No. 887,383. PATENTED MAY 12, 1908.

C. L. DOBRICK.

VIROMETER.

APPLICATION FILED DEC. 4, 1907.

Fig. 2.

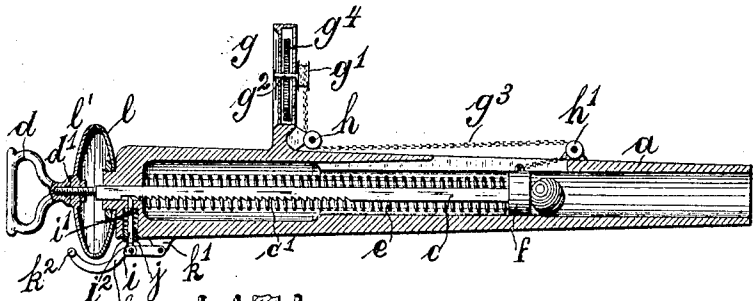


Fig. 3.

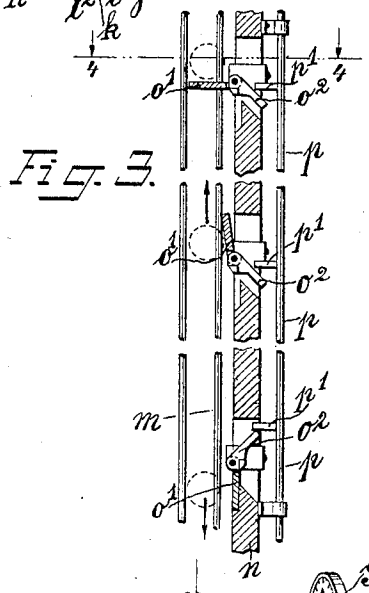


Fig. 4.

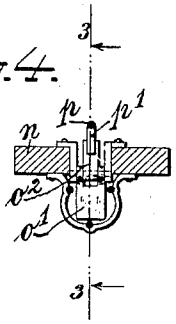


Fig. 1.

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VIROMETER.

No. 887,383. Specification of Letters Patent. Patented May 12, 1908.

Application filed December 4, 1907. Serial No. 405,042.

To all whom it may concern:

Be it known that I, CHARLES L. DOBRICK, a citizen of the United States of America, and a resident of 52 First street, New York, N. Y., have invented certain new and useful Improvements in Virometers, of which the following is a specification.

This invention has reference to a novel apparatus for public amusement. It pertains particularly to a novel device or virometer for testing the strength or physical vigor of persons.

The apparatus consists essentially of a gun mounted on a carriage. From the gun a ball is discharged in an upward direction by the muscular effort of a person. The ball ascends within a wire track having shelves or stops, said track being combined with the gun and provided with a graduated board or scale on which the strength is indicated in numbers.

The invention further consists in the construction and arrangement of the details and in the combination of parts.

It is illustrated in the accompanying drawing in which:

Figure 1 represents in perspective view an apparatus for testing the strength of a person which embodies in desirable form the present improvements. Fig. 2 illustrates in vertical longitudinal section the gun or cannon on lines 2—2 of Fig. 1. Fig. 3 shows in vertical section the wire track on lines 3—3 of Figs. 1 and 4 with three shelves or stops each one in a different position, and Fig. 4 is a horizontal section of a shelf or stop on lines 4—4 of Figs. 1 and 3.

Similar characters of reference denote like parts in all the figures.

On the drawing *a* represents the gun or cannon which is mounted on the gun carriage *b*. Within the cannon a strong rod or bar *c* is centrally located which extends through the rear end portion of the cannon and supports there a handle *d*. An open cylindrical spring *e* is located within the cannon. It surrounds the bar *c* and rests with one end against the inner rear portion of the cannon while its front end rests against the loose piston *f* which is permanently secured to the inner front end of the rod *c*. The rear portion of the cannon carries on its top an indicator *g* with dial and hand of usual construction. A small sheave g^1 is secured to the pin g^2 which carries the hand of the indicator. A fine chain is secured to the sheave and passes over two small pulleys h, h^1 and through the top of the cannon into its interior where it is secured to the loose piston *f*.

The rod or bar *c* is provided with a number of teeth c^1 in its rear portion and on its lower surface. A stop *i* is located in the lower rear portion of the cannon. It passes through a metal disk i^1 and a bushing i^2. Between the disk and the bushing there is a circular spring *j*. The stop extends below the bushing and is pivoted there to the lever *k* whose one end is pivoted to a small projection on the lower portion of the cannon while its other end is provided with a handle bar k^2.

In order to fully imitate a cannon a sound producing device is provided between the rear end of the cannon and the handle *d*. It consists of two curved metal disks *l*, l^1. One disk is secured to the rear portion of the cannon while the second disk is connected to an enlarged portion d^1 of the handle *d*. The disks meet so that a space is formed between.

