July 20, 1954 R. GIUNTINI 2,684,202

FOREIGN MONEY VALUE CALCULATING DEVICE

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Fig. 1.

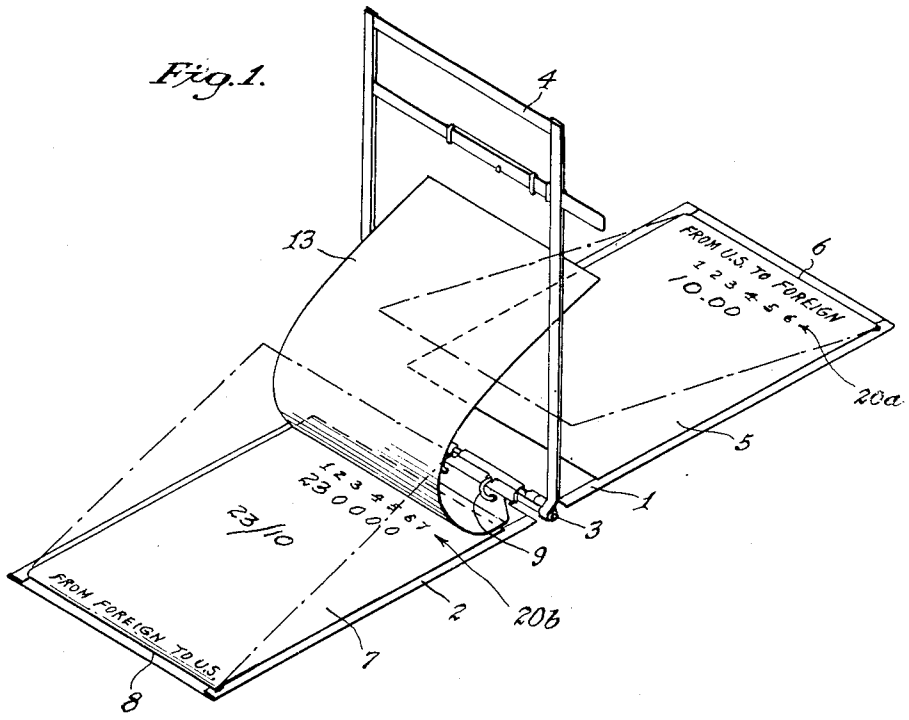
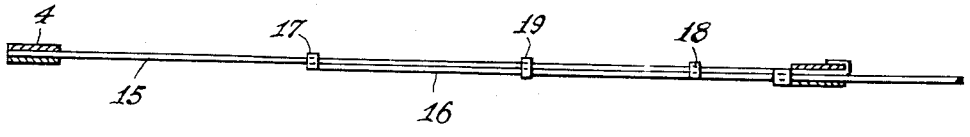


Fig. 2.



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Fig. 3.

