

J. PAULY.
GAME COUNTER.

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979,997.

Patented Dec. 27, 1910.

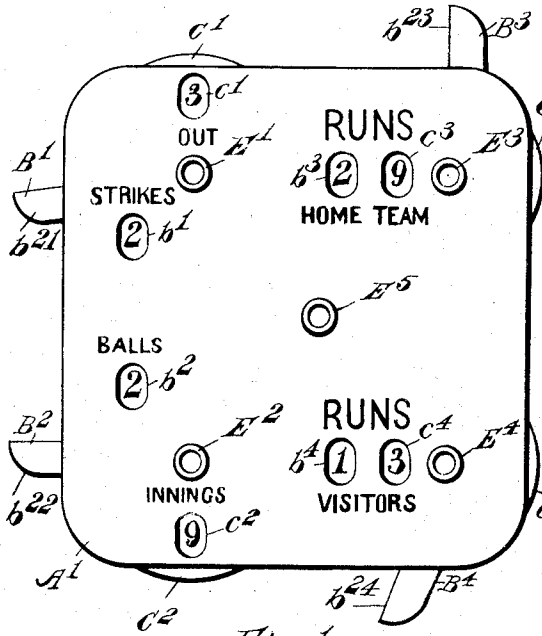


Fig. 1.

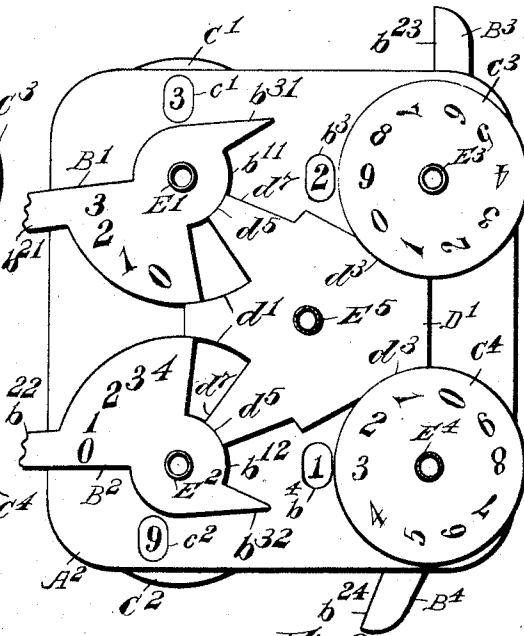


Fig. 2.

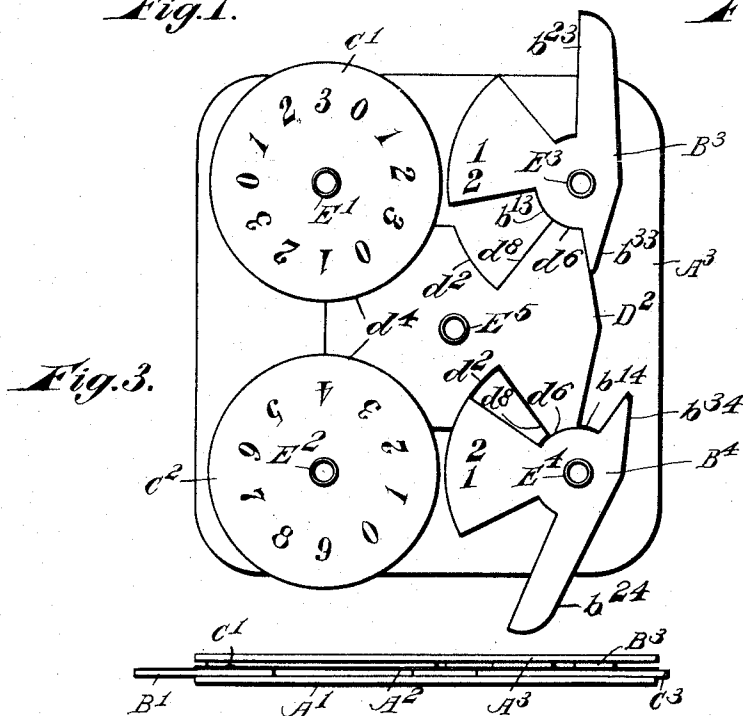


Fig. 3.



