Feb. 16, 1971 C. R. GULBRANSEN, SR., ET AL 3,562,940
CALCULATOR
Filed Sept. 23, 1968 2 Sheets-Sheet 1

FIG. 1

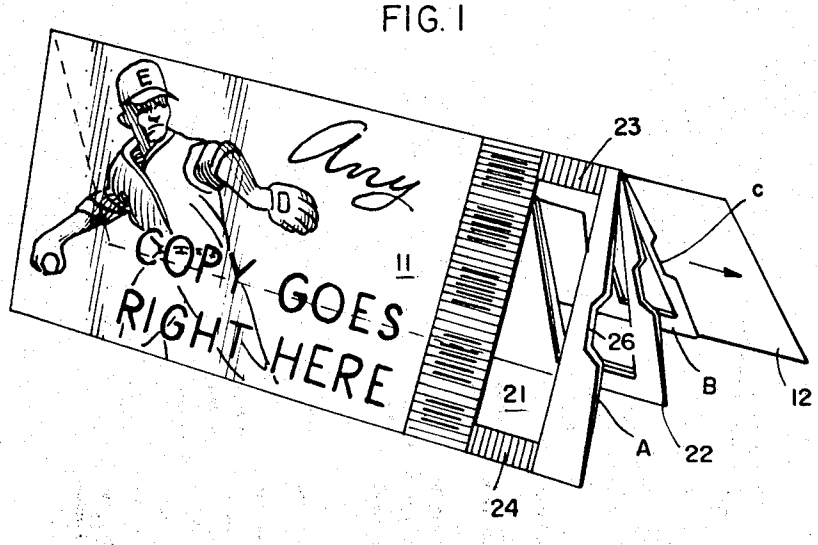


FIG. 2

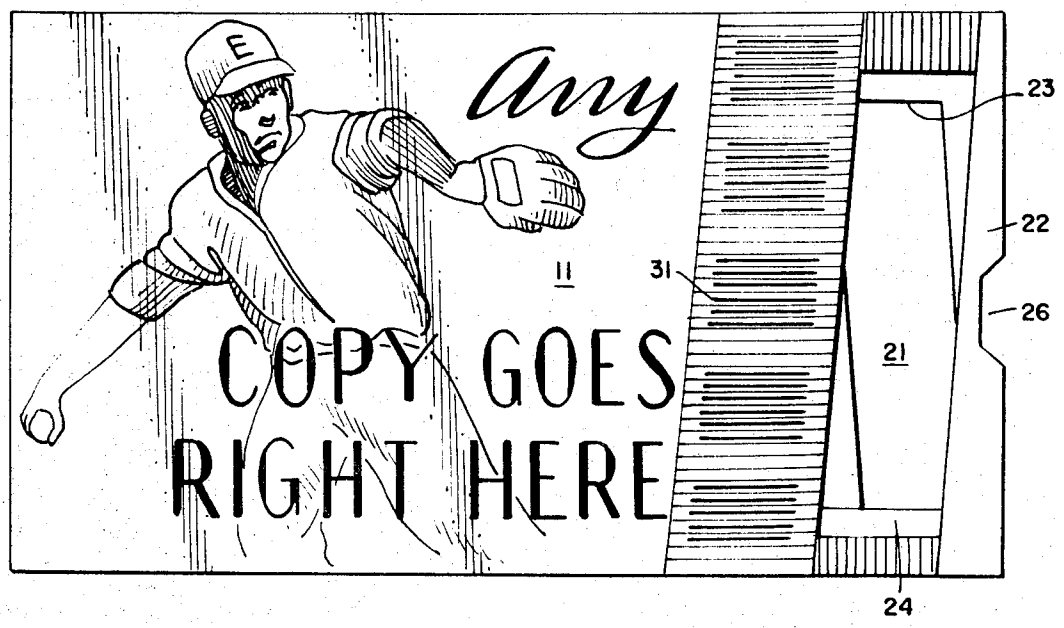
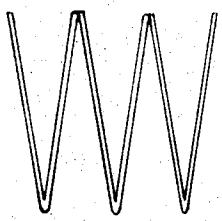


