

Dec. 19, 1933.

H. D. MAYHUGH

1,940,004

ILLUMINATED SCORE BOARD

Filed May 14, 1930

5 Sheets-Sheet 1

Fig- 1.

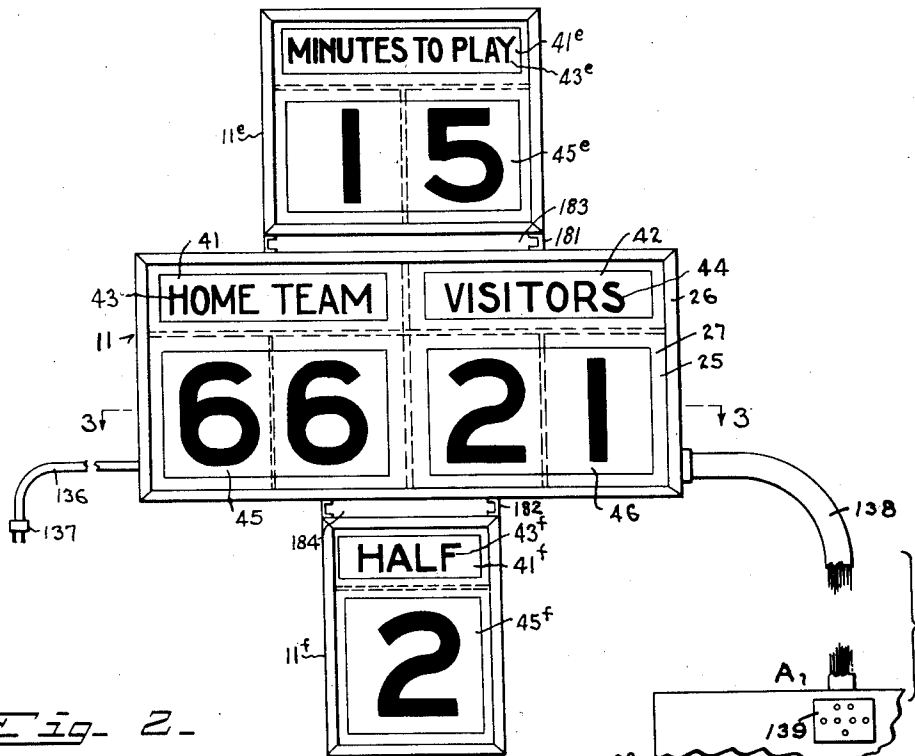


Fig. 2.

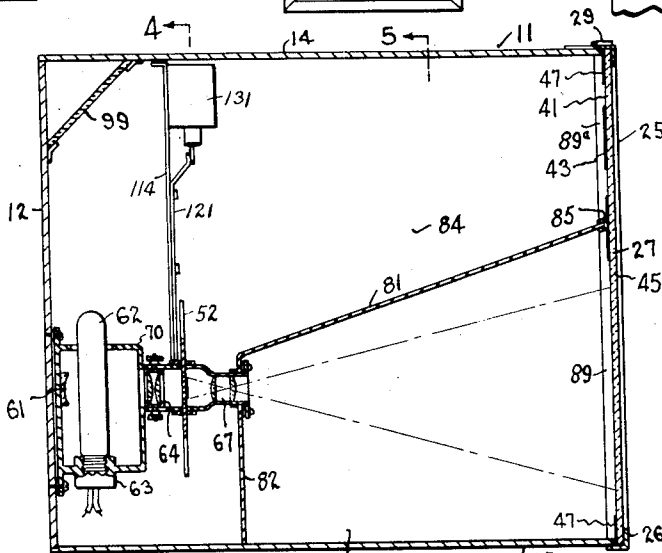
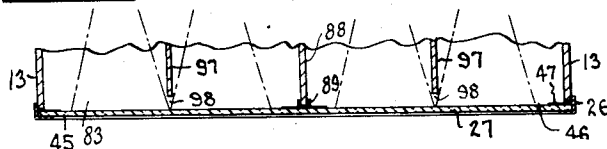


Fig. 3.