Fig. 4.

WITNESSES:

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GAME-COUNTER.

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To all whom it may concern:

Be it known that I, JOHN PAULY, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Game-Counters, of which the following is a specification.

This invention relates to game-counters and in the drawings is represented as adapted for keeping the scores of games of baseball, by independently registering balls, strikes, outs, innings and runs. The same devices however may be used for registering other events by merely varying the numbers on the moving parts and the names on the frame-plates.

The object of the invention is to furnish a counter of convenient size to be carried in the pocket, to insure accuracy by preventing over-registration or accidental movement of the moving parts.

Said invention consists in the construction, devices and combinations hereinafter described and claimed.

In the accompanying drawing, Figure 1 is a front elevation of my improved game-counter; Fig. 2, a front elevation of the same with the front frame-plate removed, showing the middle-plate and the parts arranged between said front plate and the middle plate; Fig. 3, a front elevation of the rear frame-plate and the parts which occupy the space between said plate and the middle plate; Fig. 4, a plan of said game-counter.

The frame consists of three plates A^1 A^2 A^3 which are preferably of the same size and shape, as rectangles with rounded corners, as shown and exactly superimposed. The middle plate A^2 serves mainly to divide the space between the other plates into separate compartments and also serves to confine the moving parts hereinafter described in the same planes with their stops and friction brakes.

The outer frame-plates A^1 A^3 are separated from the middle plate A^2 by the movable indicating or registering parts B^1 B^2 B^3 B^4 and C^1 C^2 C^3 C^4 and by the friction-brake and stop-pieces D^1 D^2 and all the

frame plates are united by rivets E^1 E^2 E^3 E^4 which for likeness and facility of attachment are preferably tubular rivets or eyelets and are so represented in the drawings and which also serve as pivots for said movable parts. Another similar rivet E^5 is driven through the frame-plates and through the pieces D^1 D^2 near the middle of said plates, to prevent movement of said pieces and to hold the frame-plates against said pieces which assist in preserving the proper intervals between said plates.

On each of the rivets E^1 E^2 E^3 E^4 are pivoted as registering segment B^1 B^2 B^3 or B^4 and a registering disk C^1 C^2 C^3 or C^4 , the registering parts on the same rivet or eyelet being separated by the middle plate A^2 , to prevent either from being turned by frictional contact with the other when the latter is turned. This arrangement lessens the labor on the device and therefore its cost, and enables it to occupy much less space. The registering disks are arranged to project beyond the frame-plate in order that they may be turned by the friction of the fingers.

It is desirable that the movable registering parts should be as small as consistent with legibility of the figures carried by them and I have accordingly shown only the ten digits on any wheel. It is also necessary in some cases that two figures should be displayed in the same horizontal line to indicate ten or a greater number, as where the runs in a base-ball game are to be registered and the number of runs exceeds nine. In such cases the figures indicating units are marked on the disk C^3 C^4 and the figures indicating tens on a segment B^3 B^4 of larger radius, said disk and segment being concentric with each other, to enable the two figures to be brought into the same horizontal line. Obviously if a disk of the same radius was substituted for the segment, it would project beyond the other concentric disk and would interfere with the manipulation of the latter.

As will hereinafter appear the segment proper never projects beyond the frame-plate, but is provided with an arm or handle b^{21} b^{22} b^{23} b^{24} which projects from the frame.

of the counter on a different side than that from which the corresponding disk projects, in order that the handle of the segment may not interfere with the manipulation of said disk.

The indicating figures on the disk and segments are arranged in rows concentric with the pivots of said disks and segments. The figures can be seen through sight-openings $c^1 c^2 c^3 c^4 b^1 b^2 b^3 b^4$, there being one sight-opening for each segment and one for each disk and the sight-openings through which the figures on those registering parts which are back of the plate A^2 are cut through said plate A^2 and through the front plate A^1 , the other sight-openings being merely cut through the front plate.

