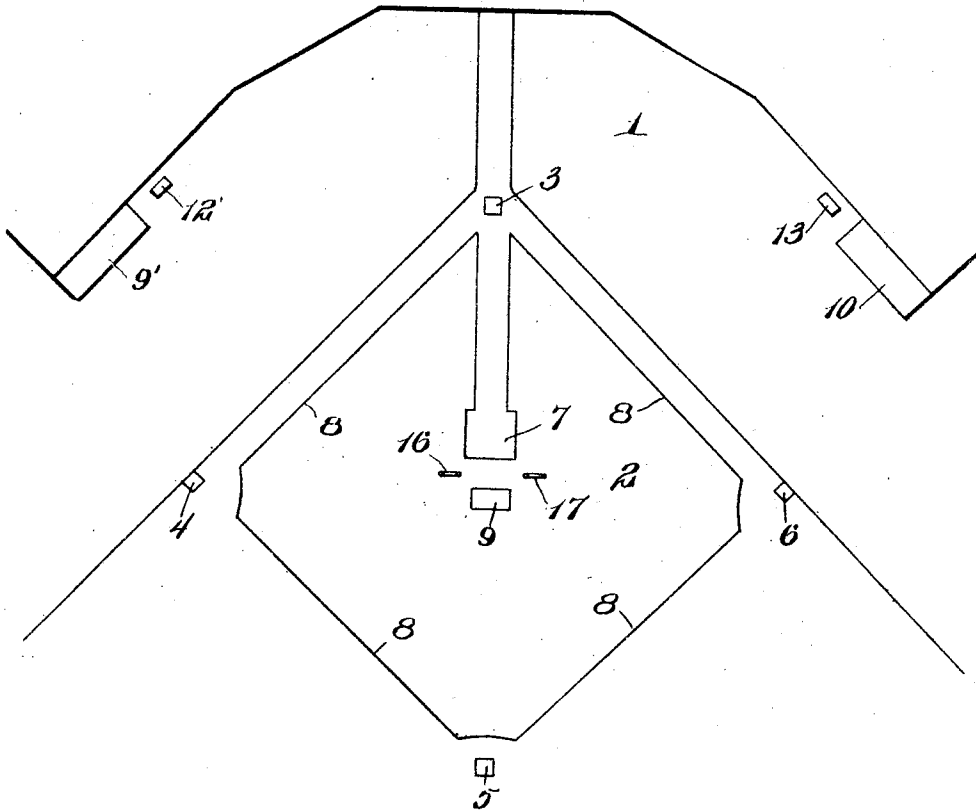
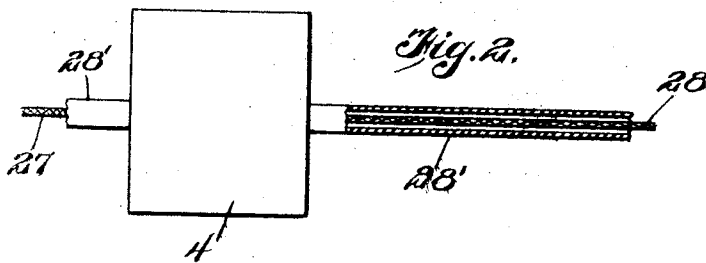


1,207,191.

Fig. 1.



