Nov. 19, 1940. W. W. WESNER 2,222,272

CALCULATOR

Filed Feb. 29, 1940

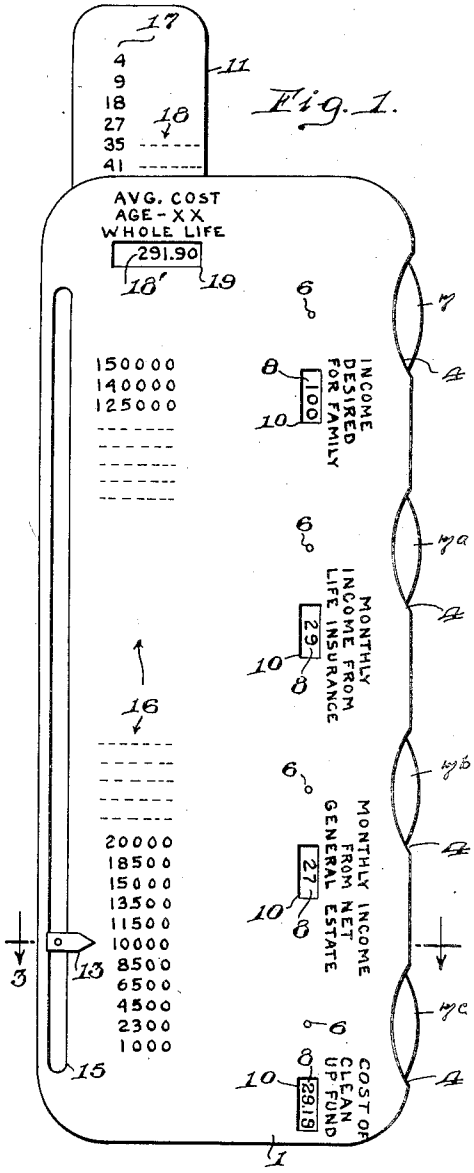


Fig. 1.

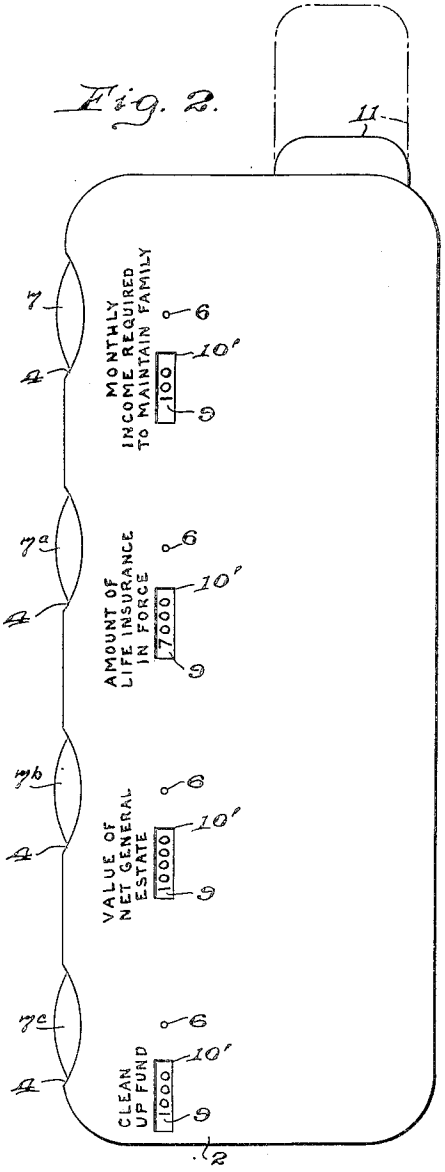


Fig. 2.

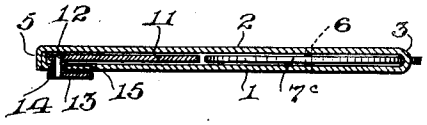


Fig. 3.

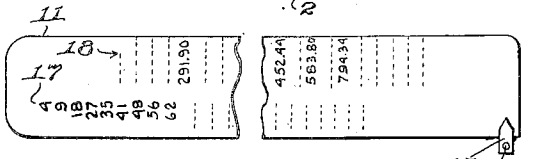


Fig. 4.

