

W. E. PORTER & D. J. HURLEY.

GAME WATCH.

APPLICATION FILED JULY 22, 1904.

2 SHEETS—SHEET 1.

Fig. 1

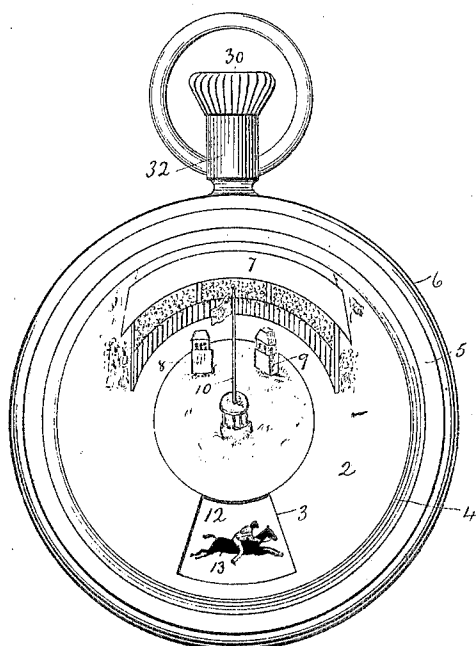


Fig. 2

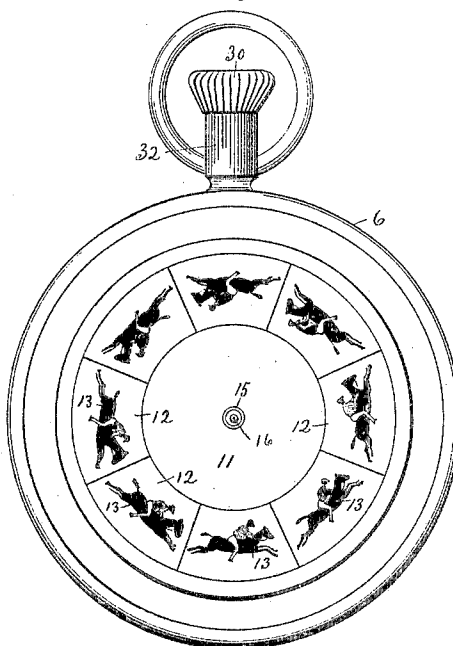


Fig. 3

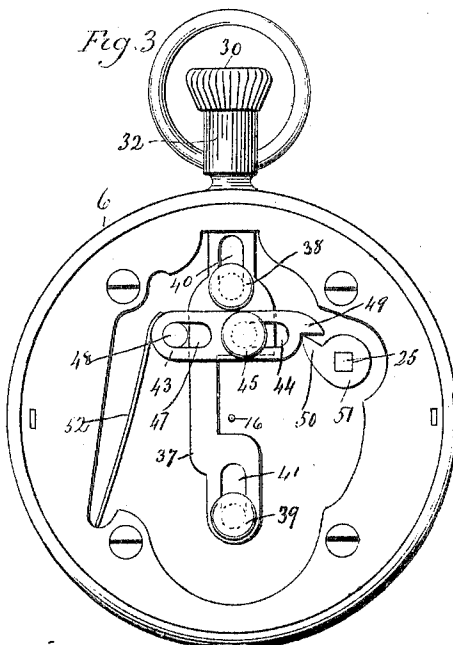
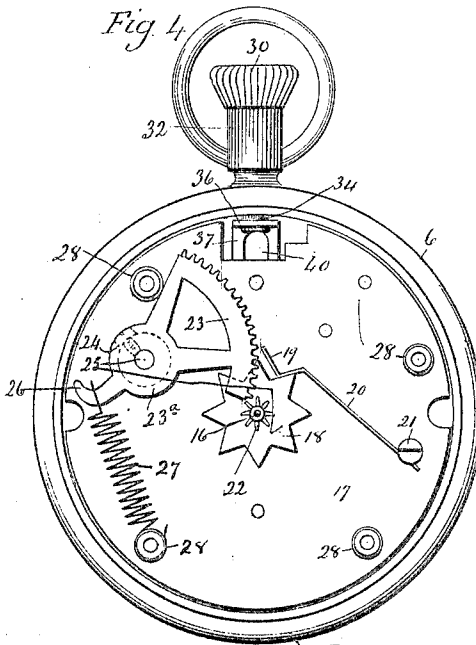