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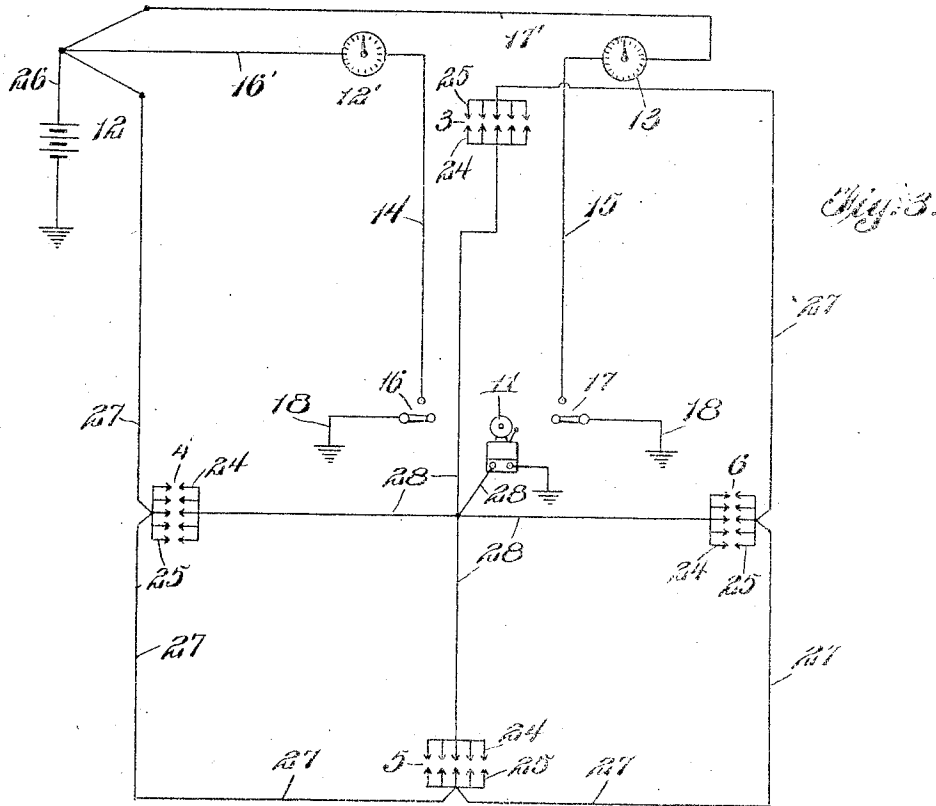
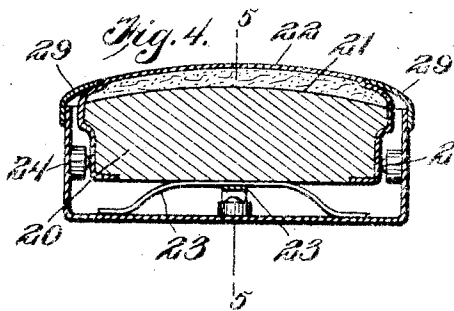
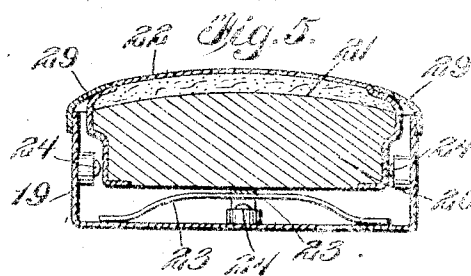
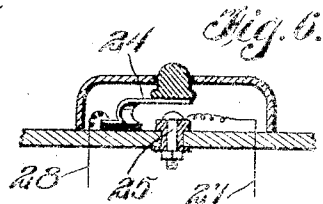
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Victor J. Evans

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 BASE BALL SIGNALING AND INDICATING SYSTEM.
 APPLICATION FILED FEB. 16, 1916.

1,207,191.

Patented Dec. 5, 1916.
 2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL L. MADDEN, OF CHATTANOOGA, TENNESSEE.

BASE-BALL SIGNALING AND INDICATING SYSTEM.

1,207,191.

Specification of Letters Patent.

Patented Dec. 5, 1916.

Application filed February 16, 1913. Serial No. 78,699.

To all whom it may concern:

Be it known that I, SAMUEL L. MADDEN, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented new and useful Improvements in Base-Ball Signaling and Indicating Systems, of which the following is a specification.

This invention relates to a baseball signaling and indicating system, designed particularly for use in baseball parks for the purpose of facilitating and reducing the number of errors incident to the making of decisions on plays occurring at the bases, and also for indicating the respective scores or runs made by the opposing teams or sides.