FIG. 9



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CALCULATOR

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FIG. 3

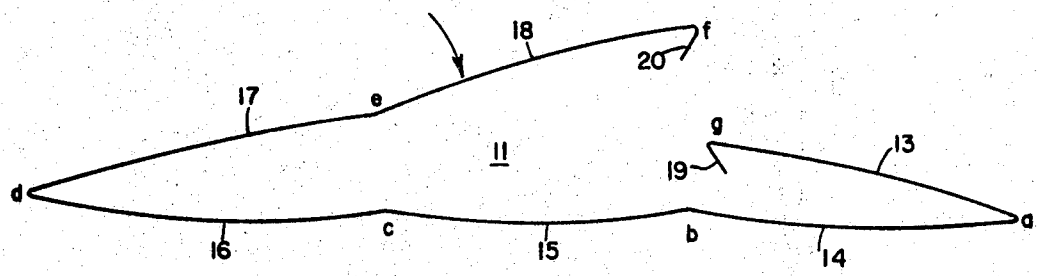


FIG. 4

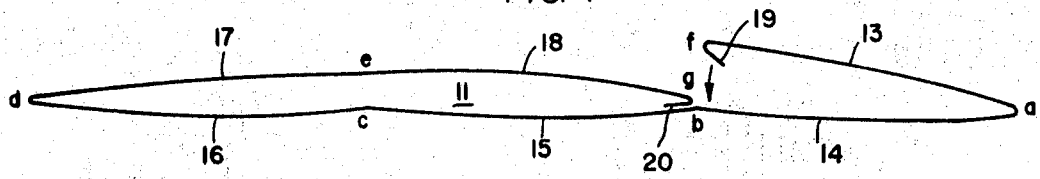


FIG. 5

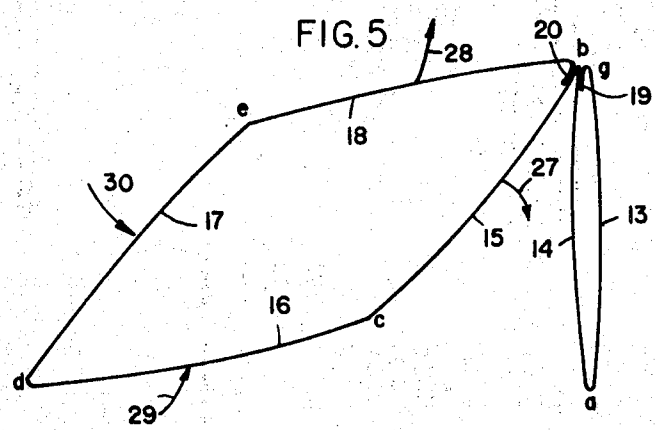


FIG. 6

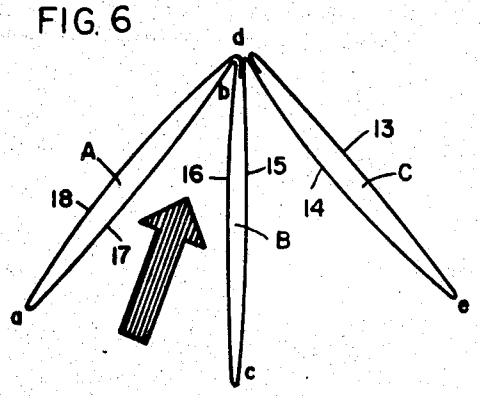
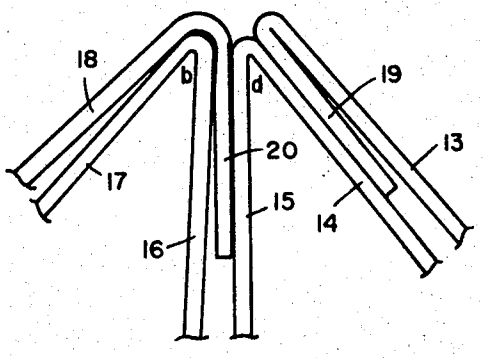


