

1,285,941.

Patented Nov. 26, 1918.

Fig. 1

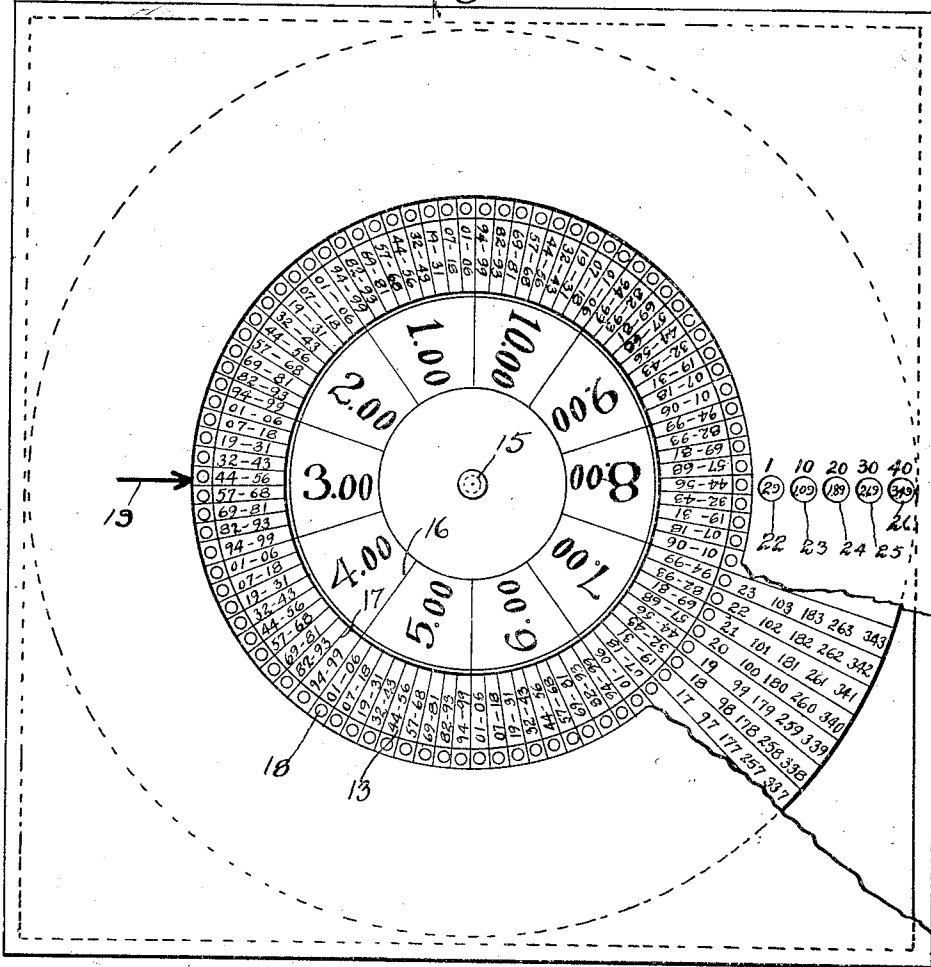
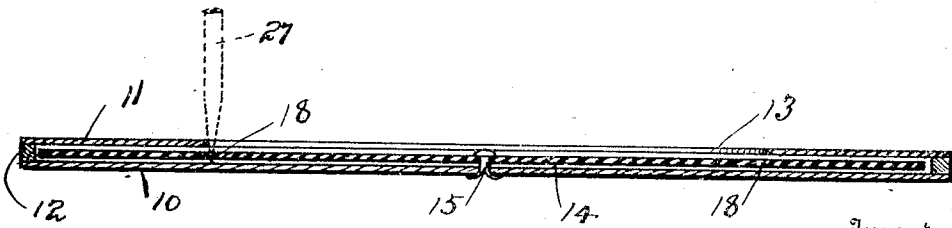


Fig. 2

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UNITED STATES PATENT OFFICE.

FRANK C. CHURCH, OF CRANSTON, RHODE ISLAND, ASSIGNOR TO THE TRAVELERS INSURANCE COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

COMPUTING DEVICE.

1,285,941.

Specification of Letters Patent.

Patented Nov. 26, 1918.

Application filed February 23, 1913. Serial No. 218,717.

To all whom it may concern:

Be it known that I, FRANK C. CHURCH, a citizen of the United States, and resident of the city of Cranston, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Computing Devices, of which the following is a specification.

This invention relates to devices for facilitating computations such as those incident to the figuring of the United States war tax on transportation tickets and the like.

