No. 881,926. PATENTED MAR. 17, 1908.

H. G. HOSE.

GAME COUNTER AND THE LIKE.

APPLICATION FILED FEB. 11, 1907.

Fig. 1.

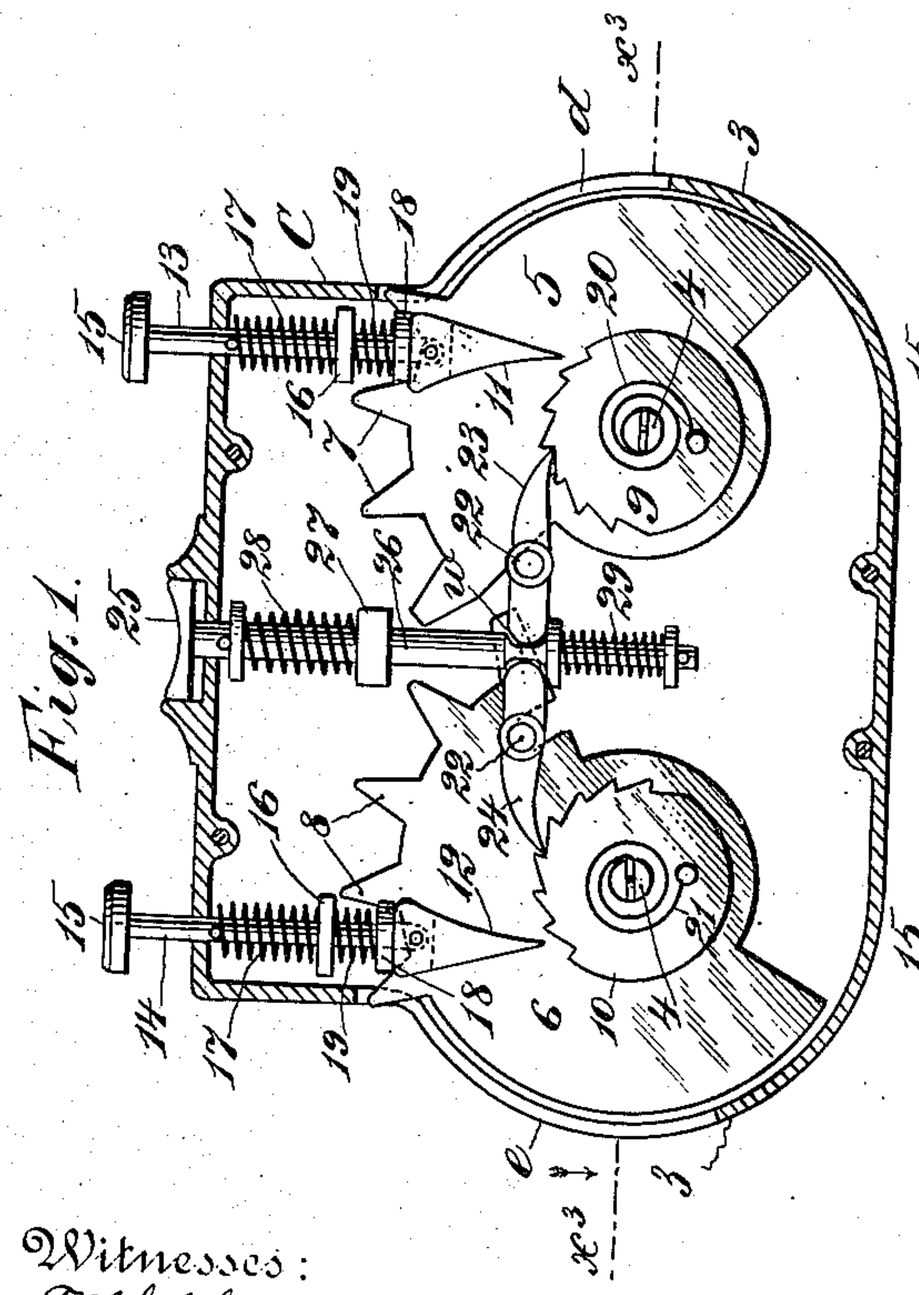


Fig. 2.