The primary object of the invention is to provide electrical signaling means, automatically operable when a runner touches any of the bases or bags, for giving an audible or visible signal at the moment of contact, so that the umpire, in making a proper decision as to a put-out or force-out at the base in question, may quickly and properly decide whether or not the runner is safe or has been put out, the giving of the automatic signal relieving the umpire of the burden of watching both players in action and reducing the problem to the simple extent of watching the player handling the ball and determining whether such player touches the runner with the ball before the latter reaches the base and sounds the signal.

A further object of the invention is to provide a means, included in the signal system, by means of which the runs or scores of the respective teams, as made, or other informatory matter may be registered or displayed and the operation thereof placed under the control of the umpire.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings in which:—

Figure 1 is a top plan view of a portion of a baseball playing field, indicating in general the application of the invention. Fig. 2 is a fragmentary plan view of the same, showing certain parts of the system in section. Fig. 3 is a diagrammatic view of the electric circuit complete. Fig. 4 is an enlarged vertical section through one of the bases. Fig. 5 is a horizontal transverse section on the line 5—5 of Fig. 4. Fig. 6 is a

view of a portion of the bottom section of the frame of the base showing the contacts and wires associated therewith.

Referring to the drawings, 1 designates in general a baseball playing field, and 2 the diamond thereof, including the home base or plate 3, first, second and third bases, 4, 5 and 6, respectively, and 7, the pitcher's box, plate or slab. 8 designates the base line which extends between the bases, 9 the point or position occupied by the umpire behind the pitcher, particularly when but a single official of this character is employed as an arbitrator in the game, and 9' and 10 designate positions which may represent the "dugouts" or benches of the home and visiting teams.

Arranged at a suitable point in proximity to the umpire's position 9 is a bell or other audible signal 11 which is arranged in an electric circuit including batteries or other suitable source 12 of current supply and co-operating conductors and circuit closing devices, as hereinafter fully described. Arranged at or near the points 9' and 10 are suitable indicators or registers 12' and 13, which are connected respectively with conductors 14 and 15 leading therefrom to push buttons or circuit closing switches 16 and 17 located in proximity to the umpire's position and respectively connected with the battery by conductors 16' and 17', each indicator or register having a suitable ground connection 18 and adapted to be thrown into operation by the closing of the associated push button or switch so as to register or indicate any desired informatory matter. These indicators are, however, preferably of the annunciator type and bear suitable numerals upon the face thereof and are provided with hands or pointers for coöperation with said numerals to indicate runs or scores made by the respective teams in the game, so that when a run is made by either team the umpire may announce the same in an obvious manner, thus settling all disputes or speculations on close plays where the question of the scoring of a run is involved.

Arranged at each of the bases 3, 4, 5 and 6 is a circuit closing device, which is formed by the base markers, which in the present instance are markers of special construction designed to take the place of the usual bags or sacks as well as the home plate, and to serve as circuit closers. As shown, each of these markers comprises a fixed bottom box-

like section or member 19, which is of rectangular or oblong rectangular form, and an upper movable section 20, which is also generally of oblong rectangular form, the depending portion of the section 20 being fitted loosely within the section 19 to adapt said section 20 to have free vertical, lateral and tilting movements. The section 19 is buried in the ground up to the level of the top of its side wall, while the section 20 has a substantially dome-shaped top 21 which is highest at the center and thence slopes in all directions toward its margins, and this sloping top 21 of the section 20 projects a desired distance above the ground line. If desired, the top and sides of the box-shaped marker frame thus formed may be wholly or partially inclosed within an outer casing 22 of padded canvas or any other suitable padded or cushioning material, thus allowing the frame to be made of metal without liability of injuring a player, the pad or cushion being soft enough to give a desired yielding action. The sloping surface 21 of the movable box section 20 also provides a means whereby a player in sliding may slide up upon the surface thereof without injury, as will be readily understood.