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CALCULATOR

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2 Claims. (Cl. 35—24)

The object of the invention is to provide improvements in calculators broadly, but more particularly in a type of calculator which is especially adapted for use by insurance salesmen, and by means of which a series of controlling financial factors are visualized and correlated.

Another and more specific object is to provide a device of this character, which can be carried in the inside coat pocket without bulging the coat or taking up space that is valuable and necessary for the carrying of other desired papers and the like.

A further object is to provide a device of this character, which is nicely adapted for low cost quantity production by means of punch-and-die machines from sheet metal and other available substances, which are readily punched and formable as hereinafter described.

Still another object is to provide a device of this character, which comprises a case preferably formed from a single sheet of material, folded along one edge through which extend apertures for the protrusion of discs, which in turn are rotatably mounted between the opposite sides of said case.

A still further object is to provide also in said case a longitudinally adjustable sliding element, having a pointer extension which projects through a slot in said case to figures carried in a column upon said case, while said slide itself carries additional figures which are readable with respect to an edge of said case, the two sets of figures being correlated.

With the objects thus briefly stated, the invention comprises further details of construction and operation, which are hereinafter fully set forth in the following description, when read in conjunction with the accompanying drawing, in which Fig. 1 is a front elevational view of a device comprising one embodiment of the invention; Fig. 2 is a rear elevational view of the same; Fig. 3 is a section on the line 3—3 of Fig. 1; and Fig. 4 is an elevational view of the slidable element per se.

Referring to the drawing, a case is shown as comprising spaced front and rear walls 1 and 2, preferably formed from a single integral sheet of metal, Celluloid acetate, or the like, their edges at one side 3 being connected by a transversely folded portion provided with spaced apertures 4, while the opposite edges of said walls are preferably overlapped and secured together at 5. Spaced pins 6 extend between said walls and carry rotatable discs 7, 7a, 7b and 7c, portions of which protrude through said apertures 4 for engagement by the fingers of the operator, in order that said discs can be rotated as desired. At the same time sets of figures 8 and 9 carried by the obverse and reverse sides of said discs are visible through windows 10 and 10' in said front and rear walls, respectively.

It will be noted that between said discs and the opposite overlapped edge portions of said case there is a space that is substantially filled by a slidable element 11, which element is maintained against any substantial degree of angular displacement by said overlapped edge portions on the one side and said discs on the other. Said element is provided with an outwardly directed pin 12, the outer end of which carries a laterally directed pointer 13, which is spaced from the outer surface of said front wall by means of a washer or the like 14. Said pin and washer project through a longitudinally extending slot 15 in said front wall, so that as said element is adjusted longitudinally in said case, said pointer will be directed towards figures in a column 16 upon the outer surface of said front wall. These figures correspond with the figures in a vertical column 17 carried by the front of said element, to one side of a second column of figures 18, one of which 18' is viewed through a window 19 in said front wall.

Referring now more specifically to the various factors involved, the several discs are provided with figures visible through the windows 10 and 10', which progressively from top to bottom represent upon the reverse of the first disc 7 the "monthly income required to maintain family" of the insured and upon its obverse the periodical "income desired for family"; upon the reverse of the second disc 7a the "amount of life insurance in force" and upon its obverse the periodical "monthly income from life insurance" already in force; upon the reverse of the third disc 7b the "value of the net general estate" and upon its observe the "monthly income from the net general estate"; upon the reverse of the fourth disc 7c the value of the so-called "clean-up fund" desired to liquidate miscellaneous debts, educational and similar expenses, and upon its obverse the rate of premium or cost to provide for such "clean-up funds." The column 16 comprises a set of figures representing the face value of additional insurance necessary to be taken out in order to provide the several factors hereinbefore mentioned, while the figures in column 17 represent the periodical additional income necessary to meet the total of the same factors above listed, and

the column of figures 18 represent the "average cost" per year of such additional insurance. As shown in the drawings, a particular figure in the column 16 is indicated by the pointer 13, while the corresponding figure in the column 18 is simultaneously visible through the window 19, when the corresponding figure in the column 17 is first visible above the upper edge of the case 1—2.