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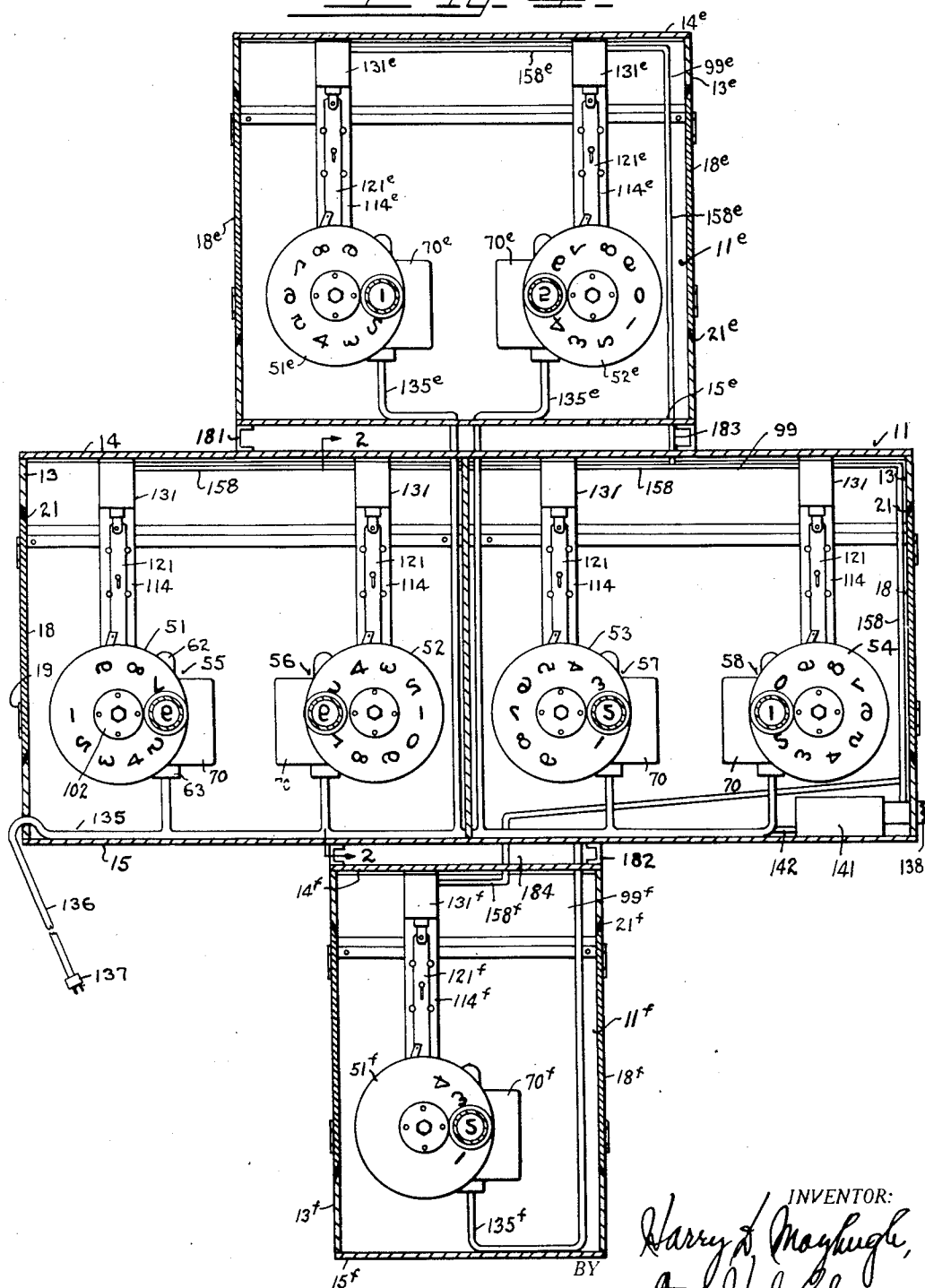
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5 Sheets-Sheet 2

Fig. 4.



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ILLUMINATED SCORE BOARD

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5 Sheets-Sheet 3

Fig. 5-

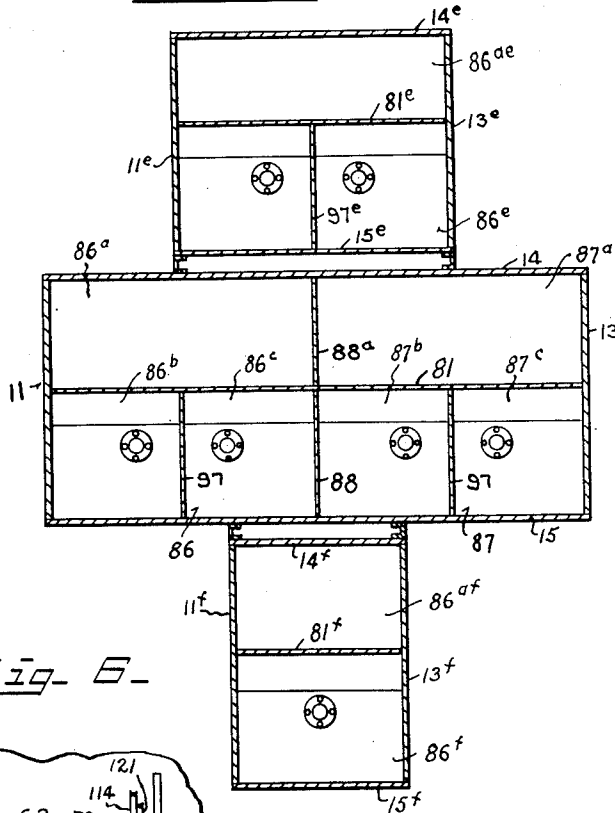
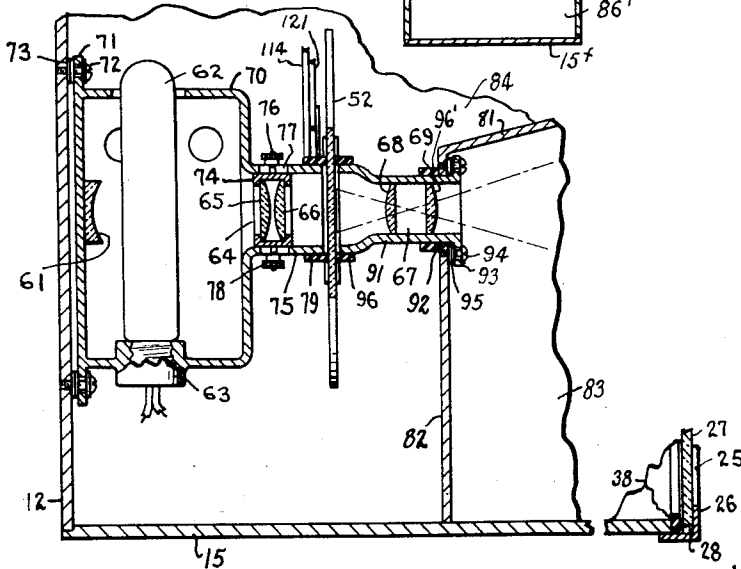


