

(No Model.)

3 Sheets—Sheet 1.

M. ULLMAN.
BASE BALL GAME.

No. 476,334.

Patented June 7, 1892.

Fig. 1.

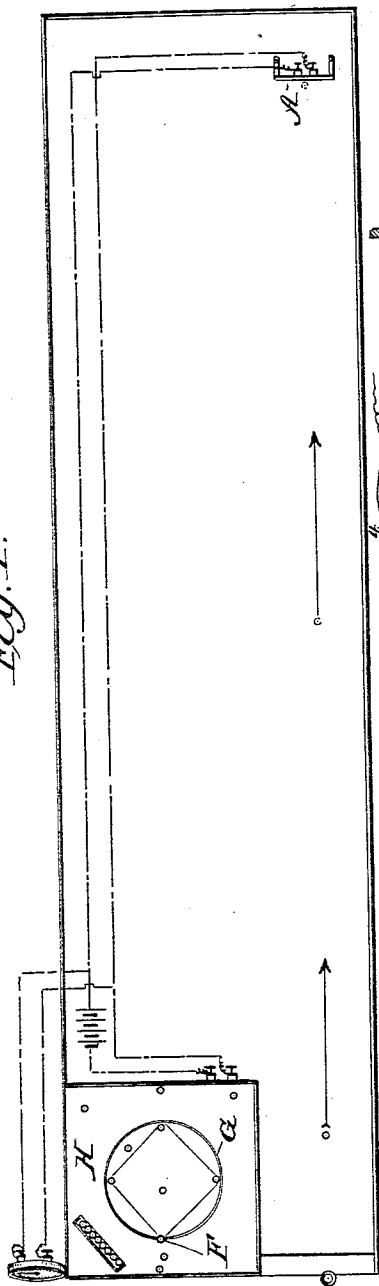


Fig. 3.

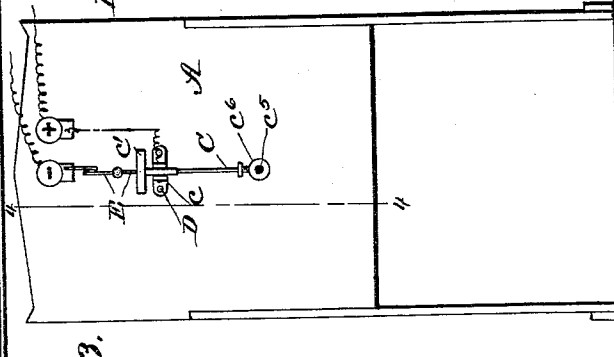
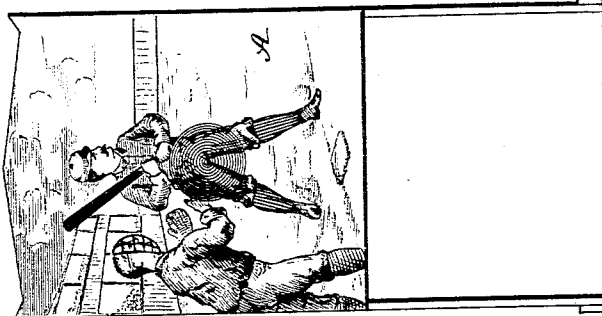


Fig. 2.



WITNESSES:
Fred G. Dietrich
for A. Ryan

INVENTOR:
Morris Ullman
BY *Munn & Co*
ATTORNEYS

(No Model.)