The object of this invention is to provide a rotatable disk lined off into sections on which are indicated dollars, each section being sub-divided and said sub-divisions carrying fractions of the dollar. Each sub-division is also provided with a hole into which the point of a pencil or other sharp instrument may be inserted for the purpose of rotating the disk to a designated position, to bring into view at a given point another set of figures on the face of the disk, to indicate the exact amount of war tax to be added to the dollar or certain multiples thereof.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings:

Figure 1— is a front or face view of my improved fraction computing device, showing the front plate of the frame partially broken away to show the figures which are arranged on the face of the rotatable disk.

Fig. 2— is a central sectional edge view of the device and indicating in dotted lines the pencil point of which is inserted into one of the openings in the disk.

Referring to the drawings, 10 designates the back plate of the frame of my computing device, which may be made of paste-board or other suitable material and 11 indicates the front plate of this frame, which is spaced apart from the back plate by means of the spacer member 12.

The center portion at 13 of this front plate is removed exposing a corresponding portion of the calculating disk member 14 which is rotatably mounted on the pivot 15 in the back plate of the device. The face of this rotatable disk is divided by radial lines 16 into ten segments or sections which are numbered consecutively to indicate as many

dollars. The outer circle of these segments is then sub-divided by radial lines 17 into nine spaces, each of which spaces contains two sets of figures, the tax on any amount inclusive of the two sets of figures in any one section being the same. For instance for \$3.44 to \$3.56 inclusive the tax is twenty eight cents; while the tax for \$3.57 to \$3.68 inclusive, is twenty nine cents, and so on.

One of the essential features of the construction of my device is the provision of a series of holes 18, each being of a size adapted to receive the point of a lead pencil 27 so that the operator may position the pencil into the hole opposite the amount desired, and by it rotate the disk until that hole comes opposite the indicating arrow 19, which brings to view the tax for that amount in the opening 22, and the tax for multiples of that amount may be read through the openings 23, 24, 25 and 26, said openings being formed in the outer plate and preferably at a point diametrically opposite the indicating arrow 19.

Above these openings is shown the numerals 1, 10, 20, 30 and 40, respectively, which indicate the number of dollars to be figured and this plus the amount in the corresponding sector is the amount on which the war tax appearing in the opening below is figured.

In operating the device it is only necessary to select the sector containing the required number of dollars, place the pencil point in the hole which is positioned opposite to the sub-division containing the additional number of cents required. For instance to determine the tax on \$3.57 to \$3.68 or certain multiples of the dollar, place the pencil point in the hole opposite the space bearing 57—68 in the \$3.00 sector, revolve the disk so that the pencil point comes opposite the arrow 19, and the amount of tax will appear in the opposite openings as follows.

In the opening marked 1 the amount of the \$3.60 tax will indicate twenty nine cents. In the opening marked 10 will appear the amount of tax for \$13.30 which is \$1.09. In the opening marked 20 will appear the amount of tax for \$23.60 which is \$1.89. In the opening marked 30 will be the amount of tax for \$33.60 which is \$2.69; and in the opening marked 40 will be the amount of tax for \$43.60 which is \$3.49, and so on.

The figures in this table are based on an

8% tax which is levied on all transportation tickets sold. This table as shown carries figures necessary for computing up to \$50.00. Therefore when the tax on an amount above 5 \$50.00 is to be figured, say for instance \$73.60, as it is known that the 8% tax on \$50.00 is \$4.00, it is now only necessary to find the tax on the \$23.60, which is done by placing the point of a pencil in the \$3.00 10 sector opposite the section 57—68, then by rotating the disk to bring this point to the arrow and reading in the third opening under 20, we find \$1.89 tax, which added to the \$4.00, the tax on \$50, makes a total of 15 \$5.89, which added to the first cost of the ticket, \$73.60, makes \$79.49, total cost of the ticket.

By this simple, inexpensive and efficient device it is seen that the United States war 20 tax which is required to be added to all transportation tickets may be figured most accurately and also instantly and that without the possibility of mistake, which is a most important feature in the quick handling 25 of hurrying people buying railroad or other transportation tickets.

The foregoing description is directed solely toward the construction illustrated, but I 30 desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claim.

I claim:

A computing device of the character de- 35 scribed comprising a frame having a back and a face plate in spaced relation, the central portion of said face plate being removed, a disk rotatably mounted between the back 40 and the face plate and having a portion exposed through the removed central portion of the face plate, said exposed portion being divided into a space adjacent the center, and an outer space concentrically disposed, the 45 inner space being divided into ten major segments, the outer space being also divided into nine minor segments to each one of the major segments, each of the minor segments being provided with a hole adapted to be engaged by an instrument to rotate the disk, 50 the face of the unexposed portion of the said disk having an annular space marked off into radial segments corresponding to said minor segments, an indicating stop on the face 55 plate, said face plate having a series of openings exposing only that segment of the unexposed portion of the disk which corresponds with the selected segment opposite to said stop, all of said segments containing 60 related indicia.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK C. CHURCH.

Witnesses:

HOWARD E. BARLOW,
A. F. MACREADY.