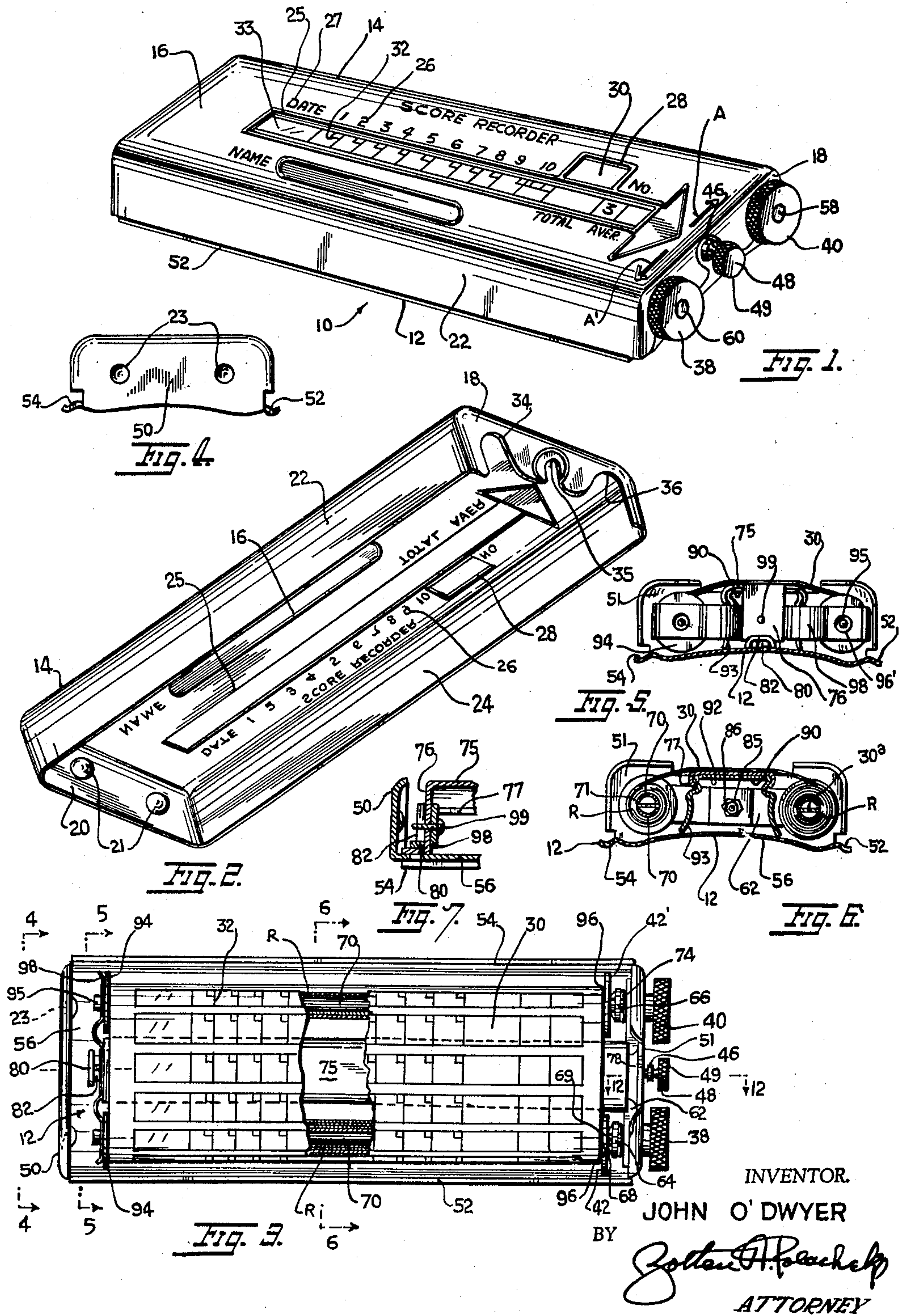


J. O'DWYER

SCORE RECORDING DEVICE

3 Sheets-Sheet 1