Fig. 6-



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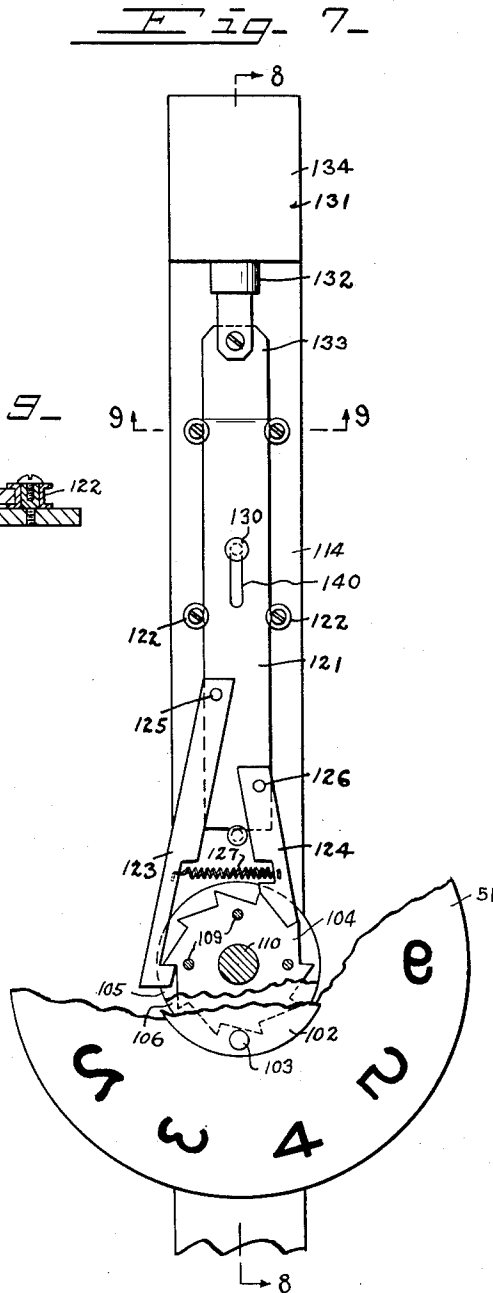
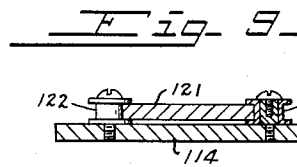
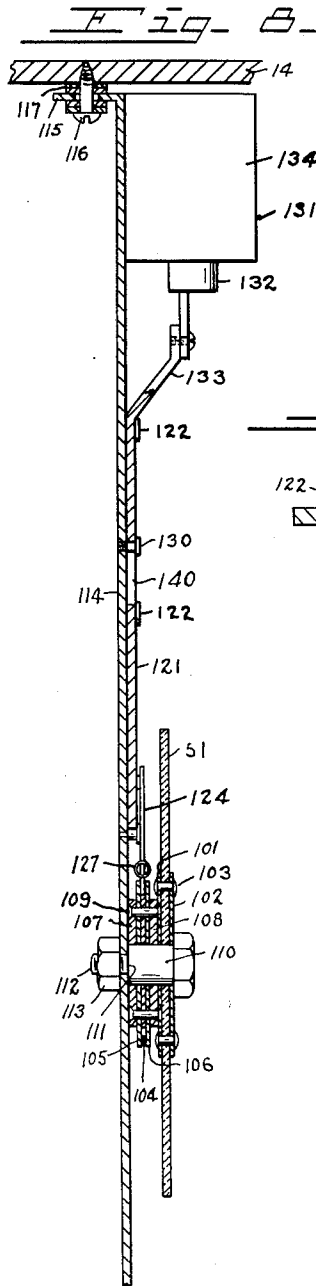
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ILLUMINATED SCORE BOARD