In the operation of this device and the development of the method of computation for which it is especially designed, the second disc 7a is rotated until the "amount of life insurance in force" is visible through the corresponding window. From this figure there is then subtracted the amount desired for the "clean-up fund" shown in the lowest front window after the fourth disc 7c has been rotated to that figure. Upon the reverse of said fourth disc 7c there will then obviously appear the cost of this additional "clean-up fund," while upon the obverse of said second disc 7a will appear the "monthly income from life insurance" already in force, after the "clean-up fund" has been deducted from the principle shown upon said second disc. The third disc 7b is then rotated sufficiently to show upon its reverse the "value of the net general estate," while the obverse will simultaneously show the "monthly income from the net general estate," both insurance and general estate income being computed upon any desired basis, such as 5% represented by the drawing, or 4%, 4½%, or whatever other basis as may be most likely to obtain. The monthly incomes both from net insurance in force and the general estate are then added together, and the total subtracted from whatever figure represents the "income desired for family," and to which last-mentioned figure the first disc 7 is rotated. The periodical difference to be made up or provided for is indicated upon the column 17, as the element 11 is shifted to the point where such difference is just visible, the pointer then indicating the face value of the additional amount of insurance required to provide for the deficiency, and the figure visible through the window 19 indicating the annular cost of such additional insurance. This last-mentioned figure is calculated for a given age, or a plurality of smaller (in size rather than in amount) figures may be shown to represent different ages, between or with respect to which the figure corresponding with the exact age of the insured can be determined by interpolation.

In general, it is to be understood that the several figures given are purely illustrative, and are, therefore, employed in order merely to illustrate the use of the device for the purposes outlined herein. Thus, the device may be printed for various companies, for various types of insurance, for various ages, and possibly other factors than those specifically set forth herein, but while still following the method and broad principles of arrangement and operation hereinbefore described. Also, while the computation in the example herein given first subtracts the "clean-up fund" from the face value of the insurance already in force, the "clean-up" figure may instead be subtracted from the face value of the general estate, or after adding together the face values of the insurance in force and of the general estate, the "clean-up fund" may be added to the resulting total.

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

1. An insurance calculator, comprising a flat hollow case having spaced front and rear walls, one edge being cut away to provide spaced apertures, rotatable discs carried by and between said walls spaced from the opposite edge and protruding through said apertures, windows in said front and rear walls through which selective figures carried by said discs can be viewed, a slidable element within and adjacent to the opposite edge of said case, said element being slidable between and guided in a rectilinear path by the adjacent edge wall and said discs, a longitudinally extending slot in said front wall, correlated figures carried by said front wall, a window in said front wall through which figures disposed laterally upon said element can be viewed, and a pointer carried by said element extending through said slot and operative to point to that figure upon the front wall which corresponds with the figure carried by said element which is just visible beyond the end of said case, as the position of said element is varied.

2. An insurance calculator, comprising a flat hollow case having spaced front and rear walls, one edge being cut away to provide spaced apertures, a plurality of rotatable discs carried by and between said walls spaced from the opposite edge and protruding through said apertures, one of which discs carries figures upon one side adapted to represent a "clean-up fund" and upon the opposite side figures adapted to represent the premium cost for providing for such "clean-up fund," a second disc carrying figures adapted to represent the amount of periodical income desired for survivors, a third disc carrying figures adapted to represent the periodical income provided for by insurance already in force, a third disc carrying figures adapted to represent the periodical income derivable from the estate other than insurance, windows in said front and rear walls through which selective figures carried by said discs can be viewed, a slidable element within and adjacent to the opposite edge of said case, said element being slidable between and guided in a rectilinear path by the adjacent edge wall and said discs, a longitudinally extending slot in said front wall, correlated figures carried by said element and said front wall, a window in said front wall through which figures disposed laterally upon said element can be viewed, and a pointer carried by said element extending through said slot and operative to point to that figure upon the front wall which corresponds with the figure carried by said element which is just visible beyond the end of said case, as the position of said element is varied, the figures upon said front wall opposite said pointer being adapted to represent the face value of insurance necessary to provide the total additional periodical income represented by the figure visible upon said element above said case, while the figure upon said element visible through said last-mentioned window is adapted to represent the annual premium for the additional insurance required.

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