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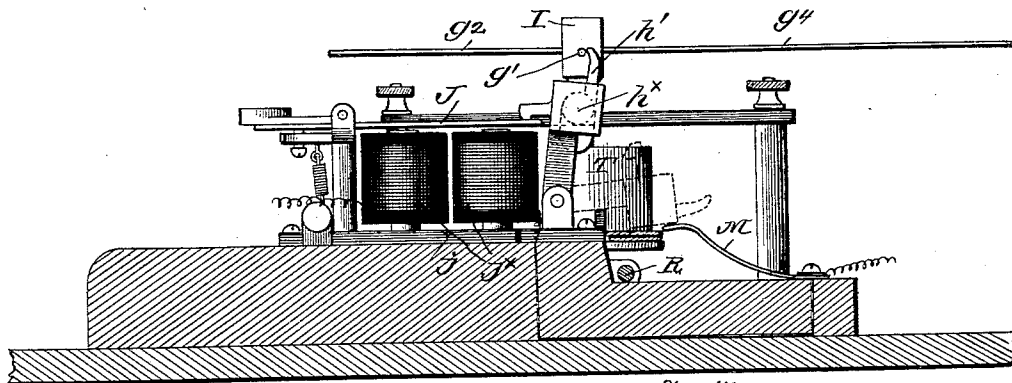


Fig. 5.

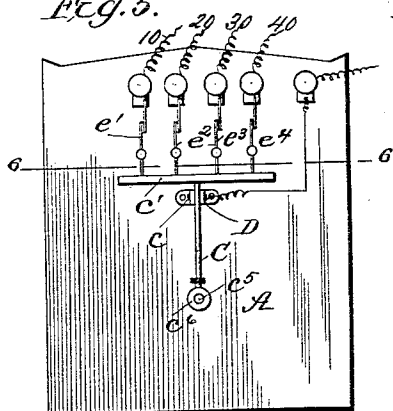


Fig. 10.

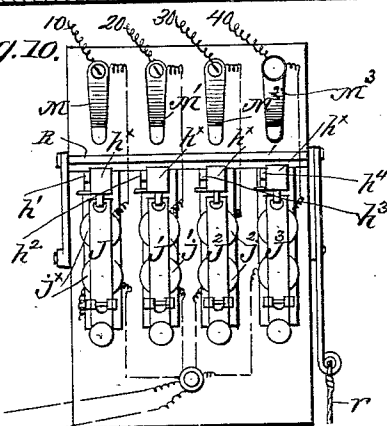


Fig. 9.

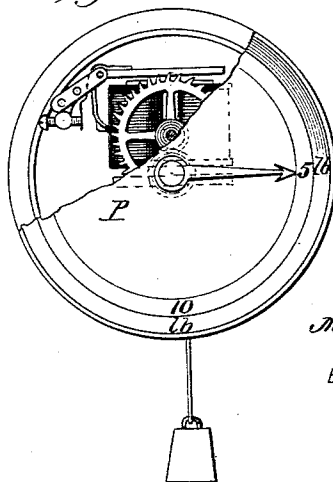
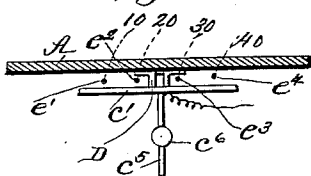


Fig. 6.



WITNESSES:

WITNESSES:
Fred G. Dietrich
Jos. A. Ryan

INVENTOR:

Morris's Ullman.

BY *Mama L*

ATTORNEYS

(No Model.)