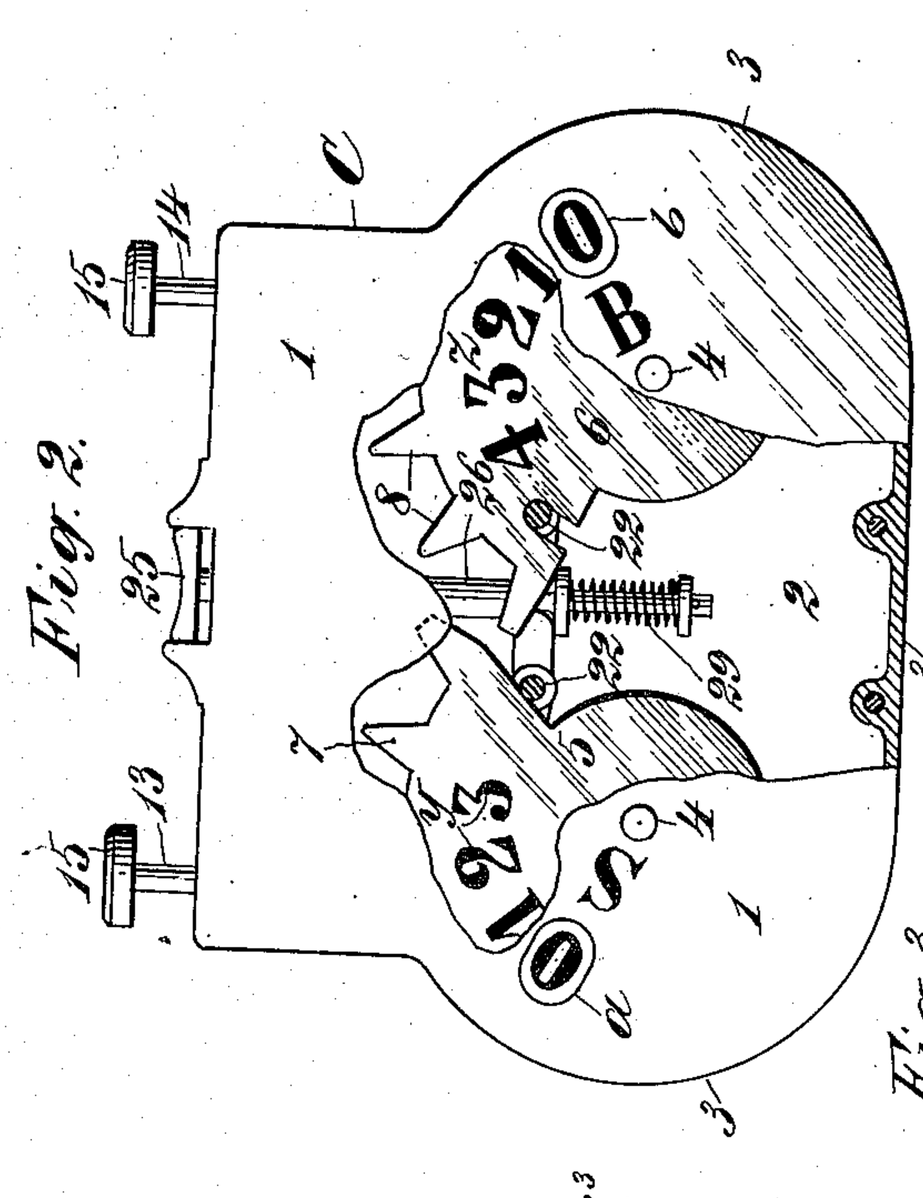


Fig. 3.

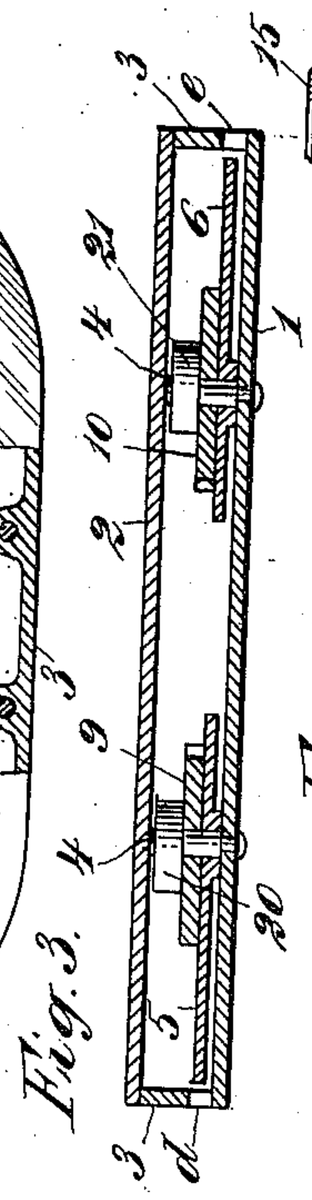


Fig. 4.