Filed May 14, 1930

5 Sheets-Sheet 4



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ILLUMINATED SCORE BOARD

Filed May 14, 1930

5 Sheets-Sheet 5

Fig. 10

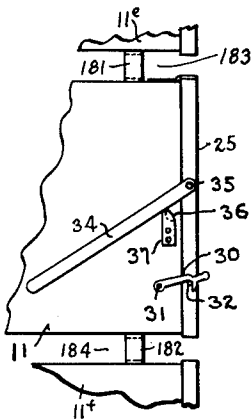


Fig. 11

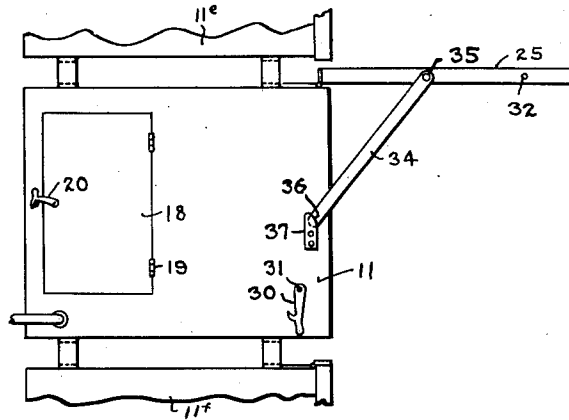
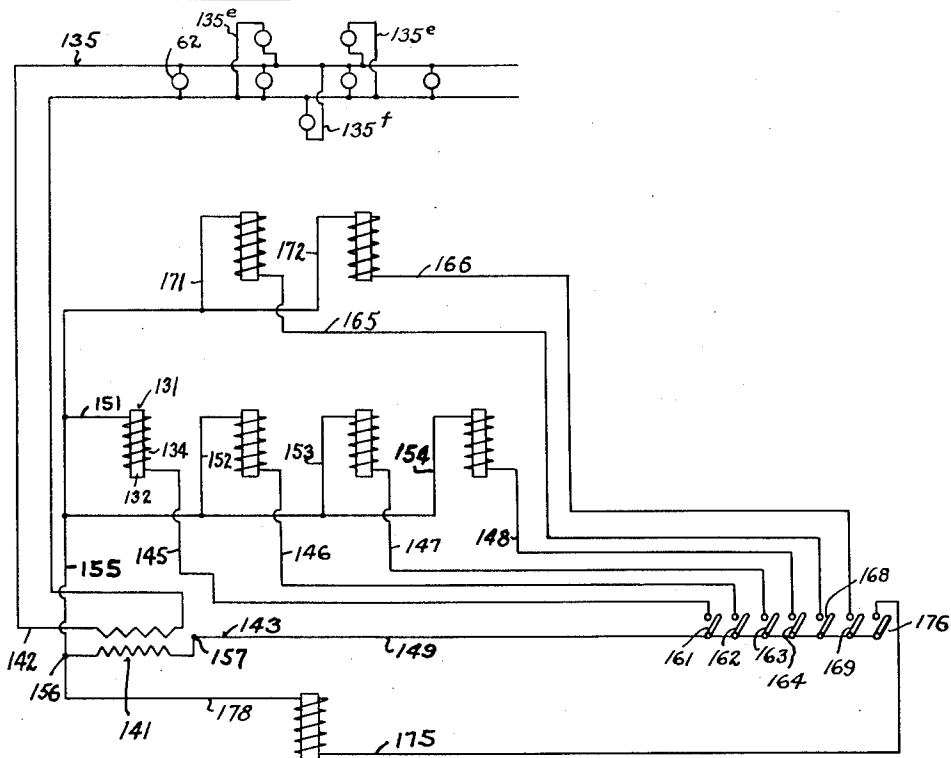


Fig. 12



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UNITED STATES PATENT OFFICE

1,940,004

ILLUMINATED SCORE BOARD

Harry D. Mayhugh, Walton, Ky.

Application May 14, 1930. Serial No. 452,271

4 Claims. (Cl. 88—24)

My invention relates to illuminated score boards, and has for its object the provision of an illuminated score board on which the results of plays are shown as they progress and to provide novel means whereby the showing is accomplished.

It is the object of my invention further to provide novel means whereby a number of numeral carrying means, exemplified as disks, are arranged in compact relation in a plurality of groups, and the information conveyed by the groups shown in separated relation, in order to provide a score board which is comparatively small and in which the depictions of the scores are comparatively large, and the scores of the respective sides are displayed in spaced-apart relation, for clearness in seeing and understanding the information conveyed by the score board.

My improved device is adapted primarily for use in an elevated position where it can be viewed by an audience.

It is the object of my invention, further, to provide novel means whereby a score is shown at a point distant from the position of the official having charge of the score, hereinafter called the score-keeper, and means provided whereby the score-keeper controls the depiction of the score.

It is the object of my invention, further, to provide a series of related projecting instruments for projecting the scores; further, to provide novel means for associating the same; and, further, to provide novel means for controlling the same from a distance.

The invention will be further readily understood from the following description and claims, and from the drawings, in which latter:

Fig. 1 is a front elevation of my improved device, partly broken away.

Fig. 2 is a vertical section of the same, taken in the plane of the line 2—2 of Fig. 4.

Fig. 3 is a horizontal section of a detail of the same, taken on the line 3—3 of Fig. 1.

Fig. 4 is a vertical section of my improved device, taken in the plane of the line 4—4 of Fig. 2.

Fig. 5 is a vertical section of the same, taken in the plane of the line 5—5 of Fig. 2.

Fig. 6 is an enlarged vertical section, taken in the plane of the line 2—2 of Fig. 4, and partly broken away.

Fig. 7 is a front elevation of the actuating means for one of the disks, partly broken away.

Fig. 8 is a vertical axial section of the same, taken in the plane of the line 8—8 of Fig. 7.

Fig. 9 is a horizontal section of a detail of the same, taken in the plane of the line 9—9 of Fig. 7.

Fig. 10 is a side elevation of a detail of my improved device, partly broken away, and showing the doors closed.

Fig. 11 is a similar view showing the middle door open; and,

Fig. 12 is a diagrammatic view of the electrical circuits.

The score board comprises a casing 11, which may be in the form of a box having a rear wall 12, end walls 13, a top wall 14 and a bottom wall 15, the said walls being rigidly secured together for forming a rigid casing. There may be doors 18 in the respective end walls for access into the interior of the casing, the respective doors being hinged on hinges 19 and held in closed position by a latch 20, there preferably being a cushioning joint 21 surrounding the door for preventing the emission of light from the casing. The walls are preferably opaque walls for arresting light from the interior to the outside of the casing. The walls may be made of wood.