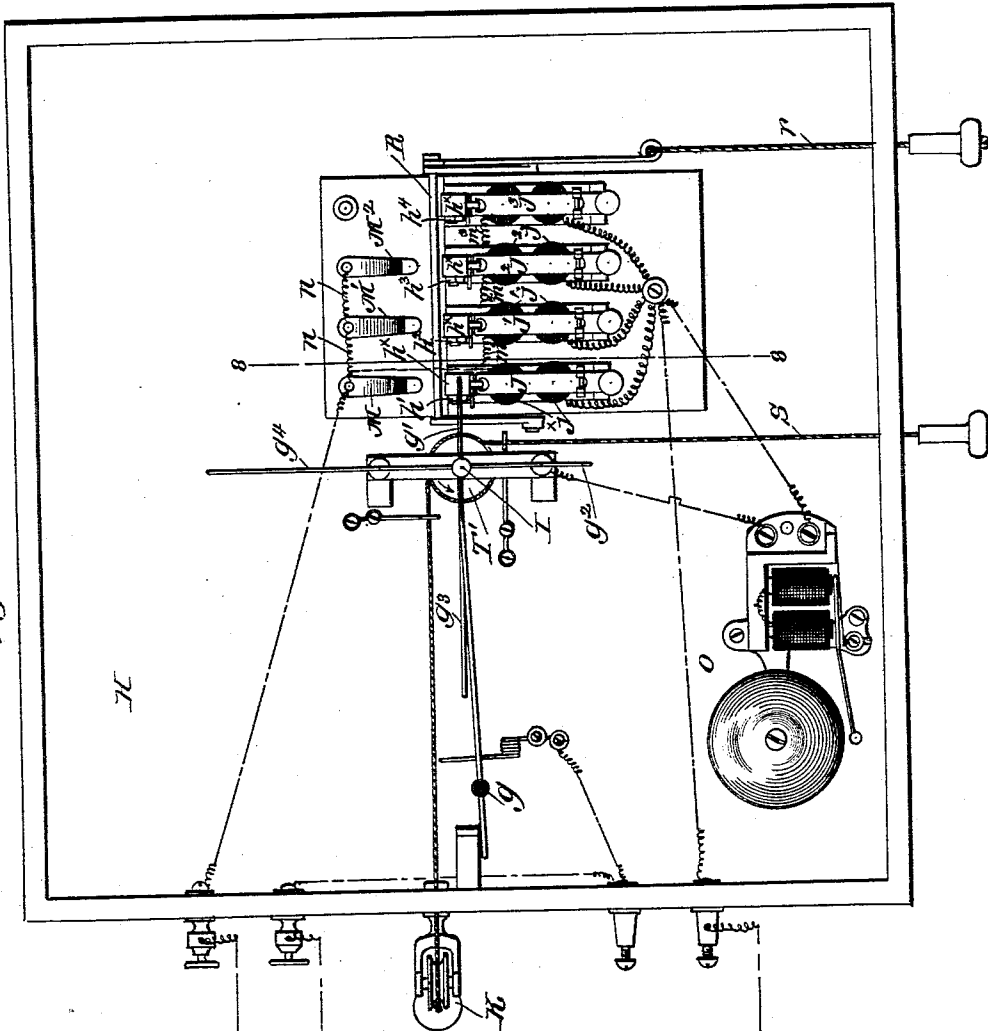
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BASE BALL GAME.

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Fig. 7.



WITNESSES:

Fred G. Dietrich
Joe. A. Ryan

INVENTOR:

Morris Ullman.

BY

Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

MORRIS ULLMAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

BASE-BALL GAME.

SPECIFICATION forming part of Letters Patent No. 476,334, dated June 7, 1892.

Application filed August 14, 1891. Serial No. 432,668. (No model.)

To all whom it may concern:

Be it known that I, MORRIS ULLMAN, residing at Washington city, in the District of Columbia, have invented a new and Improved Base-Ball Game, of which the following is a specification.

My invention relates to an electrically-operated game; and it has for its object to provide a base-ball game which is more particularly adapted for use at summer resorts, excursion-grounds, and other like public places, and which, while affording a means for considerable amusement, will also serve to test the accuracy and strength of the throwing arm of the person playing the game.

My invention consists in an annunciator, an indicator operating thereon for varied degrees of movement, a target or strike member, an electrical circuit connecting such indicator with the target, a contact-maker adapted to be moved to varied degrees by the vibration of the target, such varied degrees of movement of the contact serving to adjust the electrical circuit to operate the indicator to the different degrees of movement stated.

My invention further consists in the peculiar combination and novel arrangement of parts, all of which will hereinafter be fully described in the annexed specification and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a diagrammatic view illustrating my invention. Fig. 2 is a front view of the target. Fig. 3 is a rear view thereof. Fig. 4 is a vertical longitudinal section thereof on line 4 4, Fig. 3. Fig. 5 is a rear view of a modification of the target. Fig. 6 is a horizontal section on the line 6 6, Fig. 5. Fig. 7 is a top view of the annunciator with the top board removed. Fig. 8 is a transverse section thereof on the line 8 8, Fig. 7; and Fig. 9 is a detail view of the dynamometer, hereinafter referred to. Fig. 10 is a top view of the modified arrangement of the circuits in connection with the magnets.