Fig. 4



Witness.
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Fig. 5

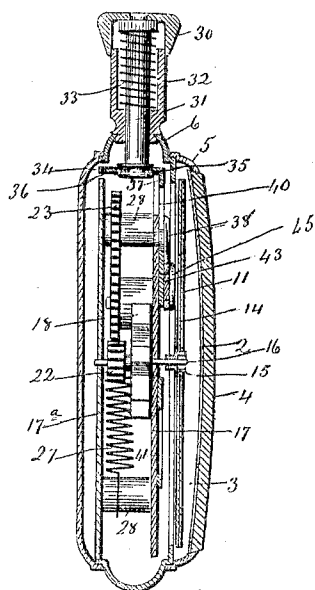


Fig. 11

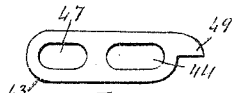


Fig. 12

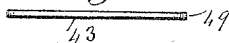


Fig. 6

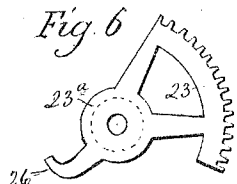


Fig. 7

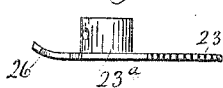


Fig. 8

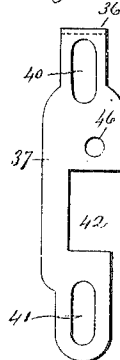


Fig. 9

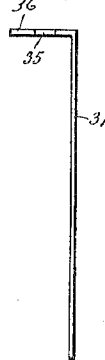
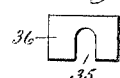


Fig. 10



Witnesses.
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UNITED STATES PATENT OFFICE.

WILSON E. PORTER AND DANIEL J. HURLEY, OF NEW HAVEN,
CONNECTICUT.

GAME-WATCH.

No. 802,782.

Specification of Letters Patent.

Patented Oct. 24, 1905.

Application filed July 22, 1904. Serial No. 217,661.

To all whom it may concern:

Be it known that we, WILSON E. PORTER and DANIEL J. HURLEY, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Game-Watches; and we do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in front elevation of a game-watch embodying our invention; Fig. 2, a similar view with the bezel, crystal, and fixed dial removed; Fig. 3, a similar view with the spinning dial removed, as well as the bezel, crystal, and fixed dial; Fig. 4, a view of the watch in rear elevation with the back-cap removed; Fig. 5, a view of the watch in vertical central section, showing the movement in elevation; Fig. 6, a detached plan view of the oscillating rack-frame; Fig. 7, an edge or top view thereof; Fig. 8, a detached view, in rear elevation, of the push-bar; Fig. 9, an edge view thereof; Fig. 10, a plan view thereof; Fig. 11, a detached plan view of the swinging and sliding pawl; Fig. 12, an edge view thereof.

Our invention relates to an improvement in that class of mechanical toys or games which involve the element of chance, and more particularly to a game device having the general form and appearance of a stem-winding watch, the object being to produce at a low cost for manufacture a simple, durable, neat, and attractive device for use in playing games of chance.

With these ends in view our invention consists in a game-watch having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In carrying out our invention as herein shown we employ a fixed dial 2, formed with a display-opening 3 located directly below its center. This dial may be made of paper, celluloid, or any other suitable material and is located directly back of the watch-crystal 4, which is mounted in a bezel 5, secured to the case-center 6 in the usual manner. As shown, the said dial is applied directly to the inner face of the crystal; but it may be secured in place in any other convenient way. The outer

or exposed face of the dial contains the pictorial representation of a race-track containing a grand-stand 7, judges' boxes 8 and 9, and a flagstaff 10. These pictorial details will, however, be varied according to the character of the game to be played.

Directly back of the fixed dial 2 we locate a spinning dial 11, virtually corresponding to it in diameter and having its outer face divided into compartments 12, practically corresponding in size to the display-opening 3 of the fixed dial. These two dials practically correspond in size to the dial of an ordinary watch and, like such a dial, are arranged concentrically with the case-center 6, and hence with the watchcase, of which the case-center 70 forms the main part. As shown, the spinning dial 11 is divided into eight compartments; but this number may be varied as desired. To carry out the idea of the race-track pictured upon the fixed dial 2, the compartments 12 of the spinning dial 11 are occupied by representations of race-horses 13, each ridden by a jockey. It is intended that these horses shall be differentiated from each other—as, for instance, by jockeys wearing jackets and caps of different colors. The spinning dial 11 is by preference made of paper and mounted upon a dial-plate 14, having a centrally-arranged hub or bushing 15, frictionally held upon a spinning arbor 16, mounted in the front and rear movement-plates 17 and 17^a and corresponding to the center arbor of a watch-movement.