April 27, 1965

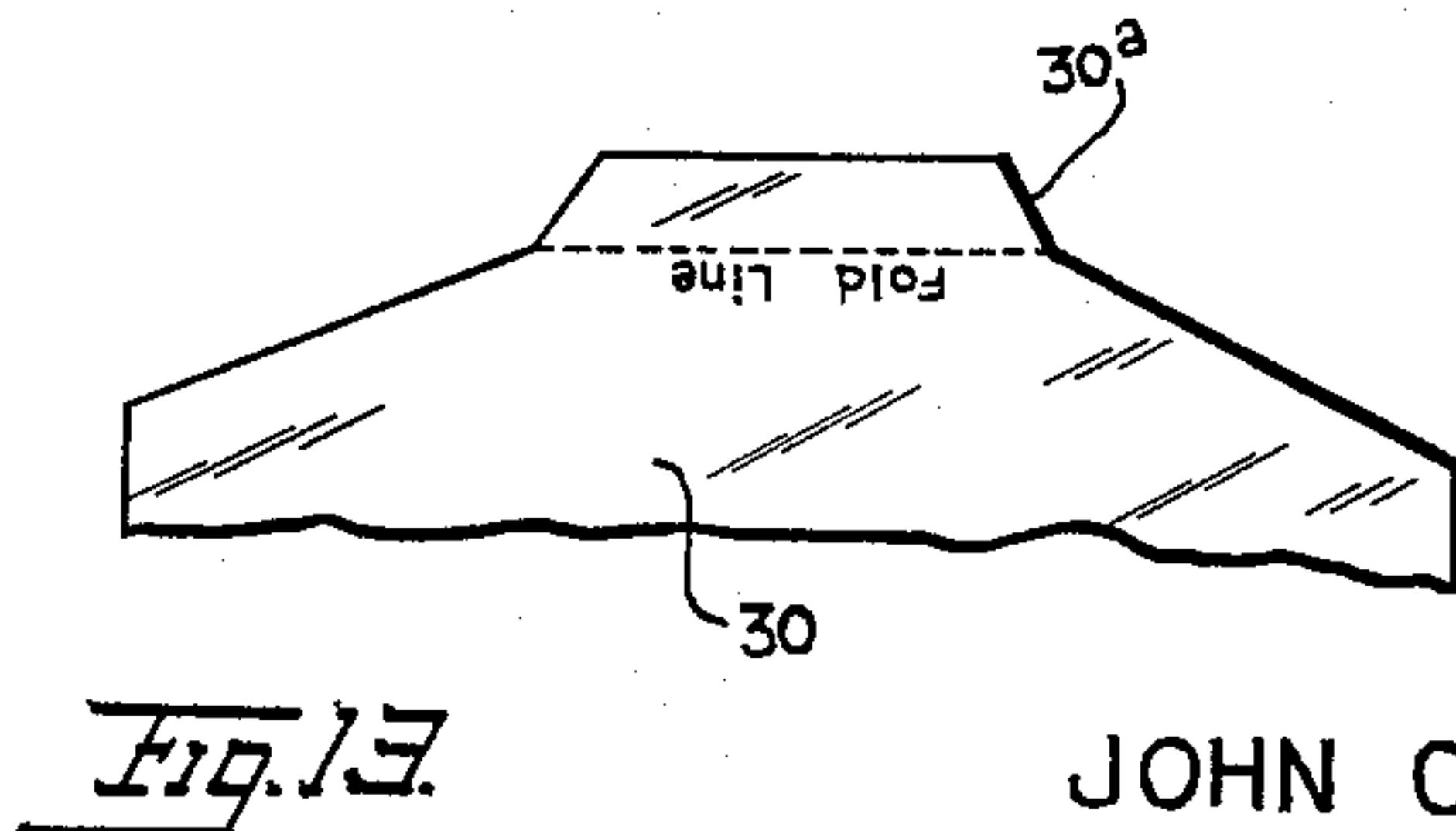
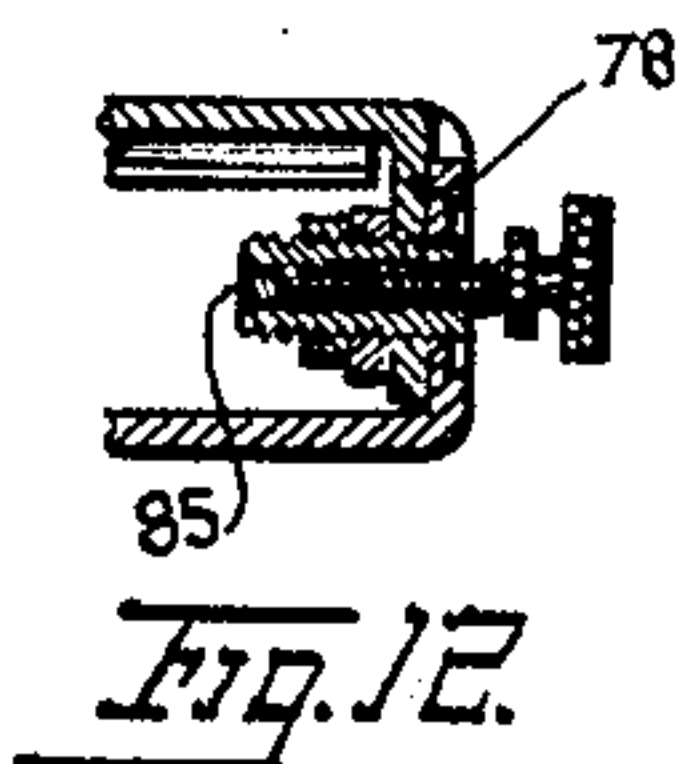
