(No Model.)

A. ISKE & A. D. SMITH.

STRIKING OR REGISTERING ADVERTISING DEVICE FOR EXERCISING MACHINES.

No. 303,016. Patented Aug. 5, 1884.

Fig. 2.

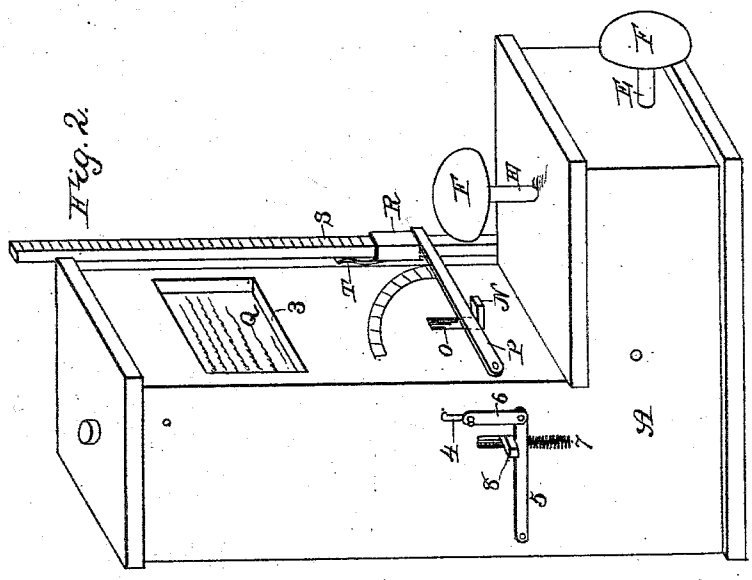
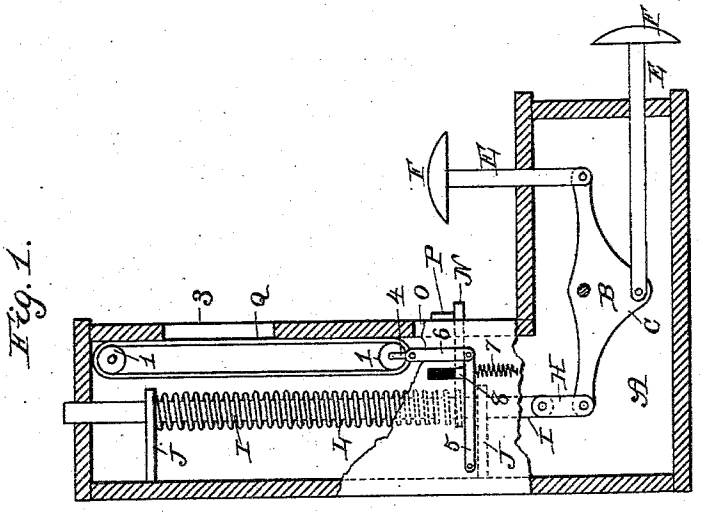


Fig. 1.



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UNITED STATES PATENT OFFICE.

ANTHONY ISKE AND ALBERT D. SMITH, OF LANCASTER, PENNSYLVANIA; SAID ISKE ASSIGNOR TO SAID SMITH.

STRIKING OR REGISTERING ADVERTISING DEVICE FOR EXERCISING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 303,016, dated August 5, 1884.

Application filed September 22, 1883. (No model.)

To all whom it may concern:

Be it known that we, ANTHONY ISKE and A. D. SMITH, of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Striking or Registering Advertising Devices for Exercising-Machines; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in striking or registering machines; and it consists in the combination of a pivoted lever, one or more striking-bolsters which are connected thereto, a vertically-moving rod provided with an arm, a spring that is placed upon the rod, and a registering mechanism, as will be more fully described hereinafter.

The object of our invention is to provide a register which will show in pounds the force of blows given by the fist from either a horizontal or vertical position, and thus indicate how hard or heavy a blow a person can strike.

Figure 1 is a vertical longitudinal section of a machine embodying our invention. Fig. 2 is a perspective of the same.

A represents a suitable inclosing case or frame, which will preferably be made L-shaped, as here shown; but it may be given any other shape or form that may be preferred. Pivoted at or near its center in the lower portion of this frame is the lever B, which has a suitable enlargement, C, formed at the center of its lower edge. To the outer end of this lever and to the enlargement C are pivoted or otherwise loosely connected the sliding rods E, which have suitable striking-bolsters, F, attached to their outer ends. These rods pass outward through the frame at right angles to each other, as shown; but when either striking-bolster is struck or pushed the same motion will be imparted to the pivoted lever B. These bolsters may be of any desired construction, and will be made sufficiently soft so that when struck by the fist or pushed by the hand the hand will not be hurt or injured. The two bolsters are made to extend outward in opposite directions, so that a person can test the strength of their blows from either a vertical or a horizontal position.