The casing has a front wall 25, which may be in the form of a door, and comprises a marginal frame 26 constructed of angle irons and a plate 27, the margins of which are secured in the angles of the angle irons, as by clips 28. (Fig. 6). The front wall may be hinged to the casing by means of hinges 29, the butts of which are secured respectively to the tops of the casing and of the door. (Figs. 2, 10 and 11).

The marginal wings of the angle irons of the front door extend at right angles to the plane of the door and are received outside the walls of the casing for forming a light obstructing joint between the casing and the door. The door may be held in closed relation by means of a latch 30 at each end of the casing, pivoted at 31 to the casing and received over a latching pin 32 of the door.

In order to hold the door in open relation for attention to parts in the interior of the casing, a brace-rod 34 is provided at each end of the door. This brace-rod is shown hinged to the door on a pin 35 at one end of the rod, the other end of the rod being received in sockets 36 on anchor lugs 37 fixed to the side walls of the casing at suitable elevations. (See Figs. 10 and 11). A cushion joint 38 may be between the door 25 and the edge of the casing. (Fig. 6).

The front plate is provided with suitable windows or screens upon which items of information of the play are visible. The screens and items of information are such as are suitable to the game being played, the game illustrated being exemplified as basket ball.

Thus screens 41, 42, are for designations of the teams playing, these screens being at the top and the respective sides of the score board. These screens are provided with designations of the teams, and these designations may be of general character. The screens are of such nature as to transmit light therethrough from the inside of the casing.

The designations of the teams may be as shown at 43, 44, instanced respectively as "Home team" on one of said screens and "Visitors" on the other of said screens. (Fig. 1). These designations may be painted with opaque paint or otherwise shown direct on the light transmitting screens.

Screens 45, 46, are respectively located at the respective sides of the front plate under the designations of the respective teams. The number of points scored by the respective teams are shown upon said last-named screens as the game progresses. These screens are light transmitting, and may be designated score screens.

The screens may be suitably formed. Thus the screens may be light transmitting spaces in a ground glass plate, forming the plate 27, which has been painted with opaque paint, leaving the screen spaces unpainted. The painted portions are designated 47. (Figs. 2 and 3).

A series of light transmitting subject carriers are provided and are shown as disks 51, 52, 53, 54. It will be readily understood that films or film strips or other light transmitting subject sheets having the subjects thereon may be used in the light projection without departing from the spirit of my invention as disclosed in the appended claims. (Figs. 2, 4, 6, 7 and 8).

Projecting devices 55, 56, 57, 58, are for the purpose of projecting the numerals of the scores or other desired information upon the screens 45 and 46. Description of one of these projecting devices will suffice for all of them, similar parts in the various projecting devices being designated by the same reference numerals. (Fig. 4).

Each of the projecting devices comprises a reflector 61, an electric light bulb 62, in an electric socket 63, a condenser 64, comprising lenses 65, 66, and an objective 67 comprising objective lenses 68, 69, also known as projection lenses. One of the subject sheets having the subjects thereon to be projected, is located between the condenser and the objective. (Figs. 2 and 6).

The reflector, bulb, socket and condenser are preferably mounted in a housing 70, which is preferably a ventilated housing, being provided with ventilating openings for directing the heat of the bulb away from the reflector and condenser. The housing is preferably secured to the rear wall 12 in such manner as to adjust its position with relation to the objective 67 in order to bring the parts in alignment with each other and with the subject.

Thus the housing may be provided with lugs 71 having enlarged holes through which screws 72 are screwed into the rear wall. Suitable washers 73, of suitable number and thickness, may be placed respectively in front or in rear of the lugs for aligning the housing, the enlarged holes with relation to the screws permitting shifting of the housing in all directions upon the rear wall, for positioning the housing laterally up or down or diagonally. The housing is secured in adjusted position to the rear wall.

The condensing lenses 65, 66, may be in a tube 74, which is adjustable lengthwise in a tube 75, which is part of the housing, and fixed in adjusted

positions. Screws 76 may project from the tube 74 through slots 77 in the tube 75, nuts 78 clamping the tubes together. The tube 75 may be provided with a cushioning margin 79 received annularly about the inner end of the tube for coacting with the subject sheet and limiting light diffusion outside the projecting means. (See Fig. 6).

Inner partitions 81, 82, form compartments 83, 84, extending lengthwise in the casing. The front end of the partition 81 is preferably provided with a cushioning margin 85 received against the front plate 27 for limiting light diffusion from one of said compartments to the other. (See Figs. 2 and 6).

The interior of the casing may also be divided into cross-compartments 86, 87, 86a, 87a, by means of cross-partitions 88, 88a, in the respective lengthwise compartments 83, 84, for providing separate compartments for the showings of the respective teams. The cross-partitions 88, 88a, are provided with a forward cushion margin 89, 89a, coacting with the front plate 27 to limit light diffusion. (Figs. 5 and 2).

The objective 67 is preferably adjustable with relation to the condenser. The lenses of the objective are shown located in a tube 91 which is located in the partition 82. (Fig. 6).

The tube 91 is in a hole 92 in the partition 82. It is provided with an annular flange 93 through enlarged holes in which screws 94 extend and are screwed into the partition 82. Washers 95 of suitable number and thicknesses are located at the respective sides of the flange for adjusting the position of the objective. Cushioning rings 96, 96' are adjustable about the ends of the tube for contacting the subject carrier and the partition respectively for limiting light diffusion.