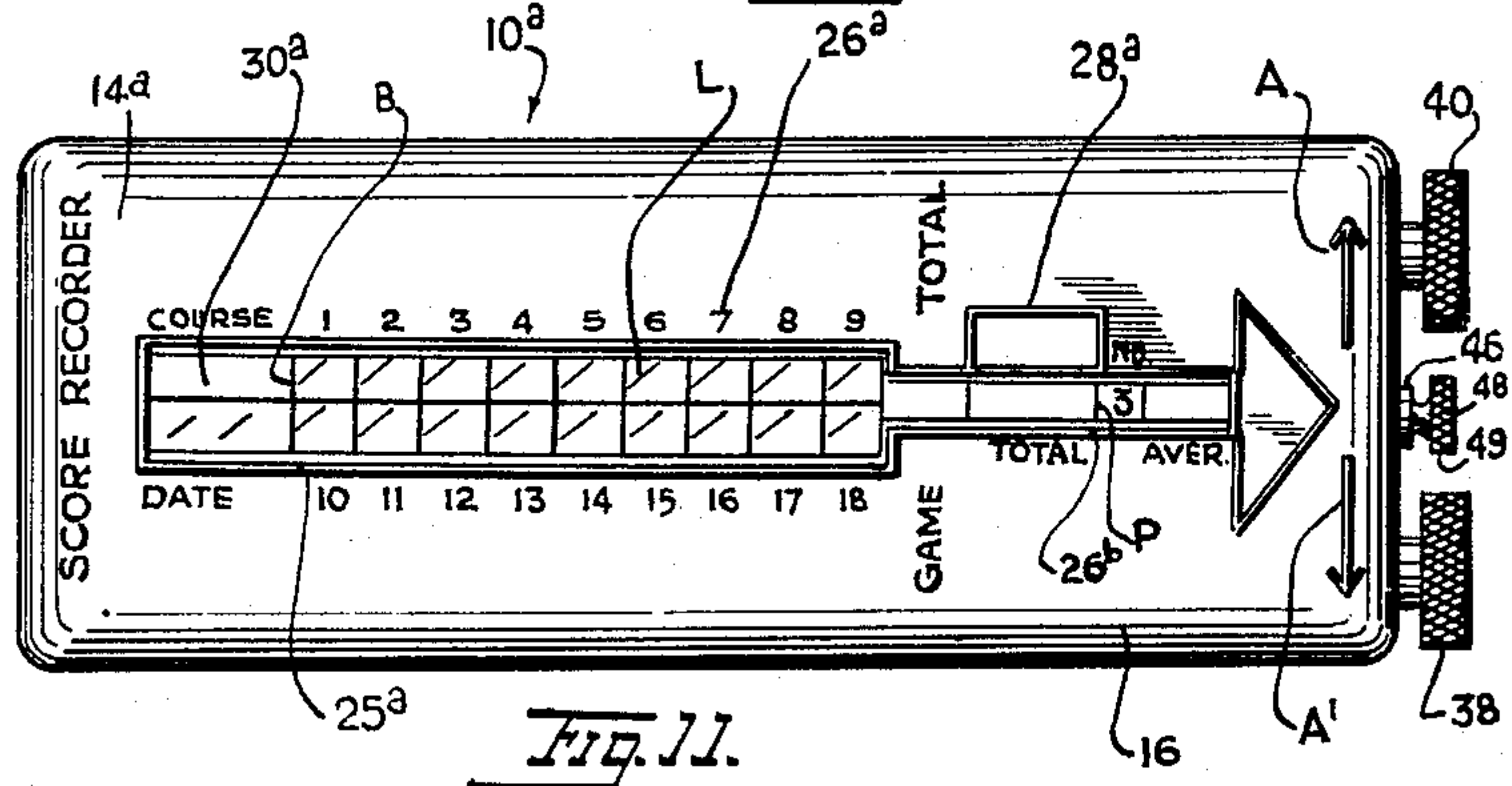
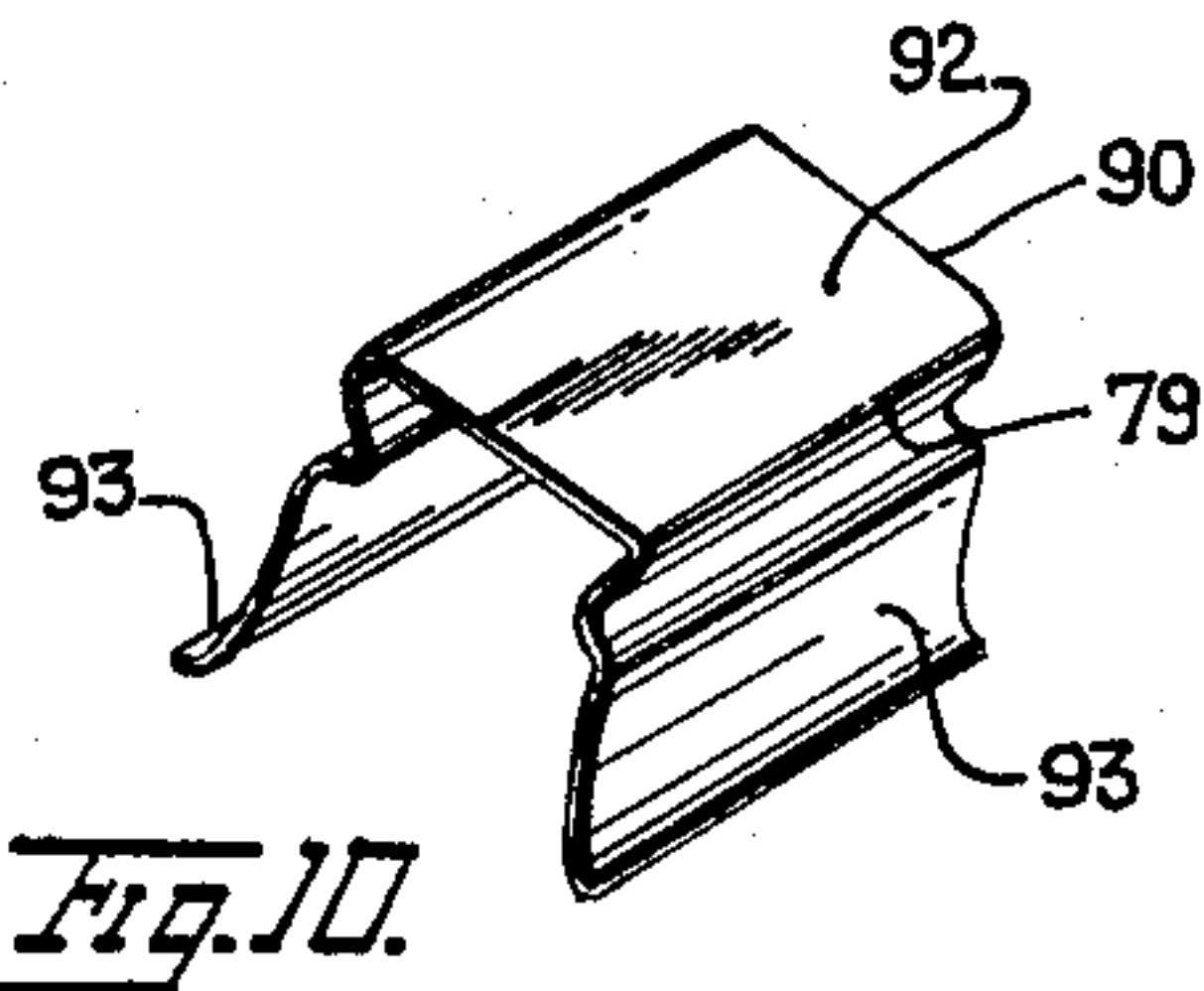