To the inner end of the pivoted lever B is secured a connecting link or hinge, H, the upper end of which hinge or link is pivoted or loosely attached to the lower end of the rod I. This rod passes vertically through suitable guides, J, which are placed inside of the frame, and which rod has a spring, L, placed upon it between the upper guide and the actuated lever or device N, which is secured rigidly to it above the lower guide. This rod may have its inner end passed through the top of the vertical portion of the frame; or the frame may be sufficiently high to allow the rod to move vertically within it without any portion of it being shown. The spring which is placed upon the rod will be regulated like the spring of a scale, so that the movement of the rod will always indicate a certain pressure in pounds or fractions thereof. After the rod has been moved upward, the spring instantly forces it back into position again as soon as the parts are free to move. The arm N, which is secured to this vertically-moving rod I, extends through a slot, O, made in the side of the case, and catches against the under side of the pivoted lever P, which extends at right angles across the slot, as shown in Fig. 2. The outer or free end of this lever catches against the lower end of the vertically-moving slide R, which is placed upon the graduated upright S. This upright will be of a height proportionate to the size or capacity of the machine that may be attached to the side of the frame, or to a base upon which the frame is secured, as may be preferred. The slide upon this graduated upright is provided with a small spring, T, which bears against one of the sides of the upright, and which is secured to the slide by means of a set-screw. This set-screw can be adjusted so as to regulate the pressure of the spring against the upright, and thus cause the spring to hold the slide at whatever point it may be moved by the lever, and thus indicate in pounds the force of the blow or push given upon either one of the bolsters. The coiled spring

upon the vertically-moving rod I instantly forces all of the parts back into position again, with the exception of the slide upon the graduated upright, which remains in position so as to show the force of the blow or push. This slide must then be moved down by hand, so that its lower end will again bear against or be near the top edge of the lever.

In order to adapt this machine for use as an advertising device, we provide the mechanism which we are about to describe. At the top and near the bottom of the upward extension of the case, upon the inner side, are pivoted the rollers 1, around which rollers passes the endless apron Q, which may be made of any suitable material. This apron is covered with advertisements, pictures, or any preferable designs. An opening, 3, is made in the case of the same size as one of the advertisements, and through which they may be seen successively as the rollers revolve. The lower roller has a crank, 4, on one of its ends, to which crank a pivoted lever, 5, is connected by a pitman, 6. The pivoted lever 5 is secured to one side of the case, and has an extensile spring, 7, bearing against its lower side. The arm N is provided with a sidewise extension, 8, which projects into the path of the lever 5. When either of the bolsters is struck, as the arm N rises the extensile spring 7 forces the lever 5 upward, which causes the lower roller to rotate through half a circle. As the arm N descends, its side extension, 8, strikes upon the upper side of the lever 5 and forces it downward, thereby causing the lower roller to complete its rotation. The revolution of the lower roller causes the endless apron and the upper roller to move with it, as will be very readily understood, and thus as the machine is operated the pictures or advertisements that are upon the endless apron will be caused to appear in succession before the opening 3.

Having thus described our invention, we claim—

1. In a striking or registering machine, the combination of a lever having attached to its outer end a striking-bolster with a vertically-moving rod, a spring upon the rod, and a registering mechanism, substantially as shown.

2. In a striking or registering machine, the combination of a pivoted lever and a suitable registering mechanism connected to its inner end, with a striking-bolster which is attached to either its outer end or the center of one of its edges, substantially as described.

3. In a striking or registering machine, the combination of a pivoted lever having a registering-machine connected to its inner end, with the two striking-bolsters, which are attached to its end and central edge, and which extend through the case at an angle to each other, substantially as set forth.

4. The combination of the pivoted lever provided with one or more striking-bolsters, a hinge or link, the vertically-moving spring-actuated rod provided with an actuating lever or device, a pivoted lever, a graduated upright, and a slide for moving upon the upright, substantially as specified.

5. In a striking or registering machine, the combination of a lever having a striking-bolster attached to it, a vertically-moving rod, a spring upon the rod, a registering mechanism, and an endless apron having advertisements thereon, or any suitable devices, said apron being passed around suitable rollers, and having suitable mechanism for actuating it when the bolster is struck, substantially as set forth.

6. In a striking or registering machine, the combination of a lever having a striking-bolster attached to it, a vertically-moving rod, a spring upon the rod, a registering mechanism, and an advertising displaying device provided with suitable connecting actuating mechanism, substantially as specified.

7. In a striking or registering machine, the combination of a lever having a striking-bolster attached to it, a vertically-moving rod having a tappet-arm, a spring upon the rod, a registering mechanism, rollers 1, endless apron Q, crank 4, pivoted lever 5, pitman 6, and spring 7, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTHONY ISKE.
ALBERT D. SMITH.

Witnesses:
WM. C. WIMER,
EUGEN CORY.