Upon the spinning arbor 16 we mount a star-shaped stop-wheel 18, located between the front and rear movement-plates 17 and 17^a and engaged by an elbow 19, formed by suitably bending the free end of a light spring or detent 20, attached by a screw-stud 21 to the front movement-plate 17. This wheel 18 is formed, as shown, with eight teeth to conform to the number of compartments 12 in the spinning dial 11 and is fixed upon the spinning arbor 16 in such relation to the said compartments that when the elbow 19 of the spring-detent 20 is entered into the space between any two of its teeth the spinning dial 11 will be stopped with one of its compartments registered with the display-opening 3 in the fixed dial 2. The spinning dial 11 will therefore always be brought to rest with one of its compartments registered with the display-opening 3 in the fixed dial.

The spinning arbor 16 is spun for spinning the spinning dial 11 by its provision with a small pinion 22, which for that purpose is meshed into by a segmental rack 23, formed on an oscillating rack-frame 23^a, secured by a set-screw 24 to an oscillating post 25, journaled in the front movement-plate 17. The rack-frame 23^a is furnished with a hook 26 for the attachment of one end of a spiral dial-spinning spring 27, the other end of which is secured, as shown, to one of the four pillars 28, by means of which the front movement-plate 17 and the rear movement-plate 17^a are secured together. Normally the lower end of the rack 23 is cleared from the pinion 22, leaving the spinning dial free, except as it is held against rotation by the spring-detent 20. To spin the dial, the rack-frame 23^a is oscillated against the tension of the spring 27 by means of a crown 30, secured to the outer end of a push-pin or plunger 31, mounted for longitudinal movement in the hollow stem 32 of the usual pendant secured to the case-center 6. A spiral spring 33, encircling the push-pin 31 and located within the hollow stem 32, retracts the pin after it has been pushed inward. At its inner end the stem 31 is furnished with a grooved coupling-head 34, which is entered into an open-ended slot 35, formed in a coupling-arm 36, bent at a right angle to the upper end of a flat sheet-metal push-bar 37, located in line with the said push-bar 31, sliding upon the front or outer face of the front movement-plate 17 and secured in place and guided by pins 38 and 39, having large flat heads and passed through slots 40 and 41, respectively, formed in the upper and lower ends of the said bar, which is centrally cut away to form a clearance-space 42 for the spinning arbor 16. The said push-bar 37 operates a transversely-arranged swinging and sliding or compound-movement pawl 43 bearing upon its front face. This pawl is formed near its outer end with a longitudinal slot 44, receiving a flat-headed pin 45, entering a hole 46 formed for its reception in the push-bar 37, whereby the pawl is connected with the push-bar, so as to be operated thereby and still free to move transversely independent thereof. At its inner end the pawl is formed with a slot 47, receiving a pin 48, mounted in the front movement-plate 17, the pawl turning upon this pin as upon a pivot. At its outer end the pawl is formed with a nose 49, adapted to be engaged with the nose 50 of a cam 51, mounted upon the squared outer end of the oscillating post 25, before mentioned. A spring 52, mounted in the front movement-plate 17, engages with the inner end of the pawl 43 and exerts a constant effort to move the same from left to right, which it does after the pawl has been forced from left to right transversely across the push-bar during the upward movement thereof when the rounded or cam-like upper edge of the nose 49 of the pawl is riding over

the rounded lower edge of the nose 50 of the cam 51.