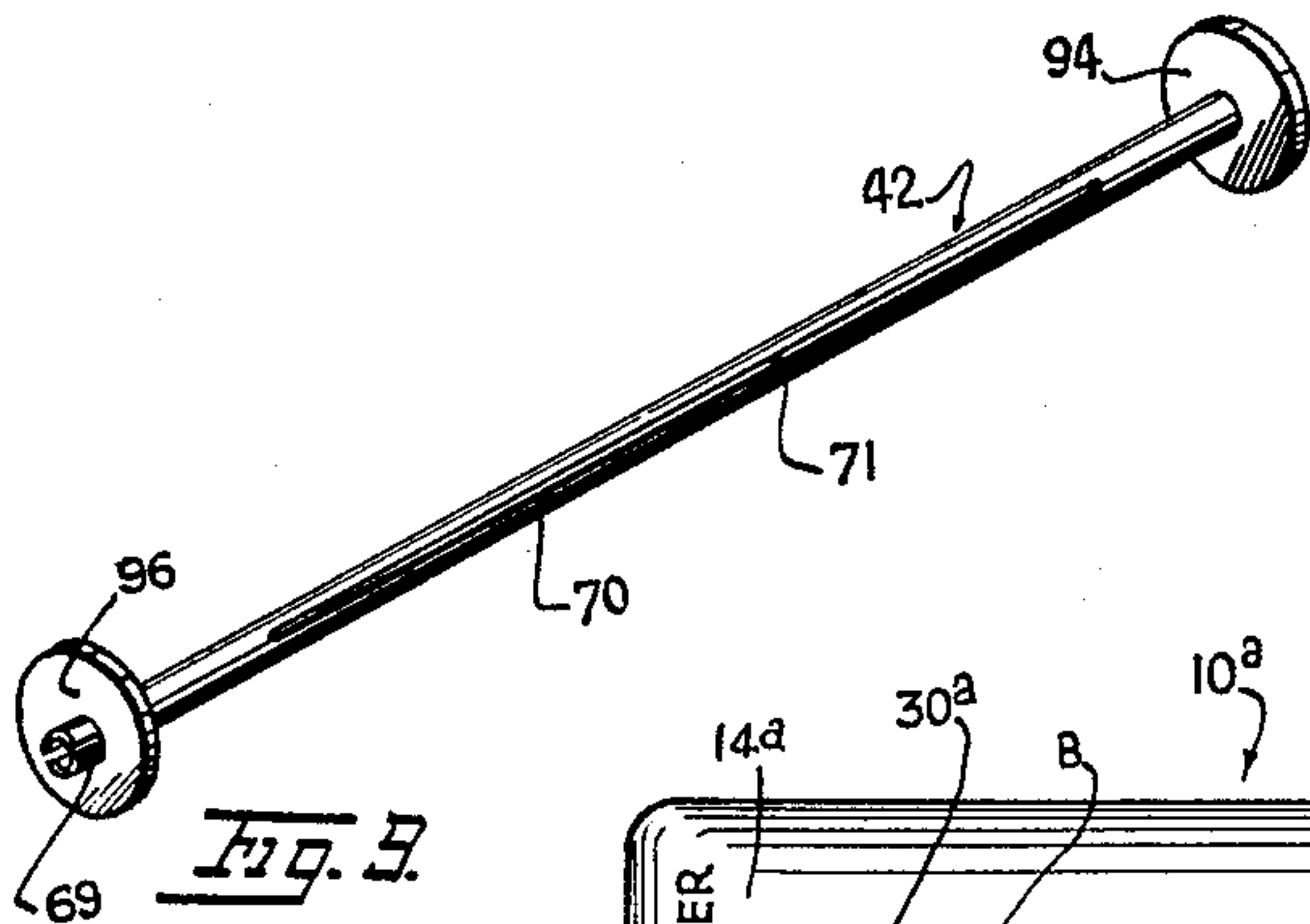
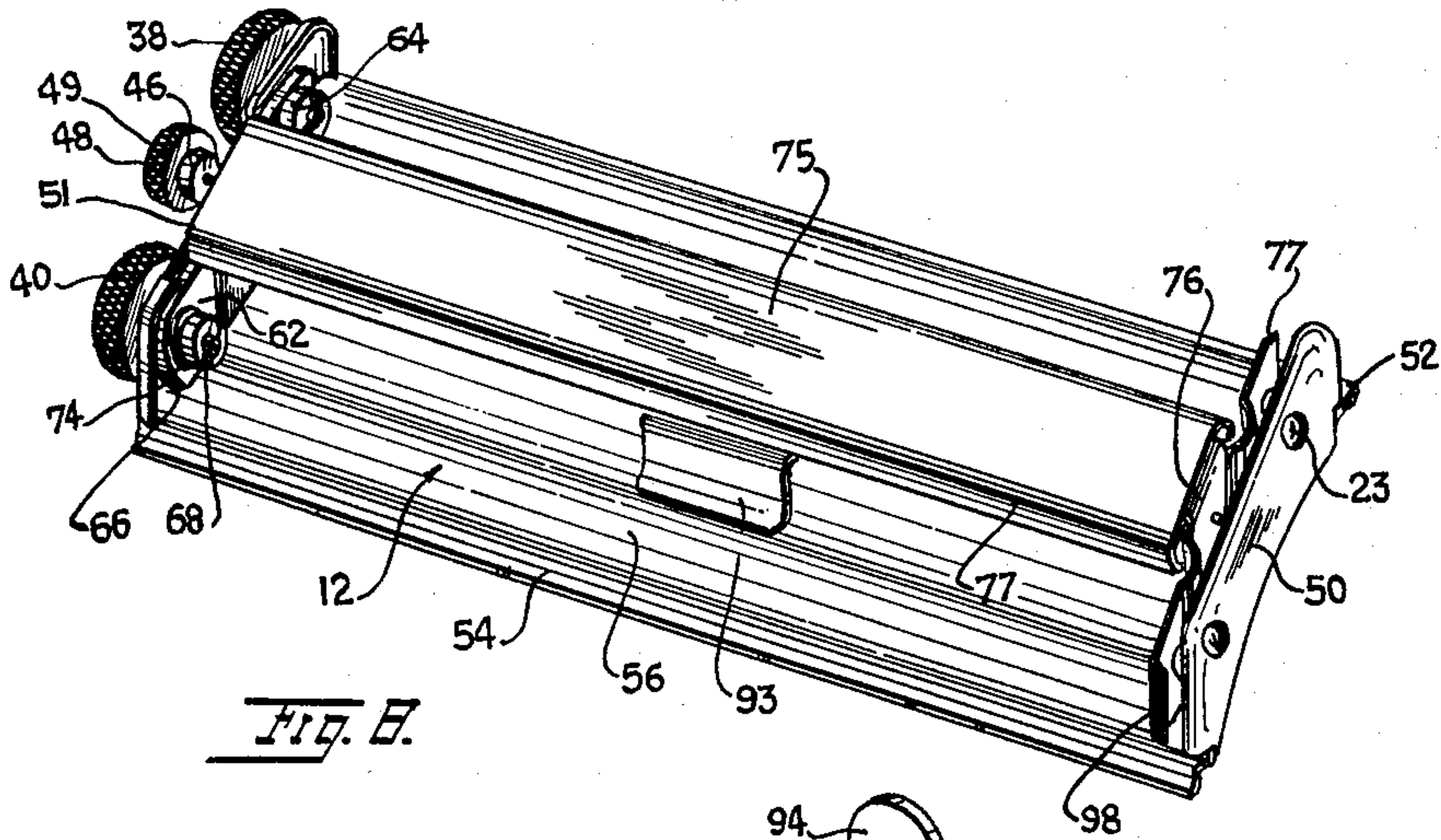
J. O'DWYER

