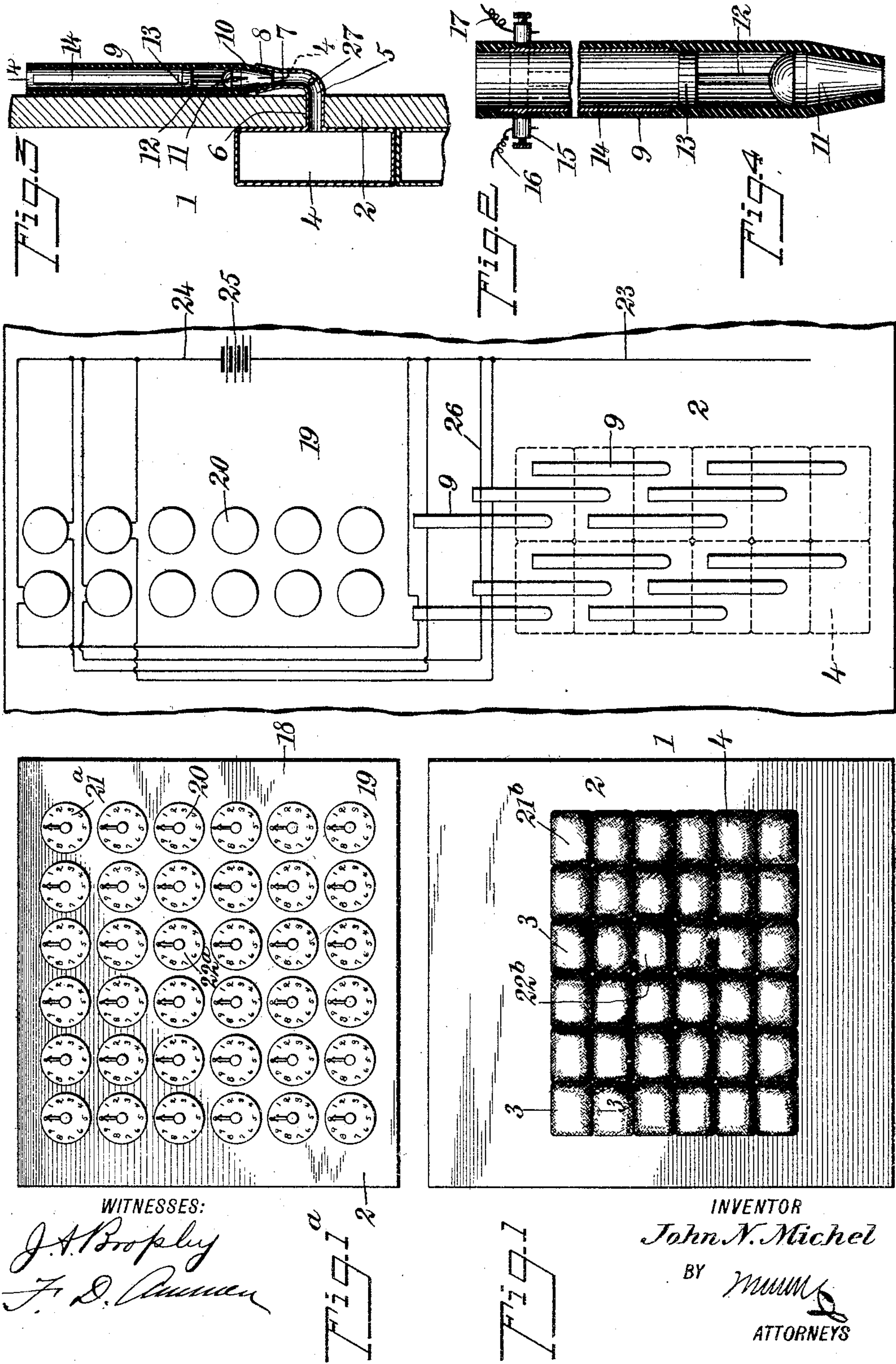


No. 780,896.

PATENTED JAN. 24, 1905.