The wire track *m* is connected to a flared tubular portion m^1 which fits the front end of the gun but shown separated therefrom in Fig. 1. The wire track is curved below and rises then vertically upward. The vertical portion is secured to the board *n*. The track consists preferably of three wires in order to permit of watching the ascending ball when hurled out of the ballistic device. A strong man may easily drive the ball so high that it would be inconvenient to watch it. Therefore shelves or stops *o* are provided in the board *n* in any convenient number. The wire track and three shelves are shown in vertical section in Fig. 3 and a single shelf is illustrated in horizontal section in Fig. 4. The shelf portion o^1 of the stop *o* is hinged to the tail pin o^2. The hinged portion rests within the board *n* and it is easily understood that the rising ball forces up each shelf portion o^1 in succession until its force is exhausted. The ball then will rest on the shelf right below and the board *n* being provided with numbers allows of reading the relative strength of persons.

On the rear of the board *n* there is mounted a metal rod *p* having stops p^1 which extend into the openings in the board in which the shelves are located. These stops normally rest against the top surface of the openings in the board and keep the shelves in a horizontal position. After the number

on the board n next to the shelf on which the ball rests has been read the ball must be returned into the cannon. This is effected by pushing the rod p by the handle p^2 up whereby the weight of the ball forces the shelf portion downward allowing the ball to return.

The device is operated in substantially the following manner. The person who desires to test his or her strength pulls out the handle d whereby the spring e within the cannon is compressed. The toothed portion of the rod or bar c slides along the stop i and when the person cannot draw the handle any further the stop i prevents the discharge of the cannon until the handle bar k^2 is moved downward whereby the device is released. Thus this device acts as a trigger of a gun. By pulling the rod c out the chain g^3 of the indicator g is pulled inwardly whereby the hand of the indicator is operated. The person may thus read off the strength directly on the dial of the indicator. When the device is released a sound is heard resembling the report of a gun because air is caught between the two disks l^2. By the force of the spring e the ball is hurled out of the cannon and strikes against the shelf portion o^1 of the stop o which rises as shown in the middle portion of Fig. 3. The ball finally falls back on a shelf portion o^1 and rests thereon as shown in the top portion of Fig. 3. Now the number next thereto is read. Upon raising the metal rod p the ball forces the shelf portion o^1 into the position shown in the lower portion of Fig. 3. Finally the ball returns into the cannon and the ballistic device is again ready for operation.

Having thus described my invention I claim as new and desire to secure by Letters Patent.

1. In an apparatus for testing the strength of a person, a ballistic device comprising a wire track ascending vertically, a spring actuated cannon with ball adapted to shoot the ball into the wire track, an indicator on the cannon, a graduated board on which the wire track is mounted, ball retarding shelves or stops within said board, a metal rod for releasing the ball, and a sound producing device on the cannon.

2. In an apparatus for testing the strength of a person, a ballistic device comprising a wire track ascending vertically, a spring actuated cannon with ball adapted to shoot the ball into the wire track, a rod within the spring having a toothed portion and a piston at its inner end to inclose the spring, a vertical stop mounted in the rear portion of the cannon, a lever with handle hinged thereto acting as a trigger, an indicator on the top portion of the cannon, a graduated board on which the wire track is mounted, ball retarding shelves or stops within said board, a metal rod for releasing the ball, and a sound producing device on the cannon.

3. In an apparatus for testing the strength of a person, a ballistic device comprising a wire track ascending vertically, a spring actuated cannon with ball adapted to shoot the ball into the wire track, a trigger device in the lower rear portion of said cannon, an indicator on its top portion, a graduated board on which the wire track is mounted, ball retarding shelves or stops within said board consisting of a tail pin, a shelf portion loosely hinged thereto, a metal rod with stops one for each shelf adapted to release the ball, and a sound producing device on the cannon.

4. In an apparatus for testing the strength of a person, a cannon mounted on a carriage, a rod within same having a toothed portion and a piston loosely fitting the cannon at its inner end, an open cylindrical spring surrounding said rod, a vertical stop in the lower rear portion of the cannon, a lever with handle hinged thereto acting as a trigger, an indicator on the top portion of the cannon in connection with the piston, a handle on the inner rod outside of the cannon and a sounding device between said handle and the rear end of the cannon.

5. In an apparatus for testing the strength of persons a wire track consisting of three wires ascending vertically and having below a flared tube shaped end portion, a graduated board on which said wire track is mounted, ball retarding shelves or stops within said board consisting of a tail pin and a shelf portion loosely hinged thereto, and a wire rod on said board having stops one for each ball retarding device adapted to release the ball.

Signed at New York, N. Y., this 3rd day of December 1907.

CHARLES L. DOBRICK.

Witnesses:
LUDWIG K. BÖHM,
JAMES H. GOGGIN.