FIG. 7



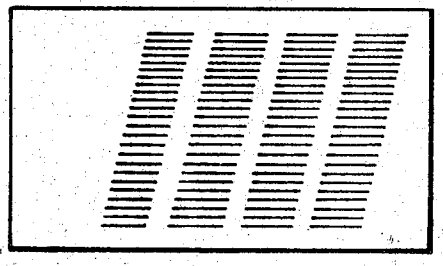


FIG. 8

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3,562,940

CALCULATOR

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Filed Sept. 23, 1968, Ser. No. 761,714
Int. Cl. G09f 11/30
U.S. Cl. 40—65 9 Claims

ABSTRACT OF THE DISCLOSURE

The essential concept of this invention involves thin, flexible, planar, scored material folded to form a series of superimposed, hinged, open-end pockets each slidably embracing a comparable thin, flexible, planar strip, the exposed portions of which respective *pocket* and *strip* parts have printed thereon related *indicia* and *data* whereby the shifting of the strips in the pockets juxtaposes the indicia and data so as to permit determining a variety of desired factors.

This invention relates to a special type of calculator structured by the folding of scored, flexible, planar material into such superimposed relationship as to define a series of pockets each embracing a relatively-shiftable strip for factoring exposed indicia and data on the exposed faces of the pockets and strips.

The main objects of this invention are; to provide a special, simple type of calculator involving scored, flexible stock folded into a plurality of hinged, open-end pockets each embracing a relatively shiftable planar part of similar material to permit factoring juxtaposed indicia and data printed on the respective parts, to provide a calculator of this kind wherein each of the pocket sections has a transverse window opening with the printed indicia arranged adjacently along the opening, and each shiftable strip has a plurality of transverse columns of pertinent data; to provide a calculator of this kind wherein exposed portions of the pocket material has substantial areas for printed information of interest to the user of this calculator; to provide a calculator of this kind especially adapted for arranging thereon indicia and data relating to any of the major sports; and to provide a calculator of this kind of such simple construction as to make its manufacturing and marketing realtively inexpensive and its use highly gratifying to the recipient thereof.

In the adaptations shown in the accompanying drawings:

FIG. 1 is a perspective view of the pocket part of a calculator, constructed in accordance with this invention, with an insert part shown in dotted outline in one of the three pockets;

FIG. 2 is an enlarged face view of what is shown in FIG. 1 with the slidable parts omitted;

FIG. 3 is a diagrammatic end view of a scored piece of material ready for folding and adhering to form the pocket part of the calculator;

FIG. 4 represents the next step in disposing the parts preparatory to adhering the two flaps to other two of the main sections of the material to form one of the pockets;

FIG. 5 represents the further step of adhering the two flaps along the two sections defined by the second score, inwardly of the one flap, in preparation for folding in the two sections to complete the two other pockets;

FIG. 6 shows these folded-in sections with a view to effecting the final adhesion of the several sections in their desired final arrangement;

FIG. 7 is a much-enlarged, fragmentary view showing where the adhesive has secured the sections in their final use relationship;

FIG. 8 is a reduced size view of one of the shiftable parts indicating the arrangement of data thereon; and

FIG. 9 is an end view to show how three separate pieces of scored material could be combined into the pocket section of such a calculator.

A calculator embodying the foregoing concept, is shown as structured from a thin, flexible, planar rectangular piece of calendered paper-stock material to form the pocket parts **11** embracing the shiftable parts **12**. The size and arrangement of these respective parts **11** and **12** are entirely different, as is most apparent from the drawings. However, both parts bear printing on the exposed faces thereof; that on the one part being referred hereinafter to as "indicia" and that on the other part being referred to hereinafter as "data." These indicia and data are of such a nature and so arranged as to permit the use of the calculator to selectively position the two parts to juxtapose the data and the indicia for the purpose of determining factors desired by the user of the calculator.

The pocket part **11**, in its preferred form, is developed from a selected length and width of planar material which is transversely scored to permit its being folded to form three pockets with the completely concealed adhesive holding them, as indicated in FIGS. 6 and 7. To this end a piece of material, of the above noted character and dimension, has seven scores, *a, b, c, d, e, f* and *g*. The scores *a, b, c, d* and *e* are spaced apart equal distances, longitudinally of the piece of material. These scores define the six sections **13, 14, 15, 16, 17** and **18** required to form the three pockets A, B and C, and the two flaps **19** and **20**. (FIGS. 1 and 6).