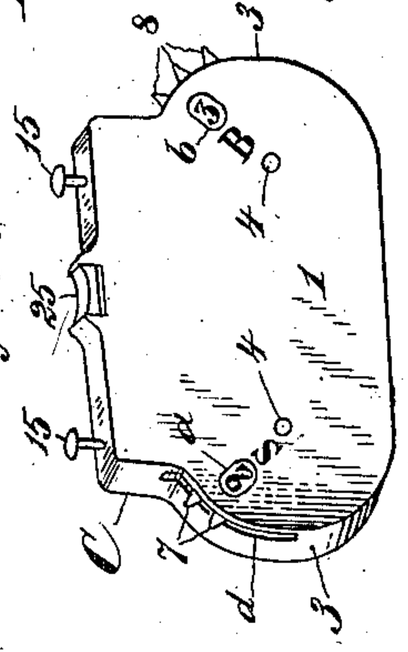


Fig. 5.

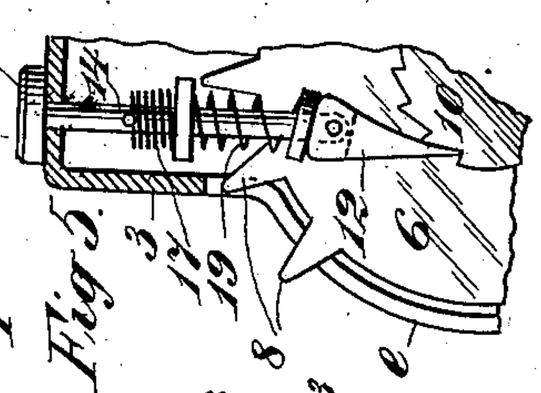


Fig. 6.

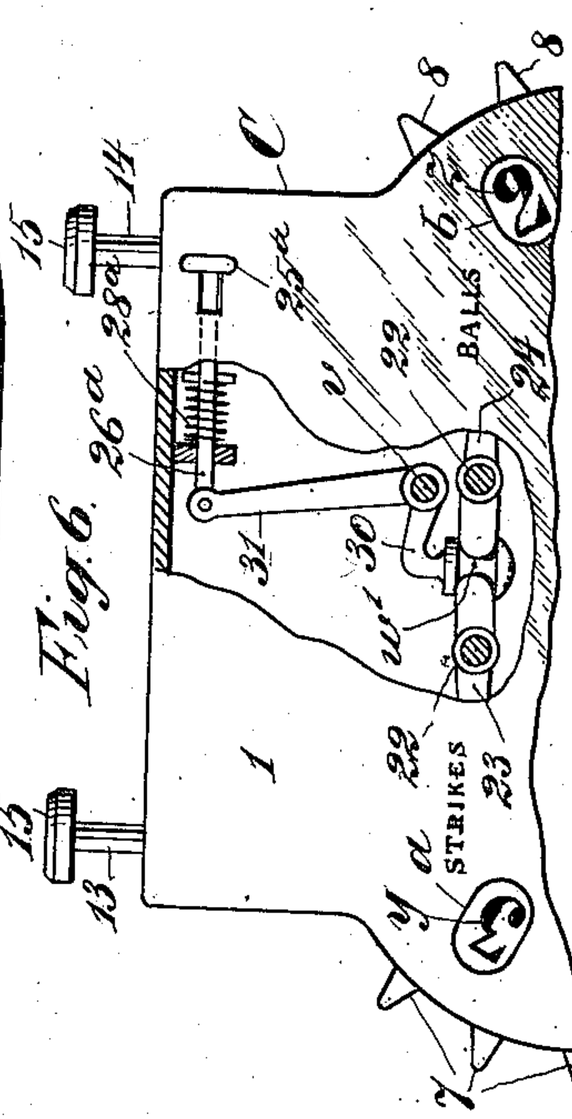
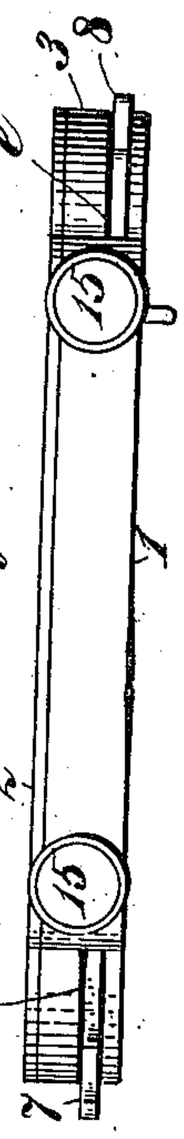


