(No Model.)

S. H. PRATT.

LUNG TESTING TOY.

No. 426,683. Patented Apr. 29, 1890.

Fig. 1.

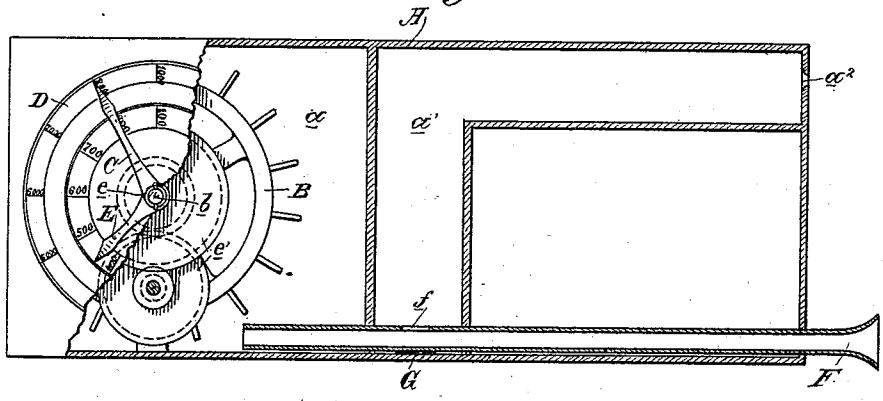
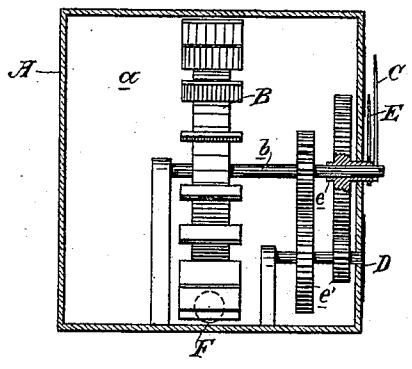


Fig. 2.



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UNITED STATES PATENT OFFICE.

SAMUEL H. PRATT, OF STRAWBERRY VALLEY, CALIFORNIA.

LUNG-TESTING TOY.

SPECIFICATION forming part of Letters Patent No. 426,683, dated April 29, 1890.

Application filed September 6, 1889. Serial No. 323,161. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. PRATT, of Strawberry Valley, in the county of Yuba and State of California, have invented an Improvement in Lung-Testing Toys; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of toys which are adapted to afford amusement by determining the power of the lungs of one who has knowledge of its operation, but wholly failing of result when in the hands of one who may be ignorant of its construction, the object being to create temporary surprise at its failure and thus enhance its interest.

My invention consists in a box or case having a wind-wheel within it and a registering-dial on its exterior with hands for registering the revolutions of the wheel; an axially-movable blow-tube let into the box or case and normally communicating with the wind-wheel, a concealed exhaust-port in said tube, normally closed, but adapted to be opened surreptitiously when the toy is handed to a person having no knowledge of it, and an exhaust-compartment in the box or case into which the exhaust-port opens, whereby the air blown into the tube is misdirected, all of which I shall hereinafter fully describe.

Referring to the accompanying drawings, Figure 1 is a vertical section of my toy. Fig. 2 is a broken cross-section through the wind-wheel chamber.

A is a box or case, which is divided into separate compartments *a* and *a'*, as shown.

In one compartment *a* is mounted the wind-wheel B, the shaft *b* of which extends through the face of the box and carries a hand C, which plays over a dial D on the box. This dial is divided into two rings of graduations, and another hand E is employed—one for each ring—said other hand E being geared down by being mounted on a sleeve *e*, driven by a gear-train *e'* within the box, so that with the two hands the register can run up to any amount practicable.

Let into the box or case is a blow-tube F, which passes through compartment *a'* and into compartment *a*, and has its end just before the blades of the wheel B. This tube is so mounted as to be movable axially, and within compartment *a'* it has an exhaust-port *f*, which, when the tube is in proper position, is turned against and is closed by a suitable washer G, of sponge or felt or other material, on the inner surface of the box; but when turned away from the washer the exhaust-port opens directly into compartment *a'*, which said compartment communicates with the outer air through an aperture a^2.

In using the toy a person understanding it will first turn the blow-tube so that its exhaust-port *f* will be turned to and be closed by the washer G. Then he blows into the tube, and the air coming in contact with the wind-wheel will rotate it, and its movement will be registered on the dial. Thereupon he hands it to another person, but first having secretly turned the tube so that its exhaust-port will move away from the washer G. Now when the second person blows into the tube he will find it wholly or partially inoperative, according to the amount of exhaust, and in his consequent astonishment lies the interest in the toy.

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

1. In a lung-testing toy, a box or case, a wind-wheel within it, and a registering mechanism connected with and operated by the wheel, in combination with a movable blow-tube let into the box and communicating with the wheel, and an exhaust-port in said tube closed in one position of the tube and open in another position, substantially as described.

2. In a lung-testing toy, a box or case, a wind-wheel within it, and a registering mechanism connected with and operated by the wheel, in combination with an axially-movable blow-tube let into the box and communicating with the wheel, an exhaust-port in the tube, a fixed washer for closing said port when the tube is turned to one position, and an exhaust-passage with which the port communicates when the tube is turned to another position, substantially as described.

3. The lung-testing toy, consisting of the box or case having the separate compartments *a* and *a'*, the latter having an aperture a^2 into the outer air, the wind-wheel in compartment *a*, and the registering mechanism

connected with and operated by the wheel, the axially-movable blow-tube let into the box or case and opening before the wheel, the exhaust-port in the tube within compartment a', and the fixed washer in the box or case for closing said exhaust-port, substantially as described.

In witness whereof I have hereunto set my hand.

S. H. PRATT.

Witnesses:
H. A. CONWELL,
JOSIAH YEISLEY.