In this preferred form, the scores *f* and *g* are positioned a short distance inwardly from the respective ends of the material to provide the narrow flaps **19** and **20**. It is the provision of these flaps **19** and **20** and the subsequently-explained procedure in folding and adhering the six sections **13–18** that make possible the significant feature of concealing the adhesive that firmly secures these sections **13–18** in this pocket-relationship, as will be explained presently.

As shown in FIGS. 1 and 2 each of these sections **13, 14, 15, 16, 17** and **18** has a window **21** formed therein. Each such window is of rectangular contour and is disposed transversely of the respective section, adjacently inward from the right-hand end thereof. Preferably these windows **21** are angled slightly transversely of the respective sections **13–18**. Such angled disposition and length of these windows **21** leaves a narrow bordering portion **22** and upper and lower short end portions **23** and **24**. Each bordering portion **22** is recessed at **26** to provide for a finger-grip on the respectively embraced, shiftable part **12**, to permit the opposite shifting thereof in the respective pockets A, B or C.

The folding of the scored planar material and effecting the concealed adhering of the sections **13–18** adjacently along scores is achieved as follows:

The planar part first is folded along the scores *a*, *b*, *c*, *d*, *e*, *f* and *g* to dispose the sections **13**, **14**, **15**, **16**, **17** and **18** and the flaps **19** and **20** somewhat as shown in FIG. 3 The requisite adhesive then is applied along the exposed faces of the flaps **19** and **20** and inwardly along the fold of the flap *f*. The sections **15–18** then are disposed substantially as shown in FIG. 4 to permit the flap **20**—with its adhesive—to be pressed down firmly against section **15**, inwardly along the score *b*. Thereupon, the flap **19** is pressed down firmly against the section **15** outwardly along the score *b*.

That part of the assembly being effected, the sections **15** and **18** are pressured outwardly away from each other as indicated by the arrows **27** and **28**. This will separate the sections **16** and **17** so as to permit a reverse folding-in of the two sections **16** and **17** as shown by the arrows **29** and **30**, and dispose them upwardly in between the sections **15** and **18** as shown in FIG. 6. Thus, the scored planar material when finally folded becomes adhered solely along these inwardly hidden areas to form the three pockets A, B and C. FIG. 7 reveals how completely concealed is the adhesive which secures these pockets A, B and C for their embraced use of the respective shiftable parts **12**.

The shiftable parts **12**, such as indicated in FIG. 2, are planar material substantially, if not precisely, the same as that for the pocket part. These shiftable parts **12** are dimensioned for easy shifting within the respective pockets A, B and C.

Obviously, prior to the scoring of the planar material, that is to be converted into the pockets A, B and C, and the slidable parts **12** have the desired indicia and data printed thereon. As FIGS. 1 and 2 show, major portions of the V-shaped sections are intended to have other subject matter, such as advertising or other information, printed thereon.

In an initial development of such a calculator, the respective pockets and shiftable parts **11** and **12** bore indicia and data, respectively, relating to baseball. The transverse marginal portion of these pocket parts, inwardly adjacent the windows **21**, had printed indicia relating to the various aspects of the World Series of Baseball. For example, on the front face of pocket A and the back face of pocket C was indicia relating to "winner-loser teams and the batting and pitching leaders." The similar intermediate marginal portions of these pockets had indicia relating to the "Player Roster," followed by a listing of "catchers, infielders, outfielders, pitchers, catchers, etc."

The shiftable parts **12** had on one face columns of data relating to "teams and players involved for the years from 1935 to 1966." On the other face of these parts was data relating to the certain "player personnel."

In this initial development the pocket parts **11** and the shiftable parts **12** were of contrasting light colors. The narrow end parts **23** and **24** and a narrow portion **31**, inwardly adjacent each opening **21**, had a background of deep colors—red and blue, respectively. The remaining major exterior portions of the pocket parts **11** bore advertising matter or additional data about the World Series games.

Also, in this initial development, the shiftable parts **12** were of a color strikingly contrasting with the other portions of the pocket part **11**. The color was red.