In the practical arrangement of my device I employ a practically-rigid target-frame, to the rear of which is hung a pivoted pendulum or contact member, which is operated by the vibratory impulse of the target caused by the impact of the ball thrown against it, the force

of the throw serving to move the pendulum from the impact-point to different distances or arcs, which when so moved serves to make a contact with an opposite member, whereby to close the electrical circuit, which in turn causes the indicator (which in this instance represents the batter in the game) to move a certain distance, such distance being governed by the force and the accuracy in which the ball strikes the target and the movement of the swinging contact-maker or pendulum.

Referring to the drawings, A indicates the target, which may be of any ornamental shape and upon the striking-board of which may be delineated a center or bull's-eye or a figure of a "batter," as shown. Projected rearward at a point to the rear of the bull's-eye is an impact pin B, which bears against the contact or swinging pendulum C, which is pivoted at *c* in a metal bracket D on the back of the target-board, which is connected with one of the terminals + of the electrical circuit, as shown, the upper end of such pendulum or contact being extended and formed with a transverse member *c'*, which is arranged to normally rest over and out of contact with a yielding member E, which connects with the other terminal of the circuit. It will be noticed that the member E and the pendulum are connected with opposite poles of the battery and which when brought in contact serve to close the circuit.

The annunciator, which is most clearly illustrated in Figs. 7 and 8, consists of a box on the upper face of which is represented a base-ball field, with players and a batter F in their proper positions. The batter, as before stated, serves as an indicator and operates in a slot or way G, formed in the top plate H, being held upon a vertical member *g*, which passes up through such slot, which member is formed on a radial arm *g'*, projected from a central rotatable shaft I, which is also provided with other radial arms *g*² *g*³ *g*⁴ of different lengths, which arms, in connection with arm *g'*, are arranged to engage suitably-arranged weighted stops *h'* *h*² *h*³ *h*⁴, which are normally held in their locked positions by the armatures J J' J² J³.

It will be noticed by referring to Fig. 8 that the weighted stops are pivoted at their lower ends to the base-plates *j* of the armatures in

such a manner that when the contact is closed and the magnet draws the armature down the stop will fall onto the said base-plate. It will be also noticed that by arranging the arms g' , g^2 , g^3 , and g^4 and the stops h' , h^2 , h^3 , and h^4 , as shown, that the indicator is capable of four distinct movements, such movements representing what is known in base-ball parlance as a "single-base hit," a "two-base hit," "three-base hit," and a "four-base" or "home-run." The several magnets are so arranged that they will be successively energized or connected with the main circuit—i. e., should the main circuit be closed and remain closed after the first stop has been dropped and made contact with the spring M. The main circuit would then pass through the said stop into the base of the first magnet j^x and through the connecting-wire m' to the next magnet j' , and operate it to drop its stop, the same operation being repeated with the other magnets and stops should the main circuit remain closed a sufficient length of time to admit of such operation.

The manner in which the magnets and stops operate is as follows: Should the player in throwing at the target strike it near the edge and with but ordinary force, the vibratory impulse would serve to throw the pendulum back to a position shown in dotted lines in Fig. 4, which would make a momentary contact with the plate E, close the circuit and energize the first magnet j^x , draw down the armature J, and thereby release the stop h' , release arm g' , and allow the shaft I to rotate until the arm g^2 strikes the stop h^2 , such shaft being normally rotated in the direction indicated by the arrow 10 by means of a weight K or spring-power. After the first stop h' has been released, its head portion h^x will rest upon a spring-contact M, connected with the main circuit, and upon the metal base of the magnet, which base, as also the bases of the other magnets, are electrically connected by the wires m' , m^2 , m^3 , contact-springs m' and m^2 being arranged for the magnets j' , j^2 , which in turn are electrically connected with each other by the wires n , as shown.