Fig. 7.



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GAME-COUNTER AND THE LIKE.

No. 881,926. Specification of Letters Patent. Patented March 17, 1908.

Application filed February 11, 1907. Serial No. 356,844.

To all whom it may concern:

Be it known that I, HENRY G. HOSE, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings, in the city and State of New York, have invented certain new and useful Improvements in Game-Counters and the Like, of which the following is a specification.

This invention relates to the class of devices adapted to be carried in the hand of the umpire, at a game of base-ball, for example, for registering "balls" and "strikes"; and one of the features of the invention resides in the means for operating the two counting wheels or disks independently, combined with means for setting both wheels instantly back to zero by pressure on a button.

Another important feature of the invention is the means whereby the umpire may note the number of "balls" or "strikes" registered either by sight or by touch.

In the accompanying drawings, which illustrate an embodiment of the invention—Figure 1 is a rear view of the mechanism of the instrument, the inclosing casing being in section. Fig. 2 is a front elevation of the instrument, with a part of the front-plate of the casing broken away to disclose the interior. Fig. 3 is a horizontal section taken substantially at line x^3 in Fig. 1. Fig. 4 is a perspective view of the instrument on a relatively small scale. Fig. 5 is a fragmentary view showing the pawl and ratchet device. Figs. 6 and 7 illustrate a modified form of the let-off mechanism; the former being a front elevation and the latter a plan.

Referring primarily to the first four figures of the drawing—C designates, as a whole, the casing or box to contain the operative mechanism of the instrument. This casing may be of metal, and of such size and shape as to be conveniently grasped in the hand.

1 is the front-plate of the casing; 2, the back-plate thereof which may be removable; and 3 the narrow side-wall, which may be integral with the front-plate, or not, as preferred.

Within the casing are rotatively mounted, on studs 4, two disks 5 and 6, the former (called herein the "strike" disk) having on its edge three teeth 7, and on its face the numerals 0, 1, 2, 3, seen at *y* in Fig. 2; and the latter (called herein the "ball" disk) having on its edge four teeth 8, and on its face the numerals 0, 1, 2, 3, 4, seen at *z* in Fig. 2. In the front plate of the casing are two sight apertures *a* and *b*, at which the numerals on the respective disks 5 and 6 become visible, successively, as the disks are rotated step by step; and in the side-wall 3 are slots *d* and *e*, through which the respective teeth 7 and 8 protrude, successively, as the respective disks 5 and 6, bearing said teeth, are rotated step by step.

In order to rotate the disks 5 and 6 independently and each, step by step, as required, the respective disks have fixed to them, concentrically, ratchet wheels 9 and 10 (Fig 1); and with the teeth on these respective wheels engage, for rotating the latter step by step, pawls 11 and 12, pivotally secured, respectively, to the lower ends of upright, slidable stems 13 and 14. As these pawl devices are alike, it will suffice to say that in each the stem is provided with a button 15 at its upper or outer end; that it is guided in the casing and in a bracket 16, and has a retracting spring 17. The pawl is flattened at its upper end where it is pivotally attached to the stem, and it has a loose washer 18, and a spring 19, to hold it alined yieldingly with the sliding stem. This last described construction is required to enable the pawl to swing laterally in operating the ratchet wheel, as seen in Fig. 5.