With regard now to the operation of the device, it will be understood that the spinning dial 11 is normally held stationary by the entrance of the elbow 19 of the spring-detent 20 into one of the spaces between the teeth of the star-like stop-wheel 18. To "play the game," the dial is spun by inward pressure of the thumb or finger upon the crown 30, whereby the push-pin 31 is pushed inward against the tension of the spring 33. This causes the push-bar 37 to be moved downward and the pawl 43 to be swung upon the pin 45. When the pawl is so swung, its nose 49 will operate upon the nose 50 of the cam 51 to turn the post 25, whereby the rack 23 will be engaged with the pinion 22 and the spinning dial 11 reversely rotated against the very slight tension of the spring-detent 20. At the same time the dial-spinning spring 27 will be placed under tension. Just before the push-bar and pawl reach the limit of their downward movement the nose 49 of the pawl will pass over the nose 50 of the cam 51, whereby the rack-frame 23^a will be automatically tripped and released to the full power of the spring 29, which will swiftly swing the rack-frame in the opposite direction and start the dial 11, which will spin until the impulse imparted to it in this way has been so reduced by gravity and friction that it can be stopped in one of its eight positions by the slight power of the spring-detent 20. Now when pressure upon the crown 30 is relieved the spring 33 will act to lift the draw-bar into its normal position. During the upward movement of the draw-bar the upper edge of the nose 49 of the pawl 43 will engage with and ride over the lower edge of the nose 50 of the cam 51, and the pawl will be pushed from right to left against the tension of its spring 52 until the point of the nose 49 clears the point of the nose 50, when the spring 52 will reassert itself and quickly shoot the pawl from left to right into its normal position, in which it is shown in Fig. 3. As the spring 27 is "let off," so to speak, for spinning the dial 11 near the end of the downward movement of the push-bar the operation of the device is beyond the control of the operator, who cannot affect it or "fake" it. He must push the crown inwardly sufficiently to put the spring 27 under tension and to automatically let it off. After that it makes no difference how or when he removes the pressure of his thumb or finger from the crown 30. It will also be noted that the spring is freshly energized every time the dial is spun rather than being wound up and then let off little by little by successively pushing in upon the crown.

While we have shown our device as embodied in a watch reproducing in a way features of a race-track, it is obvious that the pic-

torial character of the fixed dial may be changed altogether and that the horses on the spinning dial may be replaced by figures, numbers, colors, or any character of any description. It is also apparent that in carrying out our invention some changes from the construction herein shown and described may be made. We would therefore have it understood that we do not limit ourselves thereto, but hold ourselves at liberty to make such departures therefrom as fairly fall within the spirit and scope of our invention.

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

1. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spinning dial arranged concentrically within the case, and an automatically-released spring-actuated dial-spinning mechanism including a push-bar located in line with the said push-pin.

2. In a game-watch, the combination with a case having a pendant, a push-pin located in the said pendant, a spinning dial arranged concentrically within the said case, and a spring-actuated dial-spinning mechanism a member of which is formed with an open-ended slot for the reception of the said push-pin which is thus detachably connected with the said mechanism.

3. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spinning dial, and a spring-actuated dial-spinning mechanism comprising a push-bar located in line with the said push-pin and formed at the end adjacent thereto with a slotted arm for the reception of the said pin, whereby the said mechanism is detachably connected with the said pin.

4. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spinning dial, a push-bar operated by the said push-pin which is detachably connected with it, a spring-actuated rack and pinion connected with the spinning dial, and connection between the rack and pinion and the push-bar by means of which they are operated.

5. In a game-watch, the combination with a case having a pendant, of a push-pin located therein, a spinning dial, a push-bar located in line with the said push-pin with which it is detachably connected, a spring-actuated rack and pinion, and connection between the said

bar and rack and pinion including a sliding swinging pawl.

6. In a game-watch, the combination with a case having a pendant, of a push-pin located therein, a spinning dial, a push-bar arranged in line with the said push-pin and detachably connected therewith, a spring-actuated rack and pinion connected with the spinning dial, a sliding and swinging pawl connected with the push-bar for operation thereby, an oscillating post carrying the said rack, and a cam carried by the said post and coacting with the nose of the said pawl.

7. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spinning dial, a push-bar located in line with the push-pin and detachably connected therewith, a pawl operated by the said push-bar, a cam coacting with the said pawl, a post carrying the said cam and oscillated thereby, a spring-actuated rack connected with the said post, and a pinion carried by the dial and meshed into by the said rack which is normally disengaged from it.

8. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spinning dial, a push-bar detachably connected with the said push-pin, a spring-actuated rack operated by the said bar, a pinion carried by the dial and meshed into by the said rack from which it is normally disengaged, a stop-wheel connected with the said dial, and means coacting with said wheel for stopping the dial.

9. In a game-watch, the combination with a case having a pendant, of a push-pin located in the said pendant, a spring located in the pendant for maintaining the said pin in its outwardly-projecting or normal position, a spinning dial, a push-bar detachably connected with the said push-pin, a spring-actuated rack and pinion connected with the dial for spinning the same, and connection between the push-bar and the said rack the spring of which is placed under tension by the inward movement of the said push-pin against the tension of its own spring.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

WILSON E. PORTER.
DANIEL J. HURLEY.

Witnesses:

HARRIET E. SINCLAIR,
EDWARD DANN.