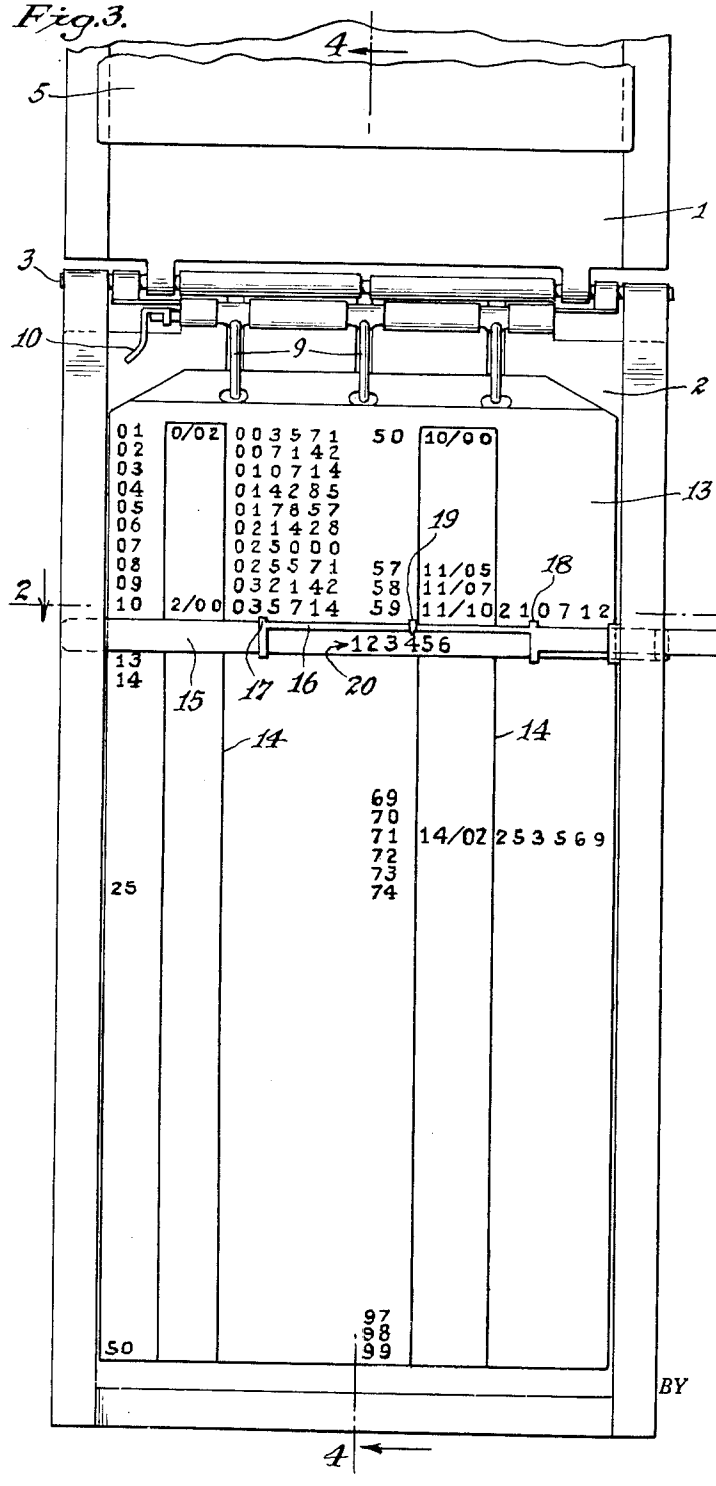
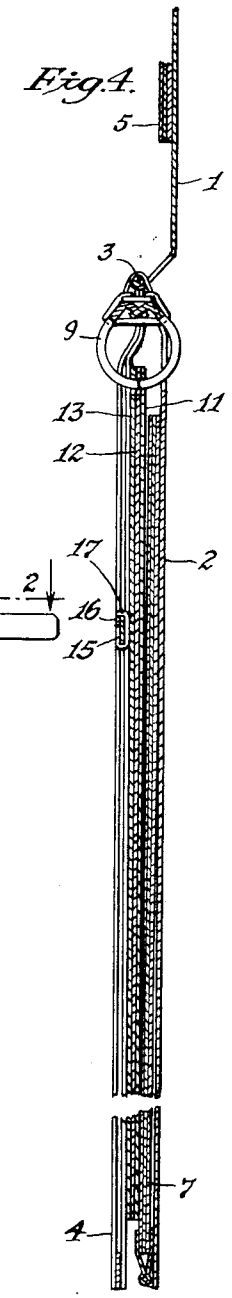


Fig. 4.