As before stated, the several magnets are arranged to be successively energized, such arrangement being provided for the following purpose.

In the use of this game it is customary to give a player three balls for five cents, with an inducement of a suitable reward should he make a score. Now suppose he throws the first ball with but ordinary force and skill, he would make but a single-base hit—that is to say, the pendulum would stay in contact just long enough to close the circuit and drop the first stop h' , which stop and the plate M and the wire m would now bring the second magnet in a direct connection with the main circuit. Now if the next ball thrown is but of equal force as the first ball, it will vibrate the pendulum or contact in the same degree as before, making, as it were, an instantaneous cir-

cuit, which in this instance would serve to energize the second magnet and drop the second stop h^2 , and allow the shaft, with the indicator or batter, to advance another or single base, the operation being repeated by balls thrown with equal force against the target until the batter reach the fourth or home base.

The operation, so far as described, sets forth how the batter reaches home by the successive single-base hits. I will now describe how it is possible for him to make a two-bagger or home-run.

Should a ball be thrown near the bull's-eye of the target and with considerable force, the vibratory impulse imparted to the pendulum would cause it to swing up to a position shown by dotted lines X, making a contact with the plate E, which is maintained in the rise and fall of such pendulum. This movement of the pendulum causes not only the first magnet to become energized to drop the stop, but, owing to its continued contact, maintains the circuit, which is then transmitted to the second magnet in the manner before stated, permitting the second stop h^2 to fall; but before such stop h^2 will seat itself to its corresponding contact-spring M' the pendulum will have resumed its normal position and the circuit broken. This double operation of the stops admits of the batter or indicator making a double or two-base hit movement on the annunciator plate or frame. Throwing the ball at the target with a very great force and striking the bull's-eye will cause the pendulum or contact to swing up to such an extent as to maintain a circuit long enough to cause all the stops to fall and to allow of a complete circuit of the batter making, as it were, a home run.

O indicates an electric alarm-bell connected with the main circuit, which is arranged to be rung when the batter or indicator makes a complete circuit.

As an additional novelty and means for indicating the force with which the ball is thrown against the target, I arrange in the main circuit a dynamometer P, of any well-known construction, the detent or restraining pawl of which is automatically held out of connection with the indicator-spindle gearing so long as the circuit is closed. Should a ball be thrown against the target with a weak force, the circuit would be but momentary, thus allowing for but a slight rotation of the indicator-arm, say, to represent 5 pounds; but should the ball be thrown with a sufficient force to make a home-run, the circuit remaining closed for some time would hold the pawl out of engagement and allow the indicator-arm on the dynamometer to pass around, say, to twenty or thirty pounds on the scale, and so on.

While I prefer to use but a single main-circuit wire and one spring contact-plate E, I may, if desired, use four contact-pieces, as clearly shown in Figs. 5 and 6, by reference to which it will be seen the four contacts e' e^2

e^3 e^4 are arranged at different distances from the transverse member c of the pendulum contact C, which member in this instance is extended laterally over the said pieces e' e^2 e^3 e^4 in the manner most clearly shown in Fig. 5. When the contacts e' , e^2 , e^3 , and e^4 are employed, a separate circuit-wire is used for each magnet, the contact e' being electrically connected by a wire 10 with the first magnet j^x , the contacts e^2 e^3 by wires 20 and 30 with the magnets j' j^2 , and the contact e^4 with the last magnet by the wire 40. The spring-plates M, M', M', and M² in this arrangement serve as rests for the stops h^4 when dropped.

To regulate the force required to swing the pendulum contact, I provide it with an extension e^5 , on which is held to slide a weight c^6 , which when adjusted outward will increase the weight of such pendulum and thereby necessitate an increased vibration of the target to raise it to the height necessary to maintain a continued electric circuit.

R indicates a pivoted bail, with which connects a pull rod or cord r , which extends to the outside of the annunciator-casing, such bail being arranged to throw one or all of the stops up into locked position with the armatures. A similar operating-cord S, which connects with the drum T' on the shaft I, when pulled outward will bring the indicator or batter back to its normal position.