The section 20 is yieldably supported within the section 19 upon a pair of bowed plate springs 23 arranged in crossing relationship, and arranged upon the bottom and sides of the section 19 are spring switch contacts 24, which are insulated from the box sections, and are adapted to engage co-acting switch contacts 25 for the purpose of closing the signaling circuit, the second-named switch contacts also being properly insulated from the box sections to prevent short circuiting or grounding actions. The springs 23 and spring switch contacts 24 normally hold the movable box section 20 supported and centered within the fixed box section 19, in which position the movable contacts are out of engagement with the co-acting spring contacts, but it will be observed that the arrangement is such that upon the depression of the movable box section 20 or any lateral or tilting motion of said movable box section one or the other of the movable switch contacts will be brought into engagement with its cooperating fixed switch contact, and will thus bring a set of contacts into action for closing the electric circuit. Hence a player placing his foot upon the top of the marker or sliding into engagement therewith from any direction will move the movable section of the marker to establish a switch closing action, as will be readily understood.

The circuit connections include a main conductor 26 leading from the battery or source of current supply, and other conductors 27 connecting the fixed contacts of the various markers with each other, together

with conductors 28 connecting said markers with the bell signal 11 whereby in the circuit closing action of any of the markers current will flow therein the battery and to the alarm device and sound the latter. The arrangement of the wires is such as to avoid any liability of interference in the transmission of the current from any one of the markers to the signal bell, and in practice the various wires or conductors extend along the base lines and across the field as required through underground tubes or conduits 28, which will be sealed to protect the wires from moisture and to prevent any short circuiting or grounding except through the ground conductors. It will, of course, be understood that a ground circuit of the character disclosed may be employed, or that in lieu thereof a metallic circuit may be used, as may be deemed most advisable in practice. It will be observed that the sections 19 and 20 of each marker are provided with a strip 29 to close the joint between them and thus keep out any particles of dust or dirt which may find their way through the outer cushion.

The purpose of the present invention is to provide, in addition to the scoring indicators above set forth, means for assisting the umpire in judging a play at a base and enabling him to render a more certain and more decisive interview thereof. In many cases the umpire himself is in doubt as to whether or not a player reaches a base in advance of the ball, or in advance of being touched by the ball in the hands of an opposing player, and resolves this doubt one way or the other, frequently to his own dissatisfaction. By the use of my improved signaling system, however, it will be evident that as soon as the runner touches the base the bell or audible signal will be sounded and the umpire therefore need not pay any attention to the runner, but may concentrate his attention on the other player who handles the ball, it being only necessary for him to determine whether or not the ball is handled for the force-out or put-out before the bell sounds. By this means the operation is considerably simplified, greater certainty in making decisions obtained, and disputes prevented, thus enabling the umpire to render his decisions with great celerity and with better satisfaction to himself, the spectators and the players of the opposing teams.

I claim:—

1. In an electrical baseball signaling system, a base marker comprising an angular box-like receptacle, contacts upon a plurality of the surfaces of said receptacle, a movable member within said receptacle, capable of universal motion for cooperation with said contacts, and means for yieldingly sustaining said movable member.

2. In an electrical baseball signaling apparatus, a base marker comprising a rectangular box-like receptacle, contacts upon the bottom and sides of said receptacle, and
5 a movable member within the receptacle, said movable member being universally movable for coöperation with said contacts, and means for yieldingly sustaining said movable member.
- 10 3. In an electrical baseball signaling and indicating system, a base marker comprising a box-like receptacle, circuit closing contacts upon the bottom and sides of said re-

ceptacle, a movable member universally movable within the receptacle for coöpera- 15
tion with said contacts, means for yieldingly supporting said movable member, and means carried by said movable member for closing the space between the same and the receptacle.

In testimony whereof I affix my signature
in presence of two witnesses.

SAMUEL L. MADDEN.

Witnesses:

N. P. BACON,
W. H. HEATON