It will be convenient to explain the operation as far as described. When the umpire wishes to register a "strike" he presses on the button 15 connected operatively with the "strike" disk 5, and the pawl 11 advances the disk one tooth of the ratchet-wheel 9, where it is held by means to be described. The numeral "1" will now appear at the sight aperture *a*, and one tooth 7 will protrude at the slot *d*, where it may be felt by the finger of the umpire. A second pressure on the same button 15 causes the numeral "2" to appear at the sight-aperture *a*, and two teeth 7 may be felt at the slot *d*. For "balls", the other button 15 is pressed, and the number of "balls" registered in the same manner.

It remains to be explained how both of the disks 5 and 6 may be instantly set back to zero, simultaneously, by simply pressing a button. At the respective axial studs 4 about which the disks 5 and 6, and their ratchet-wheels 9 and 10 turn, are disposed, respectively, volute springs 20 and 21, so disposed as to be wound up, or put under tension, when the ratchet-wheels are turned by

their respective pawls 11 and 12; and mounted to rock, respectively, on studs 22 in the casing, are two like lever-pawls 23 and 24, the former being a stop-pawl for the ratchet-wheel 9 and the latter a stop-pawl for the ratchet-wheel 10. There is a button or head 25, on the outer end of an upright slidable stem 26, guided in the casing and in a bracket 27, and on this stem is a retracting spring 28. The heels or inner arms of the pawls 23 and 24 are rounded and engage, at opposite sides of the stem 26, a recess formed in the same (at *w* in Fig. 1), whereby, when the stem is depressed the shoulder formed on the stem by said recess will act to simultaneously rock the lever-pawls and disengage their operative ends from the teeth of the two ratchet wheels, and thus permit the volute springs thereof to instantly rotate the disks 5 and 6 back to zero. When the disks are thus rotated back they strike limiting stops; and in the present instance the studs 22 are utilized as such stops. It may be explained that in order to hold the stop-pawls in yielding engagement with the teeth of their respective ratchet-wheels, there is a spring 29 on a prolongation of the stem 26, which effects this object.

When the disks 5 and 6 are moved forward step by step, by means of the pawls 11 and 12, this forward movement is limited in extent by the engagement of the first tooth on the disk with the end of the slot in which the teeth play. Any forms of limiting stops may, however, be used.

The let-off device last described is operated by means of a button or head 25 on the top or upper edge of the casing, and disposed between the two buttons 15. This arrangement is not, however, essential.

Figs. 6 and 7 show how the operating head or button—whatever its form may be—can be placed on the face of the casing, and the let-off be effected by displacing said button or piece laterally. In these figures, the rounded heels or inner arms of the pawls 23 and 24 engage a connecting piece w^1 on the short arm 30 of an elbow-lever fulcrumed in the casing at *v*. The longer arm, 31, of this lever is coupled at its upper end to a horizontally disposed slidable rod 26^a, provided with a retracting spring 28^a, and to this rod is attached a thumb-piece 25^a, which is exterior to the casing and connected with said rod through a slot in the face-plate of the casing.

Obviously the present invention is not restricted to the precise construction of the device as herein shown. The invention includes in its scope one of the indicating disks provided with the two indicating means, namely, the numerals at the sight-aperture, and the teeth protruding from the slot in the casing. For the game of base-ball the "strike" will have but three teeth and three significant numerals as indicating devices, while the "ball" disk will have four of each.

Having thus described my invention, I claim—

1. In a device of the character described, the combination with a casing provided with openings, of a revoluble wheel or disk within said casing; means for imparting a step-by-step motion to said wheel or disk; means for moving said wheel or disk back to its initial position; means for holding said wheel or disk against such backward rotation, and means for disengaging said last mentioned holding means; said wheel or disk having thereon devices adapted to indicate to the sight and also to the touch the number of steps which said wheel or disk has been moved.

2. An instrument for purposes such as those specified, having a casing provided with a sight-aperture and a slot, a disk rotatively mounted in said casing, said disk having on it numerals adapted to appear successively at said sight-aperture and an equal number of teeth which are adapted to protrude successively at said slot, when the disk is rotated, a pawl and ratchet mechanism for advancing said disk step by step, a spring for rotating said disk back to zero, a stop-pawl for holding the disk against back rotation, and means for disengaging said stop-pawl.