3,180,658

SCORE RECORDING DEVICE

Filed Dec. 19, 1962

3 Sheets-Sheet 2



INVENTOR.
JOHN O'DWYER
BY *John O'Dwyer*
ATTORNEY

April 27, 1965

J. O'DWYER

3,180,658

SCORE RECORDING DEVICE

Filed Dec. 19, 1962

3 Sheets-Sheet 3

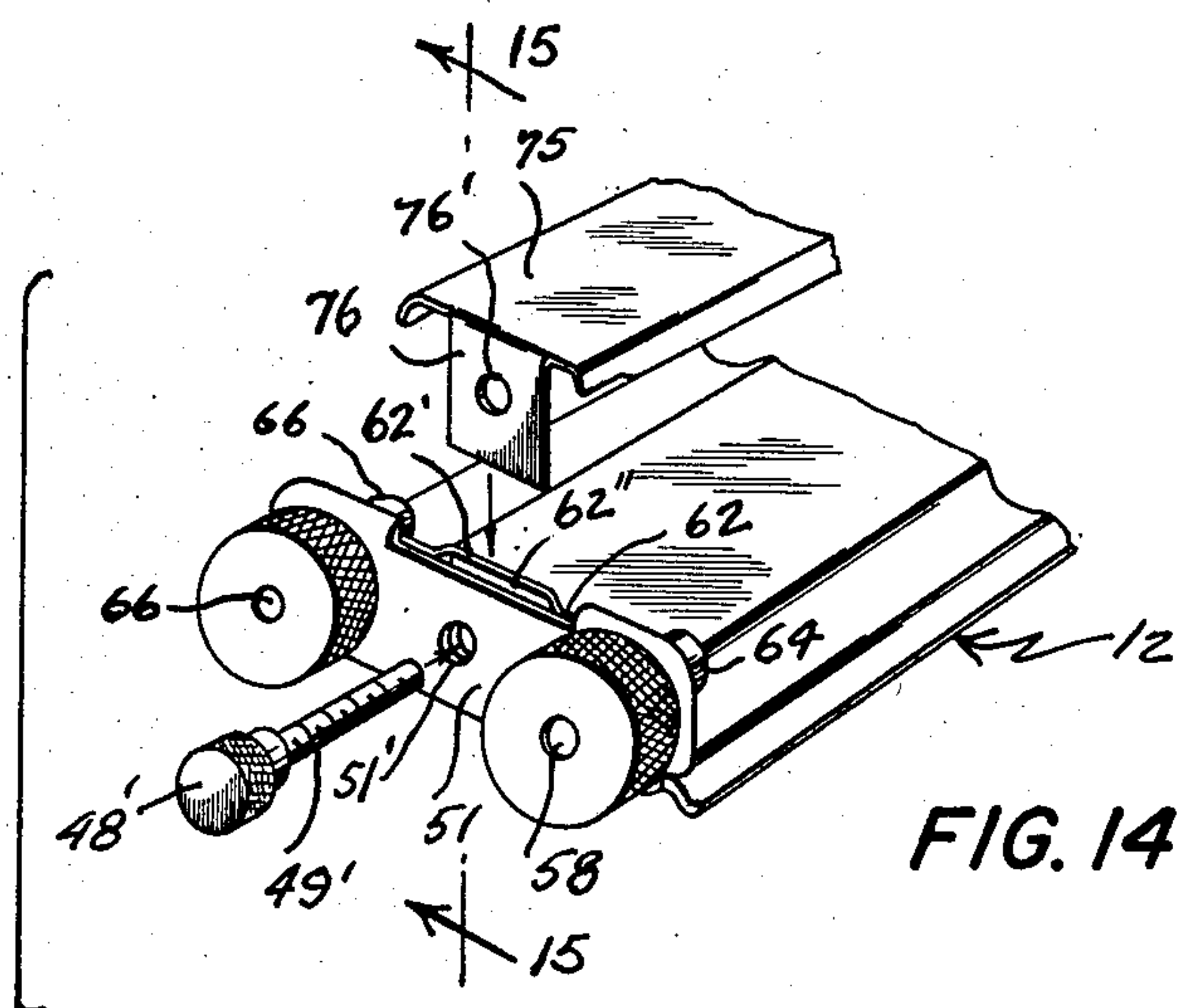


FIG. 14

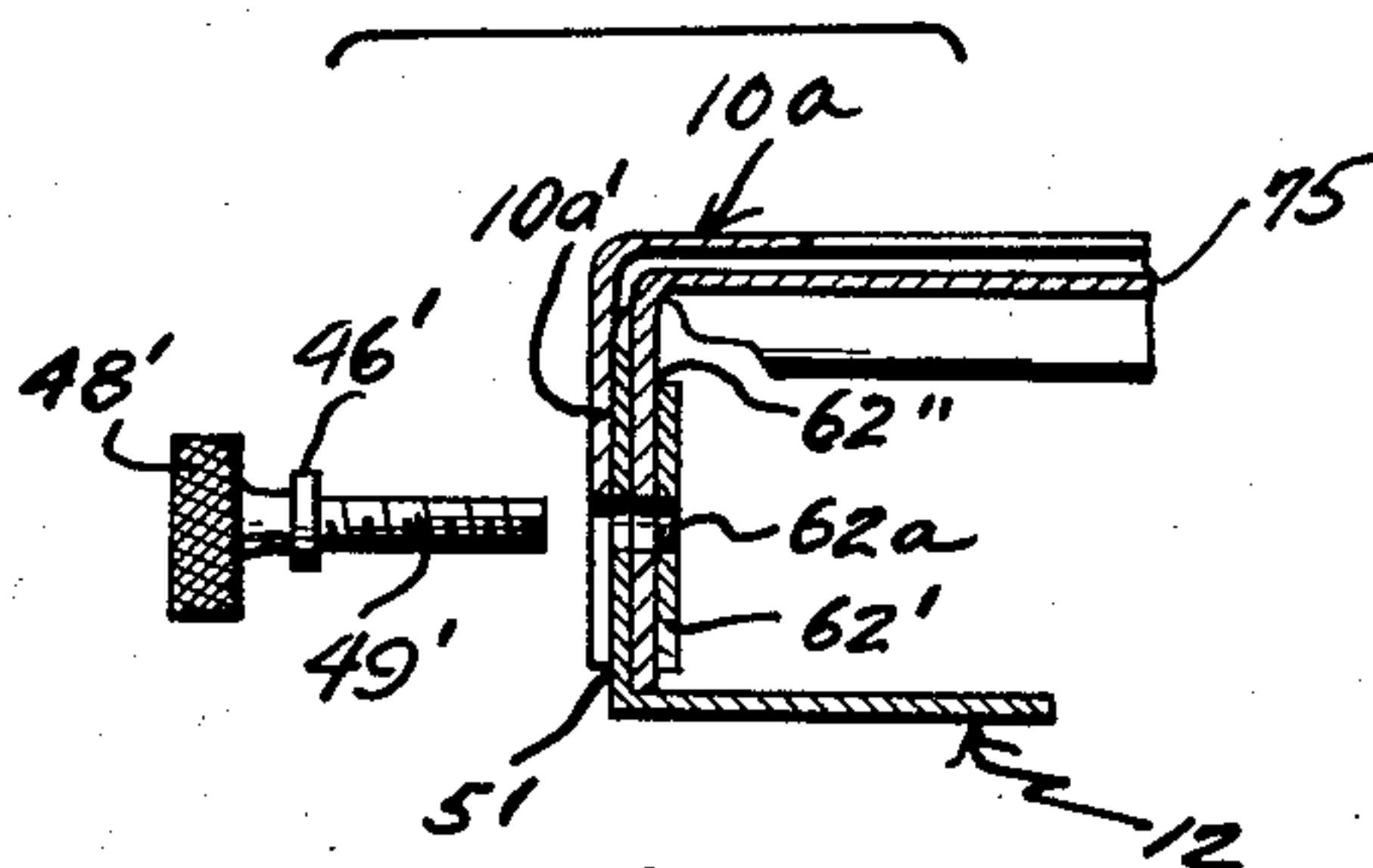


FIG. 15

JOHN O'DWYER, INVENTOR

Zoltan H. Polachek

BY

ATTORNEY

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3,180,658

SCORE RECORDING DEVICE

John O'Dwyer, 61—25 182nd St., Flushing, N.Y.

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2 Claims. (Cl. 281—9)

This invention concerns a game scoring device.

According to the invention, there is provided a base frame having a pair of removably mounted spools on which is carried a score chart in the form of an elongated paper web. The base frame includes a platen over which the web is passed. Knobs are engaged with the spools for turning the spools to advance the web over the platen. On the base frame is a removable cover having openings defining windows to expose certain portions of the web on the platen. On the exposed portions of the web in the openings in the cover may be marked scores of a game such as bowling, golf, or the like. The cover has indicia thereon at the openings listing the several frames of a bowling game, the several holes of a golf game or the like. The device permits the score chart to be advanced for scoring many successive games or rounds of play. When the paper chart is fully scored it can be removed and a new roll of paper can be inserted on the spools.