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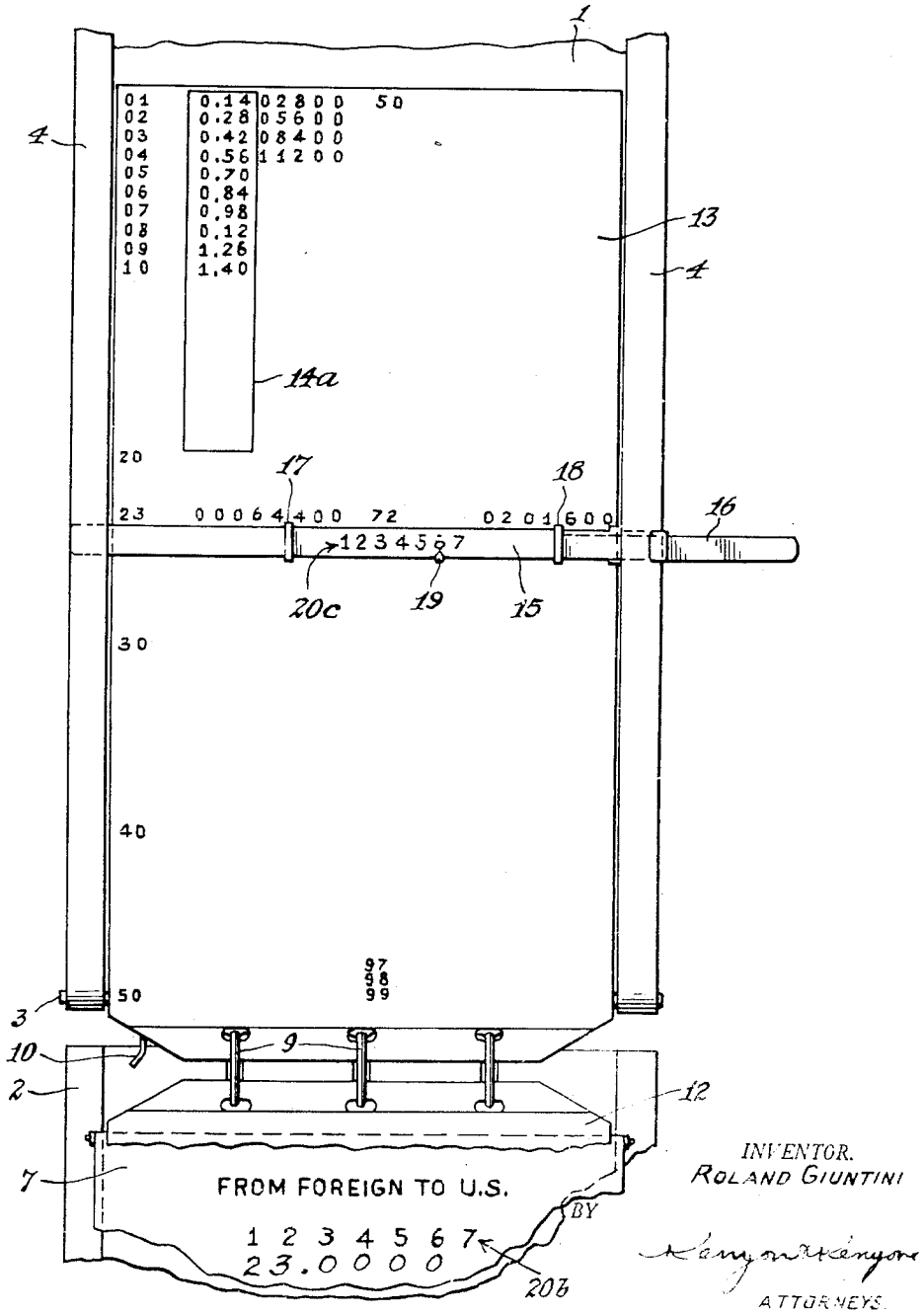
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Fig. 5.



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FOREIGN MONEY VALUE CALCULATING DEVICE

Roland Giuntini, Kew Gardens, N. Y.

Application February 26, 1953, Serial No. 339,124

7 Claims. (Cl. 235—89)

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This invention relates to a device for translating a sum of money of one nation into substantially an equivalent sum of money of another nation.

One object is to provide a calculating device of this type in an inexpensive form which may be operated simply without requiring extensive instructions. Another object is to provide a device of the described kind which may be used for converting a wide range of money values of one nation into the equivalent values of money of any of a number of other nations. Still another object is to provide such a device in a form sufficiently inexpensive to permit it to be given away for advertising purposes and to be used by the average person.