The friction-brake and stop-pieces $D^1 D^2$ are alike in function but differ in shape owing to the difference in position of the front segments $B^1 B^2$ from the position of the rear segments $B^3 B^4$. Each piece D^1 or D^2 has concave surfaces d^1 or d^2 which fit the outer convex edges of the segments of the same compartment and other concave surfaces d^3 or d^4 which fit the circumferences of the disks of the same compartment and by friction tend to prevent the accidental turning of said segments and disks. The segments are also provided with other concentric convex arc-shaped edges $b^{11} b^{12} b^{13} b^{14}$ which bear with friction against other concave arc-shaped edges $d^5 d^6$ on the pieces $D^1 D^2$ as a further safeguard against such accidental turning.

The pieces $D^1 D^2$ are prevented from turning on the eyelet E^5 by the disks and segments. As a further precaution against the accidental turning of the disks and segments and the movement of the pieces $D^1 D^2$ the front and rear plates $A^1 A^3$ should be drawn by the rivets or eyelets into close enough contact with the segments and disks to create considerable friction. The movement of each segment in either direction is limited by a stop-projection $d^7 d^8$ which projects from the stop-piece $D^1 D^2$ and against which a side of the segment proper strikes when moving in one direction, a stop-finger $b^{31} b^{32} b^{33} b^{34}$ on said segment striking the other side of said projection $d^7 d^8$ when the segment reaches its limit in the other direction.

The frame, disks and segments may be of any suitable sheets or plates, as wood, metal, thick paper of good quality, celluloid or other material.

Where the counter is used to keep the score of base-ball games, the highest figure (3) on the segment B^1 may be dispensed with and on the next strike the disk C^1 may be advanced one point and said segment be returned to zero (0) because three strikes puts the player out. In the same way the figure 4 may be omitted from segment C^2 because the fourth ball allows the player to

take first base and the segment may be returned to zero for the next man at bat.

I claim as my invention:—

1. The combination of a frame having separate compartments, a disk arranged in one of said compartments and having an annular row of figures, a segment arranged in the other of said compartments and having an arc-shaped row of figures, said disk, segment and row of figures being arranged concentrically with each other, said disk and segment being adapted to be rotated independently of each other and said frame having sight-openings through which said figures may be seen.

2. The combination of a frame having separate compartments, a disk arranged in one of said compartments and having an annular row of figures, a segment arranged in the other of said compartments and having an arc-shaped row of figures, said disk, segment and row of figures being arranged concentrically with each other and said segment having a longer radius than said disk and the figures on said segment being arranged beyond the circumference of said disk, said disk and segment being adapted to be rotated independently of each other and said frame having sight-openings through which said figures may be seen.

3. The combination of a frame having separate compartments, a disk arranged in one of said compartments and having an annular row of figures, a segment arranged in the other of said compartments and having an arc-shaped row of figures, said disk, segment and rows of figures being arranged concentrically with each other, the margin of said disk projecting through one side of said frame and said segment having an arm or handle which projects through another side of said frame to enable said disk and segment to be rotated independently with each other, said frame having sight-openings through which said figures may be seen.

4. The combination of a frame having separate compartments, a disk arranged in one of said compartments and having an annular row of figures, a segment arranged in the other of said compartments and having an arc-shaped row of figures, said disk, segment and row of figures being arranged concentrically with each other, said disk and segment being adapted to be rotated independently of each other and said frame having sight-openings through which said figures may be seen and brakes arranged to bear upon said disk and segment to prevent the accidental turning of the same.

5. The combination of a frame having separate compartments, a disk arranged in one of said compartments and having an annular row of figures, a segment arranged in the other of said compartments and having an arc-shaped row of figures, said disk, seg-

ment and row of figures being arranged concentrically with each other, said disk and segment being adapted to be rotated independently of each other and said frame having sight-openings through which said figures may be seen, a stationary stop-piece having a stop-projection and said segment having stop-surfaces on opposite sides of said projection to limit the movement of said segment.

In witness whereof, I have affixed my signature in presence of two witnesses.

JOHN PAULY.

Witnesses:

ALBERT M. MOORE,

WILLIAM F. CURTIN.