J. N. MICHEL.
REGISTERING TARGET.
APPLICATION FILED SEPT. 24, 1904.



WITNESSES:
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JOHN NICHOLAS MICHEL, OF NEW YORK, N. Y.

REGISTERING-TARGET.

SPECIFICATION forming part of Letters Patent No. 780,896, dated January 24, 1905.

Application filed September 24, 1904. Serial No. 225,791.

To all whom it may concern:

Be it known that I, JOHN NICHOLAS MICHEL, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Registering-Target, of which the following is a full, clear, and exact description.

This invention relates to targets.

The object of the invention is to produce a target of improved form at which a projectile, such as a ball, may be thrown by hand and to provide in connection with such a target a registering mechanism by means of which the point at which the projectile strikes may be indicated.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the main target or objective target at which the projectile is to be thrown. Fig. 1^a is a similar view representing the face of the registering-target, which indicates the point at which the main target is struck. Fig. 2 is a diagrammatic view representing a rear elevation of a portion of both targets to illustrate the wiring arrangement where electricity is used in connection with the registering mechanism. Fig. 3 is a vertical section taken substantially upon the line 3 3 of Fig. 1 and upon an enlarged scale. Fig. 4 is a vertical section taken substantially upon the line 4 4 of Fig. 3 and upon an enlarged scale. The body of this view is broken away, as will appear.

Referring more particularly to the parts, 1 represents the main target or objective target, and it consists of a board 2 of any suitable form, preferably rectangular, as shown. Upon the forward face of this board and preferably grouped together in rows 3, as shown, a plurality of cushions 4 are arranged. These cushions are preferably of rectangular form, as shown. They are also preferably made of rubber and are hollow, as indicated in Fig. 3.

The elasticity of the rubber operates so that the cushions normally maintain themselves in an inflated or expanded condition, as indicated in Fig. 3. Each of these cushions 4 is provided upon its rear face with a nipple 5, which projects through an opening 6, formed in the board 2. At the rear of the board these nipples 5 have upwardly-turned extensions 7, preferably formed with expanded mouths 8, and in these mouths are seated the lower extremities of tubes 9. These tubes are attached to the back of the board 2 in any suitable manner and are preferably formed of some insulating material, such as hard rubber. The lower portion of each tube 9 is formed into a seat 10 for a movable plug 11, which plug may be displaced upwardly in the tube 9 in a manner which will appear more fully hereinafter. At the upper extremity of each plug a stem 12 is attached, which terminates above in a head 13, which head is preferably of a metal or other good conductor of electricity.

Disposed longitudinally within each tube 9 a pair of conducting-strips 14 are arranged, the same being preferably disposed oppositely, as shown, and provided with suitable binding-posts 15, facilitating the attachment of circuit-wires 16 and 17. As indicated most clearly in Fig. 3, the lower extremities of these contact-strips lie a short distance above the contact-head 13 aforesaid.

A registering-target 18 is provided, and this consists of a board 19 upon the forward face of which a plurality of dials 20 are arranged, the same being disposed in rows and corresponding in arrangement with the cushions 4 upon the objective target 1. Each of the dials 20 is in an electric circuit with the tube 9 of its corresponding cushion in the objective target. Thus the dial 21^a is in circuit with the tube leading from the cushion 21^b and the dial 22^a is in circuit with the tube of the cushion 22^b. From this arrangement it follows that if the circuit through any tube is closed the needle of the dial corresponding to the circuit-tube and cushion will be actuated, so as to indicate which cushion has been struck. Any suitable circuit arrangement may be adopted. In Fig. 2 I have shown an arrangement in which main line-wires 23 and

24 lead from a battery 25, and branches 26 leading therefrom pass in series, respectively, through every dial and contacts of the corresponding cushion.

5 While I have illustrated the objective target and the registering-target upon substantially the same scale, in practice the registering-target would probably be upon a much reduced scale and located close to the point
10 from which the projectile is thrown.