Each of the compartments 86, 87, is divided by a sub-partition 97 for forming sub-compartments 86b, 86c, 87b, 87c. (Fig. 5). The light projection from one of the pair of projecting means is received in each of these sub-compartments, the sub-partition restricting light transmission between said sub-compartments. The forward end of each of the partitions 97 is spaced from the screen, as shown at 98, for avoiding a dark line showing between the tens and units on the screen.

The various cushioning margins and the cushioning ring 96 may be of close opaque fabric. The partitions may be of wood.

In order to give the depictions for the scores of the respective teams further individuality, the showings of the respective teams are further preferably in different colors, instanced as accomplished by providing electric bulbs of different colors for the respective pairs of light projecting devices in the respective cross-compartments 86, 87.

Thus the bulbs in the compartments 86, 86a, for the home team may show red and in the compartments 87, 87a, for the visitors may show green.

The light from the bulbs outside the housings in the cross-compartments 86a, 87a, may be diffused throughout the upper parts of said respective cross-compartments and illuminate the screens 41, 42, having in the present instance depicted thereon "Home team" and "Visitors". If desired, the upper rear portion of these cross-compartments may be provided with angularly placed reflectors 99 for projecting the light from said bulbs in said compartments upon the respective screens 41, 42. (Figs. 2 and 4).

The means for advancing the subject sheets for depicting the scores of the respective sides are shown electrically controlled and operated. The means for operating the respective subject disks

are the same and similar parts of each are designated by similar reference numerals.

Thus each of the disks 51, 52, 53, 54, is mounted between disks 101, 102, rivets 103 connecting said disks and the subject disk therebetween. A ratchet-wheel 104 has flange disks 105, 106, at its respective sides, collars 107, 108, being at the respective sides of the flange disks. The ratchet-wheel, the flange disks and the collars are secured to the disk 101 by means of rivet pins 109, for securing all of these parts rigidly together, and causing the subject disk to rotate with the ratchet-wheel and forming a mounting for the subject disk. (See Figs. 7 and 8).

This mounting is provided with a central hole forming a bearing about a journal-bolt 110, provided with a shoulder 111 and having a reduced threaded end 112 over which a nut 113 is screwed for clamping the shoulder bolt to a support 114.

The support is fixed in the casing. It is shown as a hanger provided with a top flange 115, having enlarged holes through which screws 116 are threaded into the top wall of the casing. Washers 117 in suitable number and thickness are located at the respective sides of the flange for elevationally and tiltingly positioning the support, the enlarged holes permitting shifting of the support for proper alignment of the subject disk. (Fig. 8).

A slide 121 has reciprocation on the support, being guided thereon by guides 122. Pawls 123, 124, are respectively pivoted to the slide on pivot-pins 125, 126, and coact alternately with the teeth of the ratchet-wheel for intermittently rotating the subject disk. A spring 127 connects the pawls for moving their engaging ends toward the ratchet-wheel. (Figs. 7, 8 and 9).

An electric translating device 131, shown as a solenoid, is provided for actuating the slide. The core 132 of the solenoid is secured to a bent end 133 of the slide and operates in the coil 134 of the solenoid.

The ratchet-wheel is shown provided with ten teeth, corresponding to the number of digits on the subject plate. When the coil of the solenoid is energized it moves the slide upwardly, the pawl 123 in contact with one of the teeth rotating the subject disk to the extent of one-half an angular movement, the pawl 124 engaging with another of the ratchet teeth upon completion of said partial movement.

Upon deenergizing of the solenoid, the slide moves downwardly by gravity, the last-named pawl coacting with the last-named tooth for completing the angular movement of the subject disk, for a complete intermittent movement of the latter for one angular division of the subject disk, and causing the next higher digit to be exposed at the screen. A pin 130 rigid in the hanger 114 received in a slot 140 in the slide forms a stop for limiting end movements of the slide, the end walls of the slot coacting with the pin for the purpose.

The digits at the proximate edges of the disks of a pair of the subject disks are exposed to the action of a pair of the projecting means. The digits are in up-side-down and reverse relations on the disks so as to show in upright and proper relation on the screen. The disks rotate in the same direction, but the proximate edges of the pair of disks move in opposite directions. The directions of rotation are indicated by arrows.

For this reason the digits on the respective disks of a pair of disks are arranged in opposite order, the digits on one disk being arranged clock-

wise and on the other disk counter-clockwise, for instance as depicted in Fig. 4. Proximate digits on the neighboring disks are also spaced apart a distance to conform to the ratio of enlargement of the digits between the disk and the screen, so as to bring the showings of the digits of the pair of disks in proper neighboring relation on the screen to indicate the units and the tens of a given number.

The units of the respective scores are shown at the right hand portions of the respective screens 45, 46, and the tens are shown at the left hand portions thereof.

The disks are respectively divided into ten angular spaces. The unit disk has the ten digits, 1 to 0, consecutively shown thereon, and the tens disk has the digits, 1 to 9, consecutively shown in nine of said spaces, the tenth space being blank or opaque. The score screens of the respective pairs of disks are of such size as to expose one of the score marks on each disk of the pair. When the unit portions of the respective scores are being shown, the opaque spaces are respectively exposed at the respective score screens. When the scores reach the tens period, the tens disks are respectively rotated to respectively expose the tens, twenties, etc. at said screens, each of said digits remaining at the screen throughout the exposure of the complete series of units at said screen.

