prevents it from falling downward by its own weight. Every time the strength-handles are pulled upon the ratchet will be moved and a cigar will be delivered by the cylinder into the tray. When the handles are let go, the spring i' allows the tooth to pass over and be ready to engage with another tooth of the ratchet-wheel.

The coin-actuated releasing device is as follows:

J is a toothed rack secured to the rod b, and J' is a small wheel engaging with the rack and secured upon the spindle j, journaled in brackets j', secured to the casing.

K are chain-wheels secured upon the spindle j and on a similar spindle, k; and K' is an endless chain, which passes around the said chain-wheels K.

L is a stepped stop secured to the chain K', and L' is a similar stop pivoted to the end of the lever l, which is pivoted in the bracket l', secured to the casing.

M is a pocket at the other end of lever l, into which the coin passes from the chute M', which is connected to the casing at the top and receives the coin through the coin-slit m.

N is a guard-plate, which is secured to the chain K', and which retains the coin in the pocket M until the longitudinal movement of the said chain draws it past the said pocket. When a coin falls into the pocket M, its weight lifts up the stop L' at the end of lever l, so that the steps of the said stop are disengaged from the steps on the stop L, and the chain K' is therefore free to move. This allows the strength-testing mechanism to operate when the handles are pulled upon.

O is a plate secured to the casing and provided with a hole, in which the stop L' is free to move vertically, but which prevents it from being moved longitudinally by the stop L on the chain, and the said stop L is therefore also prevented from moving longitudinally unless a coin of sufficient weight is slid down the chute to act on the lever l. When the handles are let go in the ordinary manner, the stops engage, as shown in the drawings. The steps are brought into use if any one tries to let go of the handles gradually and allow some one else to take his place without paying. It is found that it is impossible for two persons to change places at the handles without letting them slip to some extent, and this is enough to permit the engagement of at least one pair of steps on the said stops, and although the said engagement may not be very satisfactory for general work it is sufficient to prevent habitual fraud from being practiced.

I do not limit myself to any particular form of handles or connection for testing strength, as the same may be variously modified and rendered applicable to one or both hands or feet, and also to measure physical strength applied in different directions—as, for instance, pushing or pulling horizontally.

What I claim is—

1. The combination, with a device for testing physical strength, provided with a reciprocating rod and a spring, as set forth, of a cylinder for displaying advertisements, a second cylinder for delivering small articles, and intermediate ratchet mechanisms connecting the said cylinders with the reciprocating rod, whereby both cylinders may operate simultaneously with the strength-testing device, substantially as set forth.

2. The combination, with a device for testing physical strength, provided with a reciprocating rod and a spring, as set forth, of a cylinder for displaying advertisements, a second cylinder for delivering small articles, intermediate ratchet mechanisms connecting the said cylinders with the reciprocating rod, whereby both cylinders may operate simultaneously with the strength-testing device, a sliding top secured to a moving portion of the testing device, a stop interlocking with the said sliding stop, and a lever for disengaging the stops when overbalanced by the weight of a coin, substantially as set forth.

3. In a strength-testing device, the combination, with a longitudinally-moving stepped stop and a reciprocating portion of the device, having said stop rigidly secured to it, of a vertically-moving stepped stop engaging with the aforesaid stop and normally preventing its longitudinal movement, a guide preventing the vertically-moving stop from sliding longitudinally, and a pivoted lever provided with a coin-pocket at one end for raising the vertically-moving stop in said guide and only permitting the device to be operated upon the introduction of a coin, substantially as set forth.

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

JAMES M. O'KELLY.

Witnesses:

HERBERT W. T. JENNER,

EMMA M. GILLETT.