A specific example of the invention is illustrated by the accompanying drawings in which:

Fig. 1 is a perspective view of the device;

Fig. 2 is a cross section taken on the line 2—2 in Fig. 3;

Fig. 3 is a plan view of the device as it is used to translate a sum of United States money into an equivalent sum of British money;

Fig. 4 is a cross section taken on the line 4—4 in Fig. 3; and

Fig. 5 is a plan view of the device as it is used to convert a sum of British money into an equivalent United States money value.

As shown by Fig. 1 the device is in the form of a book comprising outer cover panels 1 and 2 which are connected together by a hinge 3 which also hinges a rectangular rigid frame 4 between the cover panels. The cover panel 1 has an inside, pressure-sensitive adhesive layer over which a translucent plastic leaf 5 is positioned by being hinged to the cover panel 1 along its outer edge portion 6. The use of a stylus, such as a lead pencil, on the leaf 5 permits it to be marked by causing it to adhere to the adhesive, and lifting of the leaf 5, as shown by the broken lines in Fig. 1, causes the marks to disappear. Thus a scratch pad is provided. The cover panel 2 is similarly provided with a scratch pad by an inside pressure-sensitive adhesive layer and a translucent plastic leaf 7 hinged along the panel's outer edge portion 8.

Near the hinge 3 a plurality of separable rings 9 are mounted, these being provided with an operator 10 whereby they may be snapped opened or closed as in the case of a looseleaf notebook. These rings detachably mount a plurality of double-faced leaves 11, 12 and 13, and each of these leaves carries on one side a table for converting the money value of one nation to another while

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its other side carries a table for converting money values of the second nation into those of the first nation. Any number of leaves may be provided and they may be replaced if the rate of exchange changes, so the device may be kept up to date and is adapted for general use. Ordinarily the number of leaves will be confined to the countries where the device is to be used, so as to keep the book form as slim as possible.

The table on each of the various leaves 11 through 13 is in the form of a vertical table comprising a mathematical progression of numbers each horizontally followed by the product of the number multiplied by the rate of money exchange between the nations. This is shown by Figs. 3 and 5; Fig. 3 showing a table for converting United States money into British money, while Fig. 5 shows the table for converting British money sums into United States currency values. These tables are on the opposite side of leaf 13 as the device is shown by Fig. 4.

In the table of Fig. 3 a sterling pound is assumed to be worth $2.80 in United States money and the table is developed by dividing this sum into one so as to obtain the value in sterling pounds of one United States dollar. This value is then multiplied by two, then by three and so on throughout the table to obtain the value in pounds of from one to ninety-nine United States dollars. The vertical tables enclosed by the blocks or outlines 14 give the values in shillings and pence for the decimal fractions of pounds represented by the numbers of the mathematical progression of numbers which appears opposite and to the left in each instance.

The frame 4 mounts a horizontal sight bar 15 so that the latter may slide vertically for alignment with the various values. This sight bar carries a horizontal slider 16 which may be moved horizontally on the sight bar and which is constructed to provide decimal point indicators 17 and 18 whose positions are determined by an arrow 19 on the slider and cooperating with a scale or indicia 20 on the sight bar 15. The parts 17, 18 and 19 are immovably related to each other and they shift horizontally as a group by sliding on the sight bar 15. The scale 20 is duplicated at 20a on the scratch pad 5 and in a permanent manner.

To convert a United States money sum to sterling the sum is written on the pad 5 beneath the scale 20a as is shown in the case of $10.00 in Fig. 1. The scale 20a shows that this is a four digit sum so the arrow 19 is set to the numeral 4 on the scale 20 on the sight bar

15. Then the sight bar is aligned with the number 10 of the mathematical progression of numbers, the decimal point indicator 17 being automatically positioned, and the sum indicated is 3.57 pounds. Next the sight bar 15 is aligned with the numeral 57 in the mathematical progression and by the table in the block 14 it is found that this equals 11 shillings, 5 pence, whereby the conversion to sterling is completed.

