March 30, 1954 R. R. WEBER 2,673,413

SCORE CARD

Filed March 17, 1950

Fig. 1

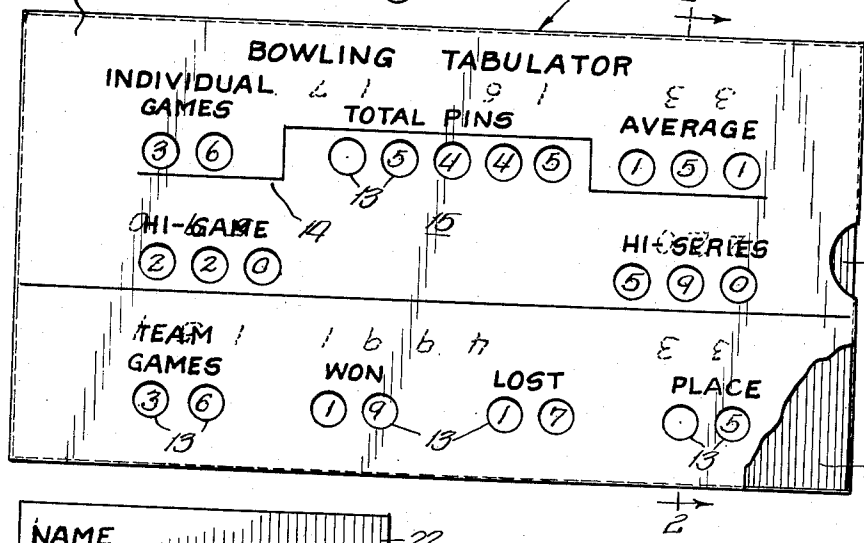
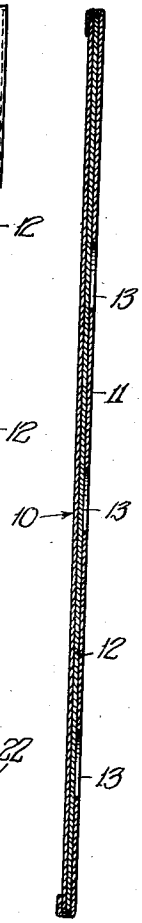


Fig. 2



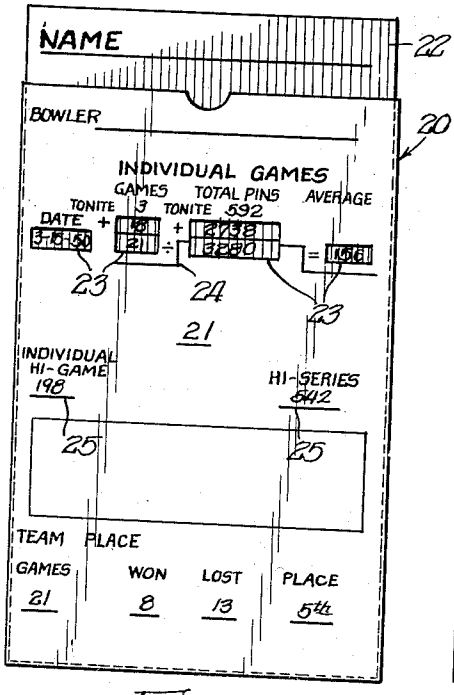


Fig. 3

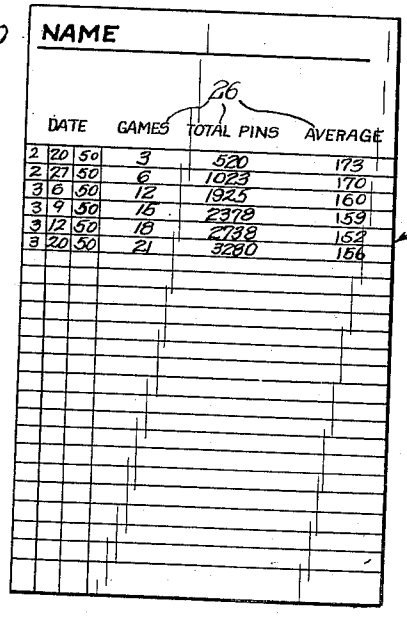


Fig. 4

INVENTOR.
Ralph R. Weber
BY
Watson D. Haubaugh
atty.

Patented Mar. 30, 1954

2,673,413

UNITED STATES PATENT OFFICE

2,673,413

SCORE CARD

Ralph R. Weber, Chicago, Ill.

Application March 17, 1950, Serial No. 150,231

1 Claim. (Cl. 40—65)

1

This invention relates generally to score cards and more particularly to an improved score keeping device especially adapted for use in keeping the score of games where it is desired to have a record of the average performance during a series of games or events.

The invention is described herein as embodied in a score card to be used by bowlers who desire to keep a record of the performance over a season or group of matches. The invention is not limited to score cards used in this game, however, for it is also useful in keeping records in many other sports such as baseball where a cumulative record of players' batting averages is frequently kept, or golf where the players' average number of strokes per round may be used in determining a handicap rating useful in comparing one golfer to another for tournament play.