I desire it understood that I do not limit myself to the exact details of mechanism shown, as these may be varied without departing from my invention. I also wish it understood that while I have not so shown them, the several figures which represent the different ball-players in the field may be electrically connected with the main electrical circuit and arranged to be moved about by the closing of the circuit.

While I prefer to operate the annunciator by a closed circuit, it is manifest that it may be operated by an open circuit, and instead of employing a pendulum-contact, as stated, a circuit-breaking device may be employed, which is arranged to be operated to hold the circuit broken different durations of time, according to the power of force applied. Such device might be in the nature of a push-button spring-actuated, which is normally held closed, but arranged to fly back by the impact of the ball or other power.

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

1. An electrically-operated game comprising an annunciator having an indicator arranged for variable degrees of movement, an electro-magnetic device arranged when operated to govern the variable movement of the indicator, a target having a contact-maker moved by the vibratory impulse of the target to an extent proportionate to the force of impact, and an electrical circuit connecting the target and the electro-magnetic device, substantially as and for the purpose described.

2. An electrically-operated game comprising an indicator arranged for variable degrees of movement, an electro-magnetic device arranged when operated to govern the variable movements of the indicator, a target having a contact-maker moved to an extent proportionate to the force of impact, said contact-maker being adjustable, whereby to require a greater or less impulse from the target to operate it, and an electric circuit connecting the electro-magnetic device and the target, all arranged as and for the purposes described.

3. An electrical game comprising an annunciator having an indicator arranged for varied movements, electro-magnetic devices for operating said indicator, as stated, a target or strike portion having a substantially rigid face, a pendulum contact-maker supported thereon, adapted to be swung to an extent proportionate to the force of impact against the target, and an electric circuit connecting the target and the electro-magnetic devices, said circuit adapted to be held closed different durations of time by the varied movements of the contact-maker, substantially as and for the purpose described.

4. The combination, with a target or strike portion and a contact-maker operated to close a circuit by the vibratory impulse of the target, of an annunciator having a top plate formed with an open way, a rotatable shaft carrying an indicator held to travel in such way, means for rotating such shaft, substantially as shown, a series of stops for limiting the indicator, a series of armatures and magnets for locking the stops, and an electrical circuit connecting the first magnet and the target, said magnets arranged to be successively brought into the circuit after the preceding magnet has been energized and its respective stop released, as and for the purpose described.

5. The combination, with the target or strike portion and the pendulum contact, of a rotatable shaft, the movable indicator held thereon, a series of weighted stops for limiting the movement of the indicator, a series of magnets and armatures, the armatures normally locking such stops, an electric circuit connecting the magnets and the target, the wires m m' m^2 , and a series of spring switch-plates M M' M², said magnets, stop-plates M M' M², and wires m' m^2 m^3 arranged as shown, whereby the magnets will be successively connected with the main circuit by the released stop of the preceding magnet, substantially as and for the purpose described.

6. The combination of the annunciator, the movable indicator, means for moving it in one direction, a series of magnets and armatures, a series of stops for limiting the movement of the indicator, such stops held locked by the armatures, a series of electric circuits connected with the magnets, a strike portion or target having a substantially-rigid face, a swinging contact-maker having a bearing portion, and a series of yielding contacts arranged

to be successively engaged by the bearing portion of the contact-maker, whereby to successively operate the several magnets and stops to allow the indicator to move, as and
5 for the purpose described.

7. An electrical game comprising an annunciator having an indicator adapted for varied degrees of movement and held from movement by stops, magnets arranged to release such stops when energized, a substantially rigid strike member or target, a contact-maker operated by the vibratory impulse
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of the target, an electric circuit connecting the target and magnets in the annunciator, and a dynamometer in such circuit arranged to be operated by the closing of the circuit by the contact-maker and to register the force or continuance of the closed circuit, substantially as and for the purpose described. 15

MORRIS ULLMAN.

Witnesses:

FRED G. DIETERICH,
SOLON C. KEMON.