3. In a device of the character described, the combination with a casing provided with openings, of a plurality of revoluble wheels or disks within said casing; means for imparting a step-by-step motion to each of said wheels or disks separately; means for moving said wheels or disks back to their initial positions; means for holding said wheels or disks against such backward rotation; and means for disengaging said last mentioned holding means; each of said wheels or disks having thereon devices adapted to indicate to the sight and also to the touch the number of steps which said wheel or disk has been moved.

4. An instrument for the purpose specified, having an inclosing casing a plurality of disks rotatively mounted therein and provided with means for indicating the extent of their step by step rotation, said means consisting of numerals adapted to appear successively at said sight aperture and an equal number of teeth which are adapted to protrude successively at said slot, when the disks are rotated, pawl and ratchet mechanism for imparting to each disk, independently of the other, a forward step by step rotation, springs for rotating the respective disks back to zero, spring stop-pawls which hold the respective disks against back rotation, a slidable stem which projects out of the casing and which is operatively connected with both of said stop-pawls for disengaging

them simultaneously when said stem is pushed in, and a spring which retracts said stem when pressure is removed therefrom.

5. An instrument for the purpose specified, having a casing provided with sight-apertures *a* and *b*, and slots *d* and *e*, indicator disks 5 and 6 rotatively mounted in the casing, said disks being provided on their faces with indicating numerals adapted to be brought opposite to the respective sight-apertures successively by intermittent forward rotation of said disks, and provided on their respective edges with indicator teeth adapted to be protruded successively at the respective slots in the casing by intermittent forward rotation of the disks, volute springs which tend to rotate the respective disks backward, pawl and ratchet mechanisms for imparting to the respective disks a step by step forward rotation, each of said mechanisms comprising a slidable stem which projects out of the casing, a retracting spring, for said stem, a spring pawl pivotally attached to the inner end of the stem, and a ratchet-wheel fixed to the indicator disk, the teeth of which are in position to be engaged by said pawl when the said stem is pushed in, stop-pawls to prevent back rotation of the respective ratchet wheels, and means, operatable from outside of the casing for releasing both of said stop-pawls simultaneously.

6. An instrument for the purpose specified, having a casing, a plurality of indicator disks 5 and 6 rotatably mounted therein, said disks being provided with numerals adapted to appear successively at said sight aperture and an equal number of teeth which are adapted to protrude successively at said slot, when the disk is rotated, a ratchet-wheel fixed to each indicator disk, a spring for rotating each disk back to zero, means for rotating each disk forward intermittently, lever stop-pawls 23 and 24, engaging the teeth of the respective ratchet wheels, a slidable stem 26, which projects out of the casing and is provided at its outer end with a button or thumb-piece 25, a retracting spring 28 for said stem which latter has a recess *w* engaged by arms on the lever stop-pawls, and a spring 29 under the said arms of the pawls.

7. In a device of the character described, adapted to be held within and operated by one hand, the combination with a casing provided with an opening *b;* of a revoluble wheel or disk 6; means for imparting a step-by-step motion to said wheel or disk, comprising a push rod 14 provided with a pivoted pawl 12 and springs 17 and 19; a spring 21 for moving said wheel or disk back to its initial position; means for holding said wheel or disk against such backward rotation, comprising a pawl 24 and a spring 29; a push rod 26 for disengaging said pawl 24, and a spring 28 for resisting the operation of the push rod 26; said wheel or disk 6 being provided with numerals *z* adapted to appear successively at said sight aperture.

8. In a device of the character described, adapted to be held within and operated by one hand, the combination with a casing provided with openings *a b;* of revoluble wheels or disks 5, 6; means for imparting a step-by-step motion to said wheels or disks comprising push rods 13, 14, provided with pivoted pawls 11, 12 and springs 17, 19; springs 20, 21, for moving said wheels or disks back to their initial positions; means for holding said wheels or disks against such backward rotation, comprising pawls, 23, 24, and a spring 29, a push rod 26 for disengaging said pawls 23, 24, and a spring 28 for resisting the operation of the push rod 26; said wheels or disks 5, 6, being provided with numerals *y z*, adapted to appear successively at said sight apertures.

In witness whereof I have hereunto signed my name this 7th day of February 1907, in the presence of two subscribing witnesses.

HENRY G. HOSE.

Witnesses:

FRANS W. WIMAN,

WILLIAM J. FIRTH.