A user of this calculator has only to move a shiftable part **12** in the respective pocket **11** to expose a selected column of data thereon opposite the indicia on the bordering portion **22** to determine the desired related factors.

Such a calculator has a supplemental advantage in

that the possessor thereof may deposit in any of the pocket parts **11** proper-size or folded sheets bearing pertinent data which it is desired to save for the time being.

Such a structural calculator is used in the following manner:

One desiring to acquaint oneself about certain factors relating to the above-indicated subject matter, would shift one of the parts **12**, in its respective pocket part **11**, to bring a certain column of data on the part **12** into registration with the pertinent indicia adjacent the selected window **21**. Thereupon, the pertinent factors would be determined.

Although the preference is for structuring this type of pocket part **11** in the form shown in FIGS. 3 through 7, it is possible to form just such a pocket part **11** from three separate V-shaped pieces of material, as shown in FIG. 9. In such an assembly, however, an adhesive, preferably in the form of a strip, would be folded over the abutting ends of the inner and two outside pieces, with a supplement adhesive strip embracing the outer portions of the two outside V-strips, in the final assembled relationship.

Variations and modifications in the details of structure and arrangement of the parts may be resorted to within the spirit and coverage of the appended claims.

We claim:

1. A calculator comprising a rectangular-shaped piece of thin, flexible, planar, paper-like material transversely scored to permit folding with the opposite transverse perimeters sealed together to define V-shaped sections forming open-end pockets, a planar part of similar material shiftably embraced in each of the pockets and having printed on the faces thereof predetermined series of data, each portion of the V-shaped sections having a window therein with bordering indicia related to the data on the respective shiftable parts, the planar part being individually shiftable in the respective pockets to juxtapose the data and indicia to permit determining desired factors and wherein the V-shaped sections are formed from the planar, paper-like material having five main transverse scores dividing the material into six uniform sections, the material being folded and adhered together along the transverse ends of the material and along portions adjacent the second scores inwardly from the opposite ends of the material to form three pockets.

2. A calculator as set forth in claim **1** wherein the V-shaped sections are adhered together along the upper edges of the directly opposed portions of the adjacent sections.

3. A calculator as set forth in claim **1** wherein the opposite ends of the planar material have integrated, narrow flaps both of which flaps are adhered to portions of the two sections adjacent one of the second transverse score inwardly from one end of the planar material and one of the flaps is also adhered along portions of the two sections adjacent the second score inwardly from the other end of the planar material.

4. A calculator as set forth in claim **1** wherein the openings in the V-shaped sections are of rectangular contour disposed transversely of each section.

5. A calculator as set forth in claim **1** wherein the openings in the V-shaped sections are of rectangular contour disposed transversely of each section and are located adjacent one end of the respective pockets whereby the remaining exposed area is used for other printed matter.

6. A calculator comprising, a rectangular-shaped piece of thin, flexible, planar, paper-like material having seven transverse scores, two of the scores being inwardly-adjacent the respective opposite ends of the material to define narrow end flaps, the intermediate five scores being uniformly spaced between the two end scores to divide the material into six equal sections, the material being foldable along the several scores to form three open-end pockets with the end flaps adehered along narrow por-

tions of the two sections adjacent the second score inwardly from the one end flap, the two sections adjacent the second score inwardly from the other end flap being adhered adjacently along the score that defines the other flap, each of the V-shaped sections having a window therein with bordering indicia, a planar part of similar material slidably embraced in each of the pockets and having on the respective faces thereof series of data whereby the shifting of the respective planar parts in the respective pockets disposes the data thereon adjacent the indicia on the pockets to permit determining desired factors.

7. A calculator as set forth in claim 6 wherein the indicia on the pockets and the data on the embraced planar parts relate to certain sport activities.

8. A calculator as set forth in claim 6 wherein the V-shaped sections have the openings of rectangular shape and disposed at slight transverse angles through which the data on the shiftable parts is juxtaposed to the indicia on the pockets.

9. A calculator as set forth in claim 8 wherein the portions of the pockets parts to the left of the opening have thereon advertising.

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U.S. Cl. X.R.

40—102