Bowling leagues consisting of several teams have become popular. In such leagues it is customary for each team to bowl a series of one or more games against several or all of the other teams of the league usually on successive dates extending over the season. In such tournaments the players usually desire to keep a continuous record of their performance from match to match comparing the score of each game with the cumulative average score for the season.

To compute this average it is necessary to know the total number of games played as well as the total score for the entire series of games, the latter being divided by the former to determine the average score per game.

One object of this invention is to provide a convenient, simple score card by which the keeping of the individual and team scoring records is facilitated, the card having provision for ready computation of the bowler's average game score.

Another object is to provide a score card arrangement which is so simple that it may be used by even a child without likelihood of his committing an error in either recording his score or in calculating his average game score.

A further object is to provide a card and carrying case assembly which is durable in construction and which may be readily carried in the pocket or handbag.

A further object is to provide an improved carrying case which may be used over a period of several seasons, the individual score cards receivable in the case being replaced for each series or after they have been filled in with records.

A further object is to provide a permanent record card upon which the dividend, divisor and quotient developed in computing the average game score are displayed in the conventional positions they occupy in the division computation for ready understanding of their relationship.

2

Another object is to provide an arrangement whereby the division operation may be carried out on the case instead of the card so that the card need not be erased and may accommodate more permanent records in a given space. To facilitate this object the case is preferably formed of a durable material which may be written upon with a conventional pencil, yet may be readily erased to prepare it for the next computation.

Other objects and advantages of this invention will of course present themselves to those familiar with the art on reading the following specification in conjunction with the drawing and the appended claim.

In the drawing:

Fig. 1 is a plan view of one form of card and carrying case formed in accordance with this invention;

Fig. 2 is a section taken on line 2—2 of Fig. 1;

Fig. 3 is a plan view of a preferred form of card and carrying case; and

Fig. 4 is a plan view of the card of Fig. 3.

A basic concept of this invention is to provide a score card upon which a permanent record of the various scores may be kept and a durable carrying case or envelope in which the card is kept. One face of the case is provided with apertures which expose specific portions on the face of the card upon which the various scores may be written. On completion of each series the card is shifted to a new position to expose fresh surfaces beneath the apertures upon which the new scores may be written. To facilitate the determination of the average score per game the apertures in which the number of games, the total score, and the average score are to be written are arranged in a line in the positions they occupy in the division computation, the space upon the surface at the cover immediately beneath the total score aperture being unobstructed so that the various subtractions from the quotient conventionally employed in long division may be carried out thereon. The surface of the cover at this area is such that it can be written upon and readily erased so that successive computations may be made.

One embodiment 10 of my invention is illustrated in Figs. 1 and 2, and comprises a rectangular envelope 11 and a card 12 received in the envelope. The envelope is preferably formed of light colored opaque plastic or a durable paper such as Bristol board and is open at one end so

that the card 12 may be readily withdrawn or inserted.

The front of the envelope 11 is printed or otherwise inscribed with indicia as illustrated, and is provided with a plurality of apertures 13 arranged in rows. Each of the apertures 13 exposes a circular portion of the card 12 upon which a single digit may be written. Larger apertures in which several digits may be written can be substituted for the unitary digit apertures in this embodiment, if desired. At the top of the card, apertures for writing the number of games, the total pins or score, and the average are arranged in a line. To indicate that the total score is to be divided by the number of games to obtain the average, the conventional offset line 14 which separates the divisor, quotient, and dividend in a division computation is inscribed on the face of the envelope 11. A blank space 15 is left on the face of the enevelope immediately below the five apertures 13 in which the total pin score is written so that the player may write in the numerals which are subtracted from the quotient in performing the division calculation. Thus after writing in the number of games played and the total score of those games, the player is ready to divide the score by the number of games to obtain the average and may do so directly upon the face of the envelope merely writing the digits of the quotient in the proper spaces on the card as they become apparent in the computation. Since the divisor and the dividend need not be copied upon another sheet of paper, and since the quotient is written directly upon the card through the apertures, the possibility of error is greatly reduced, it being impossible to make errors in copying such as transposition of digits or writing of the wrong numeral.

The bottom row of apertures 13 provides a convenient place for writing in the results of the team competition, and the middle row provides a record of the individual's best game and series.

The spacing of the groups of apertures is such that the card 12 may be placed in the envelope 11 in any one of four different positions to expose fresh surfaces beneath the apertures 13 in each position. Two of such positions are illustrated in Fig. 1. The first position is with the card as shown. The second position is achieved by removing the card 12 from the envelope 11 and reversing it end for end. The numerals which have been previously written upon the card 12 then assume the position of the numerals shown in broken lines. In the drawing, the card is depicted as it would appear if the tabulated results of the previous series were inscribed on the top face thereof before reversal. The other two positions are achieved by turning the card over in the envelope and reversing it.

This novel relationship whereby four sets of entries may be written upon a single card is achieved by locating the apertures 13 in such fashion that the horizontal rows thereof are disposed at different distances from the horizontal center line through the card. The same res lt might be achieved by placing the apertures at different distances from the vertical center line, or a combination of the two. Since the apertures 13 are arranged in horizontal rows, however, it is much simpler to work out a satisfactory arrangement by merely using non-uniform vertical spacing for the different rows.