It is therefore one object of the invention to provide a game scoring device having a base frame adapted to mount spools carrying a paper web score chart over a platen on the frame, with a cover removably mounted on the frame, the cover having openings to expose certain portions of the web and including indicia at the openings for guidance in marking the paper web.

Another object is to provide a game scoring device of the character described with novel means for removably mounting and holding the cover on the base frame.

Another object of the invention is to provide a game scoring device of the character described with a novel means for assembling the platen over which the paper is passed upon the base with the thumb screw for holding the cover upon the base also serving for holding the platen upon the base.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIGURE 1 is a perspective view of a device embodying the invention,

FIG. 2 is a perspective view of the cover per se,

FIG. 3 is a top plan view of the base frame with cover removed, parts being broken away,

FIG. 4 is an end elevational view of the base frame taken on line 4—4 of FIG. 3,

FIGS. 5 and 6 are sectional views taken on lines 5—5, 6—6, respectively, of FIG. 3,

FIG. 8 is a perspective view of the base frame per se, spools and paper web being removed,

FIG. 9 is a perspective view of a spool,

FIG. 10 is a perspective view of a web and roller guide,

FIG. 11 is a top plan view of another score recording device according to the invention,

FIG. 12 is a sectional view taken on line 12—12 of FIG. 3,

FIG. 13 is a fragmentary plan view of an end of the paper web employed in the device,

FIG. 14 is an exploded fragmentary perspective view of a modified construction for the bolt attaching end of the cover in which the finger bolt not only secures the cover to the base but the platen to the base, and

FIG. 15 is a fragmentary enlarged sectional view of

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the modified portion of the construction as viewed generally on line 15—15 of FIG. 14, the cover being shown in position.

In FIG. 1, there is shown a score recorder device 10 having a base frame 12 on which is removably mounted a cover 14. The cover 14, as shown to best advantage in FIGS. 1 and 2, is a shallow, open bottom, box-like member with a top wall 16, end walls 18, 20 and side walls 22, 24. The end and side walls define a skirt all around the cover depending from the top wall. The cover may be pressed or stamped from sheet metal or may be molded plastic. The top wall 16 has an elongated rectangular opening 25. Adjacent one edge of this opening are numerals 26 molded or pressed into the body of the cover. Another opening 28 is formed in the top wall adjacent to opening 25 to expose the total score of the previous game or round of play recorded on a paper web score chart 30 inside the device. The web 30 has a printed scoreboard or score box 32 which is marked play by play adjacent to the numerals 26. The web has a portion 33 reserved for marking the date as indicated by the date marking 27 on the cover.

End wall 18 of the cover has notches 34, 35 and 36. Notches 34 and 36 extend around hubs of knobs 38, 40 which are used to turn spools 42, 42' on which the paper web is engaged; see FIG. 3. Notch 35 has a raised edge which is engaged by annular flange 46 of a screw 49 having also a knob 48 disposed between knobs 38, 40 and carried by the base frame. When the screw 49 is tightened the cover is secured on the base frame. The end wall 20 of the cover has spaced inwardly extending projections 21 which fit into corresponding recesses 23 formed on end wall 50 of the base frame; see FIG. 4. The cover is thus held at one end by engagement of the projections 21 in recesses 23 and at the other end by the knob 48 of screw 49 pressing on wall 18. The free edges of side walls 22, 24 of the cover seat on flanges 52, 54 formed at outer edges of the base frame by pressing or coining; see FIGS. 3—6 and 8.

The base frame 12 includes a substantially rectangular base plate 56 which is slightly curved transversely and formed with slightly curved lateral extension 52, 54. The plate has upwardly extending end walls 50, 51. End wall 51 carries rotatable stub shafts 58, 60 to which the knobs 38 and 40 are attached. A crossbar or plate 62 is mounted on the inner side of end wall 51. Hubs 64, 66 are secured on the inner ends of shafts 58, 60 which pass through plate 62. These hubs have keys 68 which engage in slotted ends 69 of spool shafts 70; see FIGS. 3, 6, 8 and 9. Spring washers 74 on shafts 58, 60 are located between the hubs 64, 66 and plate 62 to prevent backlash in the shafts 58, 60 and too free rotation of the knobs and spools so that the paper web can be held properly tensioned on the platen.

The paper web passes over a platen 75 which is a generally rectangular elongated plate. The plate has depending end flanges 76, 78. Flange 76 has an outwardly extending foot 80 which fits into a loop 82 pressed upwardly out of the base plate 56; see FIGS. 5 and 7. Flange 78 fits into a recess defined between cross plate 62 and end wall 51. A sleeve screw 85 extends through plate 62 and is secured by a nut 86. The screw 85 is internally threaded and receives the threaded shank of screw 49 whose knob 48 is used to secure the cover on the base plate; see FIG. 12.

A spring clip 90, shown in FIGS. 5, 8 and 10, serves as a guide for the web engaged on the shafts 70 of the spools 42, 42'. The clip is generally inverted U-shaped with a flat top or bight 92 which abuts the underside of the platen 75. The platen has curved edges 77 in which fit curved edges 79 of the top of the clip. The clip has

curved legs 93 which are outwardly concave to guide the cylindrical rolls R of paper web carried by the spools.

The spools have annular end flanges 94, 96. Ends 95 of the shafts 70 extend beyond the flanges 94 and engage in holes 96' formed in a leaf spring 98 adjacent end 50 of the cover 14. This leaf spring is secured to the depending end flange 76 of platen 75 by a screw 99. The leaf spring extends laterally of the platen at the end thereof in a vertical plane perpendicular to the platen to journal the ends of the spool shafts adjacent end 51 of cover 14 thereon. The other ends of the spool shafts are slotted at 69 and engage on keys 68 of hubs 64, 66 at the other end of the base frame. The shafts 70 of the spools have diametrically opposed slots 71 in which may be threaded end flaps or tongues 30^a of the web 30; see FIGS. 6 and 13.