Since the mathematical progression of numbers ranges from one to ninety-nine any United States sum can be converted to an equivalent British value by using the slider to figure the decimal point. Whenever the sum is represented by two digits followed only by ciphers the sum is written under the scale 20*a* in full and the slider arrow 19 is set to the corresponding number on the scale 20, whereby to fix the decimal of the British sum. In the case of a large number of more than two digits the answer is first obtained for a sum equal to the first two digits followed by ciphers only, then for a smaller sum equal to the next two digits followed by ciphers only and finally for the sum equal to the last one or two digits followed by ciphers only. Thus the large number is handled by breaking it into smaller numbers each of which is set beneath the scale 20*a* with the first digit of each number beneath the first digit of the scale in each instance. In each case the arrow 19 is set opposite to the appropriate scale number to locate the decimal point properly. This provides a series of answers, the scratch pad 5 being used to set down each answer and to add the answers to provide the total answer desired.

The conversion table enclosed by the outlines or blocks 14 are unnecessary in the case of foreign money that follows the decimal system. The table is necessary only in the case of British and certain other foreign money which does not follow the decimal system.

The other side of the leaf 13 carries the table for converting British money sums to equivalent United States money sums. This is shown by Fig. 5, it being understood that by swinging the leaf through the frame 4 that the latter and the sight bar and slider are operative.

The foreign to United States money table is developed by putting down its corresponding dollar value and then multiplying this value by two, then by three and so on up to ninety-nine. This has been done in Fig. 5 in the case of the British pound since Fig. 5 shows the reverse side of leaf 13, respecting the side shown by Fig. 3. In this case a single relatively small vertical block 14*a* encloses the dollar value of shillings appropriately positioned horizontally opposite to the mathematical progression. This is, of course, unnecessary in the case of foreign money following the decimal system.

The scratch pad 7 is provided with a scale 20*b*, like the scale 20*a* excepting as to extent, and the British or other foreign currency sum is written on the scratch pad beneath the scale 20*b*. So as to properly locate the decimal point it may be necessary to arbitrarily add ciphers to the sum written down for the purpose of obtaining a decimal point guide number, and each table may be marked to show the number of such ciphers required. With the table of Fig. 5 it is necessary to add four ciphers, thus giving the number six as a guide number so that the arrow 19 may be set opposite to this number on the scale 20*c*.

Using 23 pounds, 10 shillings as the British sum to be converted to a United States dollar sum, and with the number 23 followed by four ciphers jotted on the pad 7, the arrow 19 is set to the 6 and the sight bar 15 is aligned with 23 so as to indicate the dollar sum of $64.40. The 10 shillings is calculated by aligning the sight bar with the 10 so as to indicate the dollar sum of $1.40 which is then added to the other dollar sum to obtain the total answer. The scratch pad 7 provides a convenient medium for working out such simple addition problems.

As previously described, sums made up of more than two digits are worked out successively for each pair of digits with the final amount represented by one or two digits followed only by ciphers. The various answers obtained are then added to obtain the total answer.

The frame 4 is shaped to frame the various leaves on both sides of the latter and the sight bar and its slider have duplicating sides so as to be usable in either instance. The decimal guide number scales are appropriately arranged for use with any number of tables relating to different foreign money values. When necessary, ciphers are added to the sum to be translated as required to obtain the appropriate guide number for fixing the decimal point properly.

It is apparent from the foregoing that the device may be operated simply by the average traveler, that the device may be made inexpensively, and that the device will accommodate a wide range of money values relating to the money of any nation desired. Due to the inexpensive nature of the device, and because of its form, the device provides an effective advertising medium.

I claim:

1. A device for translating a sum of money of one nation into substantially an equivalent sum of money of another nation, the device including a vertical table comprising a mathematical progression of numbers each horizontally followed by the product of the number multiplied by the rate of money exchange between the nations, a horizontal sight bar, and means for mounting the table and the sight bar so that the latter may be moved vertically to align with any of the numbers and its product, the device further including a horizontally shifting slider mounted on the sight bar, slider location indicia on the sight bar, a decimal point indicator for the product members of the vertical table and which is mounted on the slider, and a locator for the indicator and mounted on the slider so as to register with the location indicia on the sight bar, the indicia being related in position to the product numbers.