From the foregoing it will be appreciated that each card 12 may be used for four different series of tabulations or for four evenings of bowling. Thus this form of the invention is particularly well adapted for shorter tournaments, but may be used for longer tournaments simply by using more than one card in the same holder. Since the cards need not be printed, the additional cost is negligible.

The back side of the envelope 11 as well as that of the envelope of the embodiment shown in Fig. 3 preferably has simple instructions for using the score card printed thereon. Either side of the envelope may contain advertising matter if desired, for unused space is available for same.

The preferred embodiment 20 is illustrated in Figs. 3 and 4. Like the first embodiment it comprises an envelope 21 and a card 22 receivable in the envelope. The card 22, however, instead of being blank, is provided with a series of horizontal lines thereon which separate the entries and indicate the position of the card relative to the envelope. In this embodiment successive tabulations are entered in horizontal rows upon the card, one beneath the other. This is done not only to conserve space but also to further facilitate the division computation as will be described later.

Four elongated apertures 23 are arranged in a row across the enevelope 21 near the top thereof. The two apertures 23 near the middle of the card are twice as wide as the outer apertures spanning two of the spaces defined by the ruled lines on the card 22 so as to leave the previous entry visible.

The various apertures from left to right across the envelope are labeled: date, games, total pins, and average, respectively, and the conventional division indicating line 24 is inscribed on the envelope to indicate that the number representing total pins is to be divided by the number of games to calculate the average. This line of course cannot extend across the aperture 23 in which the total pin scores are written but a ruled line upon the card 21 will appear as a continuation of this line when the card is correctly positioned. An ample space below the total pins aperture is left blank so that the subtractions from the dividend may be made when dividing as in the first described embodiment.

To facilitate in adding the number of games and total pins, blank spaces labeled "Tonite" are left just above the two larger apertures where the number of games and their score for the bowling session may be written. The two plus signs to the left of these apertures indicate that the session scores are to be added to the previous total number of games and previous total pins to obtain the new totals for the tournament. Thus in this embodiment even the addition computations are made directly upon the score card and the possibility of error is substantially reduced.

Below the apertures suitable labeled spaces 25 are provided for indicating the best individual pereformance and the team performance.

The card 22 must be partially withdrawn from the envelope 21 when making entries thereon and when it is desired to refer to the various records, but it may of course be stored in the envelope in a fully protected position when not in use as is the card in the first embodiment. Another advantage of the preferred embodiment 20 is the fact that the card 22 serves as a very legible record when removed from the envelope, and to this end the various columns of numbers may be provided with headings 26 as illustrated in Fig. 4. The headings, however, may be eliminated if desired, and the card is still usable with the envelope 21. As a matter of fact, the horizontal lines on

the card are not absolutely essential, for a careful player can keep a very legible record on a blank card.

The envelope **21** is preferably closed on three sides and open on the fourth. It may be open on both ends if desired, and, in fact, may comprise merely a rectangular sheet of plastic having the two side edges reversely bent to form flanges into which the side edges of the card **22** may be received. In some cases it has proved desirable to provide additional apertures on the back of the envelope **21** for the recording of other data on the rear side of the card **22**. It is preferred, however, to provide a full back which space is available for advertising data and instructions.

From the foregoing it will be apparent that a greatly improved score card has been provided which is particularly well suited for maintaining records of a bowler's performance but which is also readily adaptable for use in keeping other records where an average of performance is desired.

Various changes or modifications in addition to those set forth herein may be made without departing from the spirit of this invention whose scope is commensurate with the following claim:

What is claimed is:

A score card device for the pencil recordation of arithmetically related data which comprises, an envelope case member including coextensive side panels and an insertable card member adapted to have slidable snug-fitting reception within said case member, said case member having in one of its side panels apertures arranged in respect to each other in computation placement to expose certain areas of the within

contained card member upon which may be recorded the known and unknown arithmetic functions of the dividend, the advisor and quotient of a long division computation, and record areas on said panels adjacent said apertures for the pencil recordation thereon of the computational processes whereby the unknown functions are calculated from the known functions so that by extracting the card member from the case member the pencil recorded computational processes may be erased from the case member without affecting the functions recorded on the card member and then, upon restoration of the card member, constitute a display of the function recordations without the computational recordations, said apertures being displaced from opposite longitudinal edges of the card unequal distances whereby the card can be turned end for end without coincidence between the record areas in one position of the card with the record areas in any other position of the card in the envelope case.

RALPH R. WEBER.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
223,569	White	Jan. 13, 1880
1,360,726	Crook	Nov. 30, 1920
1,555,190	Currin	Sept. 29, 1925
1,603,847	Harper	Oct. 19, 1926
1,732,983	Orchard	Oct. 22, 1929
1,751,106	Shelledy	Mar. 18, 1930
1,785,866	Huene	Dec. 23, 1930
1,957,112	Smith	May 1, 1934
2,171,873	Gould	Sept. 5, 1939