Besides the main casing 11, auxiliary casings 11e, and 11f may be provided, the auxiliary casings being constructed similarly to the main casing, and housing similar parts similarly operated, the auxiliary casing 11e and the parts associated therewith similar to the main casing 11 and the parts associated therewith, being designated by similar reference numerals with the exponent e, and the auxiliary casing 11f and the parts in association therewith similar to the main casing and the parts associated therewith being designated by similar reference numerals with the exponent f. (See Figs. 1, 4, 5, 10 and 11).

The auxiliary casing 11e has a screen 41e therein, on which a title 43e is shown, exemplified as "Minutes to play".

It is also provided with a screen 45e similar to the screen 45 for receiving enlargements from disks 51e, 52e, similar to the disks 51, 52, and constructed and operated in similar manner. The digits on the disks 51e, 52e are preferably arranged reversely to the digits on the disks 51, 52, for the reason that the showing thereof is of minutes remaining to play, which decrease as the play proceeds.

If the game is being played in quarters, it is usual to allow ten minutes actual play for the play of each quarter, in which instance only one of the disks need be used. If, however, the game is being played in halves, it is usual to allow twenty minutes actual play for a half, in which case it is desirable to employ two of the disks.

The solenoids may be manually controlled as in the case of the solenoids in the main casing 11.

The auxiliary casing 11f is provided with a screen 41f similar to the screen 41, on which there is a notation 43f for the purpose of said auxiliary casing, for instance, the word "Quarter", if the game is to be played in quarters, which notation may, however, be "Half" if the game is to be played in halves. There is a disk 51f similar to the disk 51, and parts for controlling and operating the same similar to the parts for controlling and operating the disk 51 and for

mounting the same, designated by similar reference numerals with the exponent *f*.

The numerals designating the period of play, as quarters or halves, are 1 to 4 inclusive, exposed successively if the game is being played in quarters, and 1 and 2 exposed successively if the game is being played in halves.

The operation of the solenoids is shown as manually controlled and the manual control is at a distance from the location of the solenoids.

The lamps are preferably energized from any public utility service. There may be a suitable partial circuit 135 in the casing 11, connecting with each of the sockets 63, and continued in an electric conduit 136 connecting with the terminals of a plug 137 arranged to be received in any suitable electric socket of the public utility service (Figs. 4 and 12). Suitable partial circuits 135e, 135f, are in the respective casings 11e and 11f, for the lamps therein, being continued into the casing 11 to connect with the wires in the conduit 136.

Suitable control means are provided for the solenoids 131, the solenoids being preferably in control circuits which are normally open and which are partially contained in a flexible conduit 138 leading from the casing 11 to a distanced point, for instance the station A of the score-keeper, and into a switch block 139 at said station. (Figs. 1, 4 and 12).

In the game of basket ball it is desirable to locate the casing at one end or upon one wall of the hall in which the game is being played in most convenient position for being viewed by the audience. The digits are considerably enlarged from their size on the digit disks, and it may be instanced that in the device described the digits on the digit disks may measure three-quarters of an inch in height and be enlarged to seven or eight inches on the windows or screens in a projection distance of sixteen inches, and that the casing in which the apparatus is contained may have a depth of substantially not more than two feet. These dimensions are given merely as illustrations and not as limitations.

The station of the score-keeper is usually located on the floor on which the play is taking place at a point about mid-way between the fields of the respective sides and at a point considerably distanced from the casing. The electric connections between the casing and the switchblock are under such circumstances necessarily long, and are preferably arranged in the flexible conduit 138, which is led around the walls, or through and along the ceiling, or through and below the floor, or in other manners to suit the relative locations of the score board and the station of the score-keeper and the structure in which they are contained.

The current of the control circuits of the solenoids is preferably a different current from the public utility current, and is preferably a current induced by the latter, as by means of an electric translating device, exemplified as a transformer 141, in which 142 represents the public service wiring of higher voltage and 143 represents the wiring of lower voltage for the control circuits. (Figs. 4 and 12.)

The transformer may be located in the casing 11, and the wiring 142 thereof may be electrically connected with the partial circuit 135 for the lamps in said casing.

There is preferably a wire from one of the terminals of each of the solenoids in the casing 11, as see the wires 145, 146, 147, 148, and a common

return wire 149. The other of the terminals of the respective solenoids are connected with wires 151, 152, 153, 154, which are connected with a wire 155 leading to one of the poles 156 of lower voltage or control wiring in the transformer. The wire 149 connects with the other pole 157 thereof. The wires 145, 146, 147, 148 and 149 are continued in the conduit 138 leading from the casing 11 to the switch-block 139. (Figs. 1, 4 and 12.) The pairs of wires 145, 151; 146, 152; 147, 153 and 148, 154, are in a conduit 158 in the casing 11, the wire 155 being also in said conduit.

Switches 161, 162, 163, 164, are located at the station of the score-keeper, and are arranged to be operated by him for controlling the operations of the respective solenoids in the casing 11. These switches may be in the switch-block 139 and be operated by the buttons thereof connecting with the switches and having similar numerals applied thereto. The wires 145, 146, 147, 148, connect with one of the poles of said respective switches, the common wire 149 connecting with the other pole of all said switches.