Cover 14 for recorder 10 shown in FIGS. 1 and 2 is intended primarily for scoring bowling games and provides for ten frames as indicated by the ten numerals 26. FIG. 11 shows a similar score recording device 10^a having a cover 14^a arranged for scoring golf games. Web 30^a has eighteen printed boxes B with oblique lines L for marking the par of each hole. Eighteen numerals 26 are impressed in the cover at opposite edges of opening 25^a, with nine boxes at each edge of the opening. An extension 26^b of opening 25^a is employed to expose portion P of the web for marking the total score. Opening 28^a exposes the total score of the previous round of the course. Arrows A, A' on the covers 14 and 14^a indicate that knobs 38, 40 may be turned in either direction to move the web in either direction in the device.

In FIGS. 14 and 15, the base 12 has the end wall 51 and a cross bar or plate 62 with an inwardly depressed portion 62' forming, upon being secured to the end wall 51 by the hubs 64 and 66 of the knobbed shafts 58 and 60, a pocket 62'' into which depending end attaching flange 76 of the platen 75 is inserted. A turn screw 49' is extended through a hole 76' in the flange 76, a hole 51' in the end wall 51 and is threaded into thread hole 62a in the cross plate 62. This eliminates the special hollow bolt and nut arrangement in the first form of the invention as shown in FIG. 12. The turn screw 49' has a flange 46' that will engage with the end wall 10^a of cover 10^a so that the same turn screw when tightened by its knob 48' will be threaded in opening 62a in the cross plate 62 and will serve not only to hold the platen 75 with its depending attaching flange 76 in the pocket 62'' but the cover 10^a would be flange 46' of the screw engaging therewith in the manner as above described in connection with the first form of the invention to hold both the platen and the cover in place upon the end wall 51 of the base 12. To remove the cover it is not necessary that the turn screw 49' be entirely removed as shown in FIG. 15 but merely backed off a slight amount to release the flange 46' of the screw 49' from the slotted end wall 10^a of the cover 10^a.

The invention makes it possible to keep score of many rounds of golf, or many bowling games. The device may be readily adapted for scoring baseball games, football games, boxing matches, hockey, soccer, etc. The device is easily portable. It can be carried by a player while playing the game, without interfering with his play.

The device is rugged, durable, and inexpensive to manufacture. It makes an ideal accessory for participants and spectators of many types of games. A permanent record is provided of scores, in a compact, easily filed form.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

This application is a continuation-in-part of the application—Serial No. 129,153 filed August 3, 1961, for A Scoring Device, now abandoned.

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

1. A game scoring device of the character described comprising an elongated rectangular base plate having an integral upwardly extending end wall at each end thereof; a medially disposed platen having an integral flange at each end thereof which extend downwardly therefrom into engagement with said base plate; a cross-bar disposed adjacent one of said flanges and one of said end walls; a screw shaft, having an actuating knob and a clamping flange on one end thereof, by which said one of said flanges and said cross-bar are secured to one of said end walls with said cross-bar extending outwardly on each side of said one of said flanges; a leaf spring secured to the other of said flanges and extending outwardly therefrom on each side thereof; means by which the other of said flanges is anchored to said base plate against lateral movement with respect thereto adjacent the other end wall; a pair of stub shafts one of which is rotatably mounted in aligned apertures in said one of said end walls and said cross-bar on one side of said platen and the other of which is rotatably mounted in aligned apertures in said one of said end walls and said cross-bar on the other side of said platen, each of said stub shafts having an actuating knob secured to the outer end thereof and a key on the inner end thereof; said leaf spring having a pair of apertures one of which is disposed adjacent one end thereof in axial alignment with one of said stub shafts and the other of which is disposed adjacent the other end thereof in axial alignment with the other of said stub shafts; a pair of similar spools each of which comprises a shaft having a key slot in one end thereof and a pair of annular flanges one of which is disposed adjacent to and inwardly of each end thereof, one of said spools being removably mounted on one side of said platen with the slotted end thereof engaging the key on one of said stub shafts and the other end thereof extending through the aperture in said leaf spring disposed in axial alignment with the said one of said stub shafts and the other of said spools being mounted on the other side of said platen with the slotted end thereof engaging the key on the other of said stub shafts and the other end thereof extending through the aperture in said leaf spring disposed in axial alignment with the said other of said stub shafts; a web which is wound upon one of said spools and is adapted to be withdrawn therefrom across the upper surface of said platen and wound onto the other of said spools; and a shallow box-like cover which is adapted to enclose said platen and said spools, said cover comprising a top wall, and a pair of downwardly extending side walls which are connected together at the ends thereof by a pair of end walls, one of said end walls being provided with a pair of spaced inwardly extending bosses and the other end wall having a plurality of slots therein which are adapted to encompass said stub shafts and said screw shaft, said topwall having an elongated opening therein which is disposed over said platen when said cover is in place and through which said web is exposed; and securing means by which said cover is removably secured in place comprising a pair of spaced depressions in the said other end wall of said base into which said bosses extend, and said screw shaft which is adapted to clamp the other said end wall of said cover between the clamping flange thereon and the said one end wall of said base.

2. A game scoring device as defined by claim 1 in which the side edges of said platen are curved downwardly and inwardly, and in which a generally inverted U-shaped spring guide clip is disposed under said platen intermediate the end flanges thereof; said clip comprising a flat top section which abuts the underside of said platen, and a pair of outwardly concave legs which extend downwardly from the ends of said top section into engagement with said base plate, each of said legs having a horizontally

disposed groove therein for reception of the downwardly
and inwardly curved side edges of said platen.

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