In the operation of the target if any one of the cushions 4 is struck by a ball thrown by the hand it will suddenly collapse under the force of the blow given it and will violently expel the air which it contains, said air rushing out through the nipple 5 and up the tube 9. This sudden exit of the air through the tube 9 operates to throw the plug of that tube vertically into the upper portion of its
20 tube. As soon, however, as the head 13 of this plug comes between the contact-strips 14 a circuit corresponding to the cushion struck is closed, and its corresponding dial indicates which cushion has been struck. It should be
25 apparent that the contact device which each tube constitutes, in connection with its contiguous parts, affords means not only for registering the cushion struck, but also for indicating with some accuracy the force of the
30 blow which is given to the cushion. This result follows from the fact that where the blow given to the cushion is of greater force the plug will rise to a higher point in the contact-tube, and consequently the length of time
35 during which the contact remains closed will be greater.

In order to facilitate the return of the cushions to their normal expanded condition, I provide the nipples 5 each with a small opening 27, which allows air to leak back from the
40 outside into the interior of the cushions; but these openings are so small that they do not materially reduce the force of the outward rush of air through the tubes caused by the sudden deflation of the cushions, as will be
45 readily understood.

The target described is evidently of simple construction and affords means for accurately indicating the point thereof which is struck
50 by a projectile. In practice the target is expected to be most useful as affording means for playing a game with an ordinary base-ball, which will be thrown or "pitched" at the target.

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

1. A target having collapsible cushions, and means operated thereby for indicating the point of the target struck.

60 2. A target having collapsible hollow cushions of normally expanded volume, and means operated by a contraction thereof to indicate the point of the target struck.

3. A target having collapsible cushions,
65 tubes in communication with the interior of

said cushions, movable plugs operated by a current of air in said tubes developed by the collapse of said cushions, and means operated by said plugs for indicating the point of the target struck.

4. A target comprising in combination a plurality of tubes, plugs therein and actuated by a current of air in said tubes, members upon the face of said target the movement whereof may displace said plugs, and registering mechanism actuated by the movement of said plugs.

5. A target comprising an objective target and a registering-target, collapsible cushions disposed upon the face of said objective target, dials disposed upon the face of said registering-target and arranged correspondingly with said cushions, and mechanism operated by the collapse of said cushions for controlling said dials.

6. In a target, in combination, an objective target, a plurality of members disposed upon the face thereof, tubes respectively in connection with said members, means whereby the striking of said members may develop a current of air in said tubes, a registering-target, a plurality of indicators disposed upon the face thereof and arranged to correspond with the arrangement of said members, electrical contact members at said tubes, and electric circuits connecting said tubes respectively with
95 said indicators.

7. A target comprising in combination, an objective target, a member carried thereby and adapted to be struck by a projectile, a pneumatic tube leading from said member, a plug adapted to be displaced by an air-current in said tube, electric contact members adapted to be bridged by a part of said plug, an electric circuit in connection with said contact members, and an indicator in said circuit.

8. In a target, in combination, a member adapted to be struck by a projectile, an electric circuit, an indicator in said circuit, and means for maintaining said circuit closed a time proportional with the force of the blow received by said member.

9. In a target, in combination, an objective target, a member carried upon the face thereof and adapted to be struck by a projectile, a freely-moving member, means whereby said first member may drive said second member upwardly when struck, electric contact-strips disposed adjacent to the path of said moving member and adapted to be bridged thereby, an electric circuit including said contact-strips, and an indicator in said circuit.

10. In a target, in combination, an objective target comprising a board, a plurality of cushions disposed upon said board, pneumatic tubes disposed at the back of said board and communicating respectively with the interiors of said cushions, said tubes being disposed substantially vertically, plugs seating in the lower portions of said tubes and adapted to be driven upwardly by a rush of air therethrough, con-

tact-strips mounted in the sides of said tubes
and adapted to be bridged by said plugs, elec-
tric circuits including said strips, a register-
ing-target, and indicators carried thereby in-
5 cluded in said circuits, said indicators being
arranged to correspond with said cushions.

In testimony whereof I have signed my name

to this specification in the presence of two sub-
scribing witnesses.

JOHN NICHOLAS MICHEL.

Witnesses:

THOS. F. KING,
JAMES McAVEY.