There is preferably a wire from one of the poles of each of the solenoids in the casing 11e, as see the wires 165, 166. The wires 165, 166, are led from the casing 11e into the casing 11 and continued in the conduit 138, and respectively connect with one of the poles of switches 168, 169, in the switch-block 139, being operated by buttons in said switch-block similarly designated. The other of the poles of said respective switches are connected with the common wire 149.

The other pole of said respective solenoids are connected with wires 171, 172, which are interconnected and lead into the casing 11 to the wire 155 connecting with the pole 156 of the transformer. The pairs of wires 165, 171 and 166, 172 are in a conduit 158e leading from the casing 11e into the casing 11 and connecting with the conduit 158. (Fig. 4.)

There is a wire 175 connected with one of the poles of the solenoid in the casing 11f, which is led from said casing into the casing 11 and continued in the flexible conduit 138 to the switch-block 139, being connected with one of the poles of a switch 176 in the switch-block 139 at the station of the score-keeper, and operated by a button on said switch-block similarly designated. The wire 149 connects with the other pole of said switch.

A wire 178 connects with the other pole of the solenoid in the casing 11f, and is continued from said casing into the casing 11, where it is connected with the wire 155. The wires 175, 178 are in a conduit 158f leading from the casing 11f into the casing 11 and connecting with the conduit 158.

The auxiliary casing 11e may be secured to the main casing 11 by means of channel irons 181, the wings of which are screwed respectively to the lower corners of the auxiliary casing and to the top of the main casing. The auxiliary casing 11f may be secured to the main casing 11 by means of channel irons 182, the respective wings of which are screwed to the upper corners of the auxiliary casing and to the bottom of the main casing. The casings have spaces 183, 184, between them for accommodating the front doors.

While I have exemplified my improved device as used in connection with the game of basket ball, it is obvious that it may be used in connection with other games, such as foot ball, base ball, bowling and other games, the designations on the screens and the scores being such and

in such number and arrangement as are applicable to the game being played.

By means of my improved device an illuminated scoring means is provided which is compact and on which the scores and various indications are displayed in large characters, so that the same may be readily viewed by the audience from any portion of the hall or grounds where the play is taking place, and the control of the score board is had from a distanced point, namely, the position of the score-keeper, who is close to the participants and other officials in the play, so that he may receive the results of play promptly, and immediately transmit such results to the score-board by the control means at his position, such transmission being direct by the score-keeper to the score board without the intervention of other human agency and in such manner that error during transmission is guarded against.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a device of the character described, the combination of a casing, a partition therein forming a plurality of compartments in said casing, one of said compartments comprising spaced-apart screens for receiving the showings of scores of opposing teams, a plurality of screens for the other of said compartments having designations thereon of said opposing teams, light projecting means for each of said first-named screens projecting through said partition between said compartments, each of said light projecting means comprising an illuminating device for projecting light through said light projecting means and for illuminating said other of said compartments, numeral carrying means for each of said light projecting means, each of said numeral carrying means provided with numerals arranged to be placed in the path of the light of said light projecting means complementary to said numeral carrying means, and means for moving said respective numeral carrying means for changing the numerals in said respective paths.

2. In a device of the character described, the combination of a casing, a partition therein forming a plurality of compartments in said casing, one of said compartments comprising spaced-apart screens for receiving the showings of scores of opposing teams, a plurality of screens for the other of said compartments having designations thereon of said opposing teams, light projecting means for each of said first-named screens projecting through said partition between said compartments, each of said light projecting means comprising an illuminating device for projecting light through said light projecting means and for illuminating said other of said compartments, numeral carrying means for each of said light projecting means, each of said numeral carrying means provided with numerals arranged to be placed in the path of the light of said light projecting means complementary to said numeral

carrying means, means for moving said respective numeral carrying means for changing the numerals in said respective paths, and control means for the latter distanced from said light projecting means.

3. In a device of the character described, the combination of a casing comprising a pair of series of compartments, each of said series of compartments comprising a compartment for the designation of a team and an adjacent pair of sub-compartments, said sub-compartments juxtaposed for single glance viewing of scores, and means in each of said series of compartments for showing said scores comprising a pair of light projecting means, a screen for each of said sub-compartments therefore, numeral carrying means for each of said sub-compartments arranged to be placed in the respective paths of light of said respective light projecting means, said screens being juxtaposed, and arranged for showing the projections of said respective numerals enlarged on said respective screens of said sub-compartments in such juxtaposition for single glance comparison between them, means for changing said numeral carrying means for changing the numerals in said path, each of said light projecting means comprising an illuminating means and means for differently coloring the light projection for the respective compartments of said series of compartments.

4. In a device of the character described, the combination of a casing comprising a pair of series of compartments, each of said series of compartments comprising a compartment for the designation of a team and an adjacent pair of sub-compartments, said sub-compartments juxtaposed for single glance viewing of scores, supplemental compartments, light projecting means for each of said sub-compartments and said supplemental compartments, numeral carrying means for each of said sub-compartments and said supplemental compartments provided with numerals arranged to be placed in the respective paths of light of said respective light projecting means, independent moving means for moving the latter for changing the numerals in said respective paths, a screen for each of said sub-compartments and said supplemental compartments on which to show said respective numerals, said screens of said sub-compartments being juxtaposed and arranged for showing the projections of said respective numerals therefor enlarged on said respective screens of said sub-compartments in such juxtaposition for single glance comparison between them, a second screen for one of said supplemental compartments on which there is a designation of time remaining for play, a second screen for the other of said supplemental compartments on which there is a designation of the period of play, and associated control means for said moving means.

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