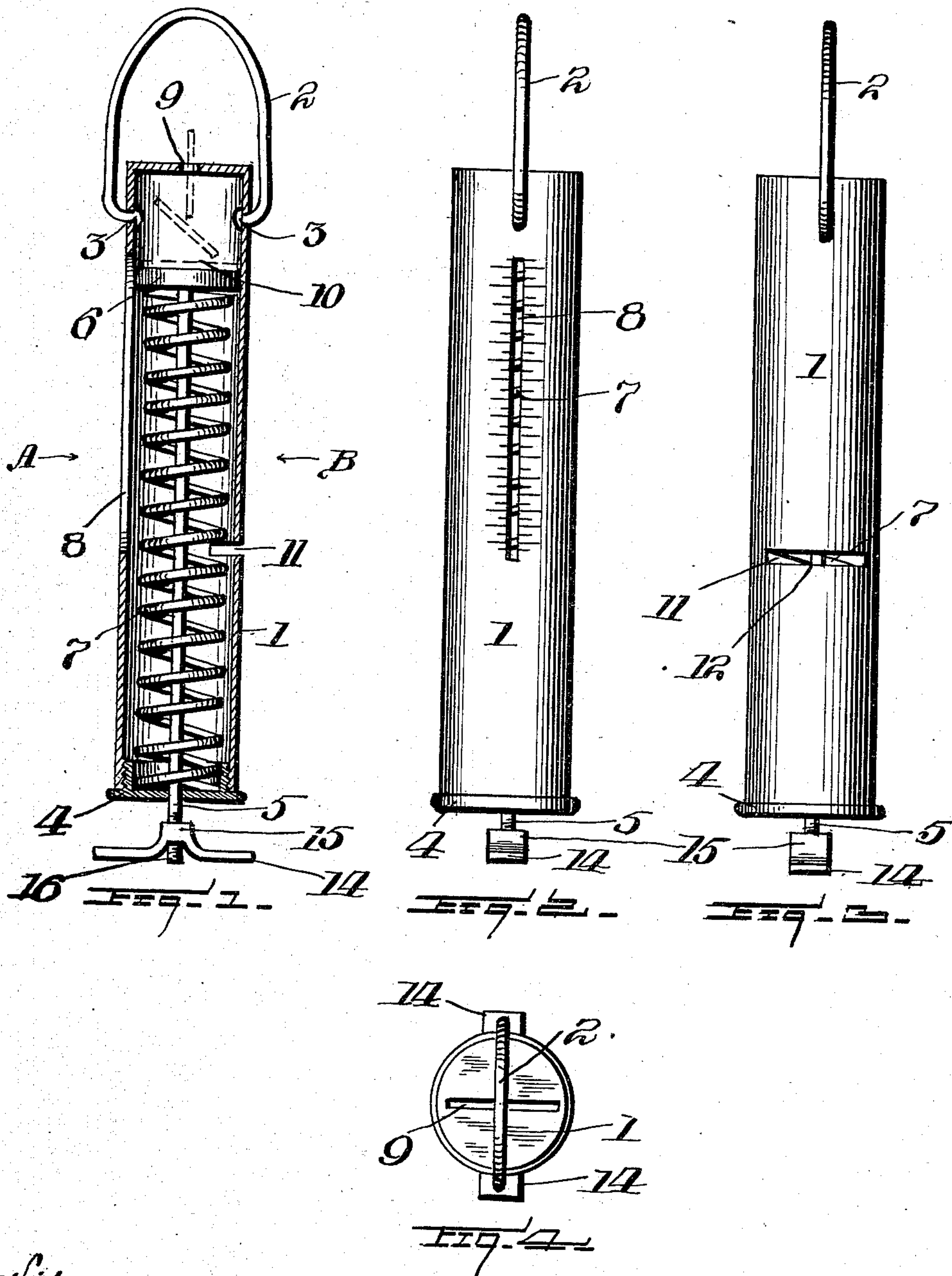


No. 714,477.

Patented Nov. 25, 1902.

H. HAENZE.
STRENGTH TESTING MACHINE.
(Application filed June 12, 1902.)

(No Model.)



Witnesses:
J. M. Dutton
E. C. Potter

Inventor,
Henry Haenze.
By *H. C. Ever* Atorneys

UNITED STATES PATENT OFFICE.

HENRY HAENZE, OF PITTSBURG, PENNSYLVANIA.

STRENGTH-TESTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 714,477, dated November 25, 1902.

Application filed June 12, 1902. Serial No. 111,269. (No model.)