2. A device for translating a sum of money of one nation into substantially an equivalent sum of money of another nation, the device including a vertical table comprising a mathematical progression of numbers each horizontally followed by the product of the number multiplied by the rate of money exchange between the nations, a horizontal sight bar, and means for mounting the table and the sight bar so that the latter may be moved vertically to align with any of the numbers and its product, the device further including a horizontally shifting slider mounted on the sight bar, slider location indicia on the sight bar, a decimal point indicator for the product numbers of the vertical table and which is mounted on the slider, and a locator for the indicator and mounted on the slider so as to register with the location indicia on the sight bar, the indicia being related in position to the product numbers,

and a second table associated with the first-named table and enumerating the money value of fractions indicated by the decimal indicator.

3. A calculating device including an open frame, a flexible leaf shaped to be framed by the frame and to be passed therethrough to be framed thereby on either side of the leaf, means for hinging the leaf adjacent to one side of the frame, and a sight bar shiftably mounted by the frame so that the bar may be shifted to various positions on either side of the leaf.

4. A calculating device including an open frame, a flexible leaf shaped to be framed by the frame and to be passed therethrough to be framed thereby on either side of the leaf, means for hinging the leaf adjacent to one side of the frame, and a sight bar shiftably mounted by the frame so that the bar may be shifted to various positions on either side of the leaf, each side of the leaf being marked with a mathematical progression of numbers extending in the shifting direction of the sight bar and each number being followed transversely to said direction by the product of the number multiplied by the value of the money rate of exchange existing between two different nations with the values on the respective sides of the leaf being the relation of the money of the one nation to the other and vice versa respectively.

5. A calculating device including an open frame, a flexible leaf shaped to be framed by the frame and to be passed therethrough to be framed thereby on either side of the leaf, means for hinging the leaf adjacent to one side of the frame, and a sight bar shiftably mounted by the frame so that the bar may be shifted to various positions on either side of the leaf, each side of the leaf being marked with a mathematical progression of numbers extending in the shifting direction of the sight bar and each number being followed transversely to said direction by the product of the number multiplied by the value of the money rate of exchange existing between two different nations with the values on the respective sides of the leaf being the relation of the money of the one nation to the other and vice versa respectively, and a slider mounted on the sight bar, slider locating indicia on the opposite sides of the bar, decimal point indicators for the product numbers on the respective sides of the leaf and mounted on the slider, and locators on the slider so as to register with the location indicia on the sight bar's sides, the indicia being related in position to the product numbers on the respective sides of the leaf.

6. A calculating device including an open frame, a flexible leaf shaped to be framed by the frame and to be passed therethrough to be framed thereby on either side of the leaf, means for hinging the leaf adjacent to one side of the frame, and a sight bar shiftably mounted by the frame so that the bar may be shifted to various positions on either side of the leaf, each side of the leaf being marked with a mathematical progression of numbers extending in the shifting direction of the sight bar and each number being followed transversely to said direction by the product of the number multiplied by the value of the money rate of exchange existing between two different nations with the values on the respective sides of the leaf being the relation of the money of the one nation to the other and vice versa respectively, and a slider mounted on the sight bar, slider locating indicia on the opposite sides of the bar, decimal point indicators for the product numbers on the respective sides of the leaf and mounted on the slider, and locators on the slider so as to register with the location indicia on the sight bar's sides, the indicia being related in position to the product numbers on the respective sides of the leaf, said means being releasable and adapted for mounting a plurality of other leaves similar to said leaf but marked by using the money rate of exchange existing between various other nations.

7. A device for translating a sum of one system of units into an equivalent sum in another system of units requiring the use of a conversion factor, the device including a support marked with a vertical table comprising a mathematical progression of numbers each horizontally followed by the product of the number multiplied by the conversion factor, means for horizontally visually indicating any one of said numbers and at least a portion of its following product and which means is shiftable vertically relative to said table, and means shiftable relative to said table for indicating a decimal point for the product numbers, the first-named means bearing indicia related to the product numbers for indicating the location to which this last-named means should be shifted.

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