To all whom it may concern:

Be it known that I, HENRY HAENZE, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Strength-Testing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in strength-testing machines, and has for its object a device of this character in which the operator places a coin within the machine and may regain possession of the same in case he has sufficient strength to operate the machine for that purpose.

Briefly described, the invention may be said to consist of a plunger which must be 20 actuated against the pressure of the spring located within the casing, this casing at a predetermined point having an opening therein through which the coin may pass should the operator possess sufficient strength to pull the plunger downwardly in order that the coin 25 may be removed through said opening. The coin of course seats on the plunger and must be inserted into the casing previous to the operation of the device.

30 A further object of the invention is a device of this character which may be cheaply manufactured and may be utilized as a toy or may be employed as a means for livelihood, as well as one which may be simple, economical in construction, and efficient in its use.

35 With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and 40 specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate 45 like parts throughout the several views, in which—

Figure 1 is a central vertical sectional view of the device. Fig. 2 is an elevation thereof looking in the direction of the arrow marked 50 A. Fig. 3 is a similar view looking in the direction of the arrow marked B. Fig. 4 is a top plan view of the device.

In the drawings the numeral 1 indicates a casing formed hollow on its interior and preferably being of equal diameter throughout. 55 To the upper end of the casing is secured a handle 2. The fastening means in this instance consists in passing the ends of the bail through the casing and heading the ends so as to prevent the same from moving, as indicated at 3. The lower end of the casing is 60 threaded at its interior and receives the cap 4, also threaded to engage the threads of the tube or casing. Through this cap extends the rod 5, carrying the head 6 on its upper 65 end, the head movably operating within the interior of the tube or casing 1. A spiral spring 7 encircles the rod 5 and engages between the head 6 thereof and the inner side of the cap 4, this rod tending to secure the 70 plunger-head in position, as shown in Fig. 1. Of course it will be understood that this spring is of very great tension, the strength, or rather the tension, of the same varying according to the amount which the device is 75 to register. Along one side of the casing is provided an elongated vertical slot 8, the casing adjacent to the slot being graduated to readily indicate the number of pounds pulled, according to the varying position of the plunger 80 6. The amount pulled may be readily ascertained by reading the numeral of the graduated scale in alinement with the plunger-head 6. At the upper end of the casing is provided a slot 9 of sufficient size to 85 readily permit of the insertion of the coin, which coin after its insertion will occupy the position of the plunger-head indicated by dotted lines 10 of Fig. 1. The side of the casing is provided with a slot 11, the location of 90 which is determined according to the tensile strength of the spring, and for the purpose of illustration we will say that it requires a pull of fifty pounds on the plunger in order to cause the same to register with the slot 11 95 or rather lie parallel with the lower wall 12 formed thereby, in which event the operator may regain possession of the coin. This plunger may be readily actuated by means of the operating-handle 14, which is so shaped 100 as to conveniently fit two fingers or less on each side of its portion 15, which is interiorly threaded and received on the threaded end 16 on the lower end of the rod 5, per-

mitting the vertical adjustment of the operating-handle, as will be desired. This device is adapted to be in possession of an attendant, who, after the operator having inserted
5 the coin and has failed to sufficiently depress the plunger so as to regain the coin, may remove the coin by the disengagement of the cap and the consequent removal of the plunger and spring, as will be obvious. The ob-
10 ject of the device is to afford a certain amount of amusement to the operator, as well as to be remunerative to the owner or attendant, in which event it is required that a single continuous pull shall be exerted upon the
15 operating-handle, the handle at the opposite end of the casing of course being held within the other hand of the operator and the device caused to assume a vertical position. This device is extremely simple and may be
20 cheaply manufactured, and the possessor of one may cheaply equip himself with any number of springs, whose strength may vary, and these springs may be readily changed and the amusement greatly increased.
25 While I have shown the most practical embodiment of my invention, yet it will be obvious that various changes may be made in the details of construction and combination of parts without departing from the gen-
30 eral spirit and scope of the invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a strength-test machine, the combination of a tubular inclosed casing having a 35 slot formed in one of its ends and a slot formed in the tubular portion extending transversely thereto, a spring-pressed plunger operating in and extending through said casing, a removable handle carried to the end of said 40 spring-pressed plunger, and a bail connected to the opposite end of said tubular casing, substantially as described.

2. In a strength-test machine, the combination of a tubular casing having an elongated slot formed therein and a slot extending transversely thereto, a removable cap secured in one end of said casing and the other end having formed therein a slot, a spring-pressed plunger operating in said casing, 45 means to operate said plunger and a handle secured to said casing, substantially as described. 50

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

HENRY HAENZE.

Witnesses:

JOHN NOLAND,
E. E. POTTER.