(No Model.) 2 Sheets—Sheet 1.

J. BYRNE.

CALCULATING MACHINE.

No. 595,603. Patented Dec. 14, 1897.

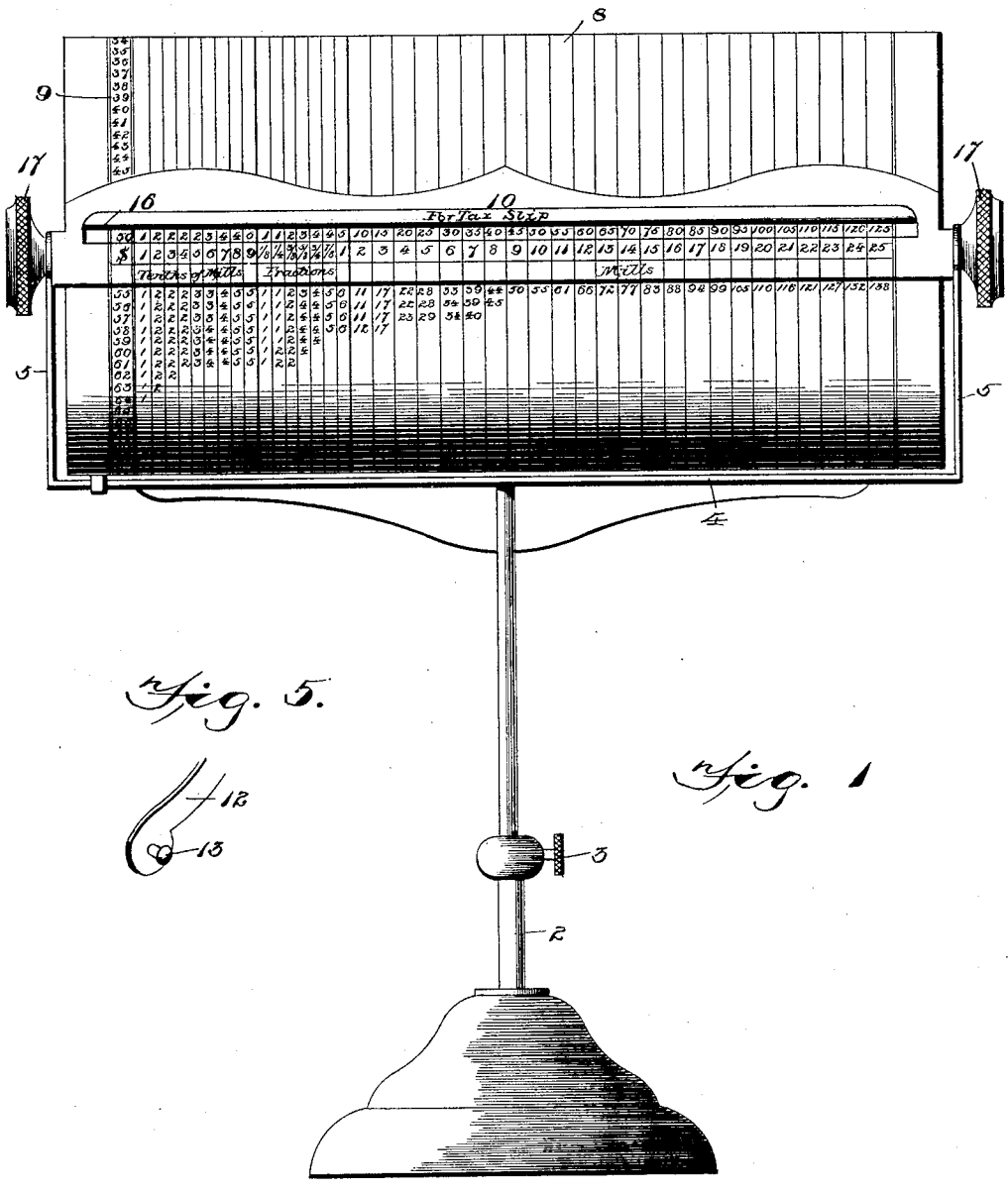


Fig. 5.

Fig. 1

WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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CALCULATING MACHINE.

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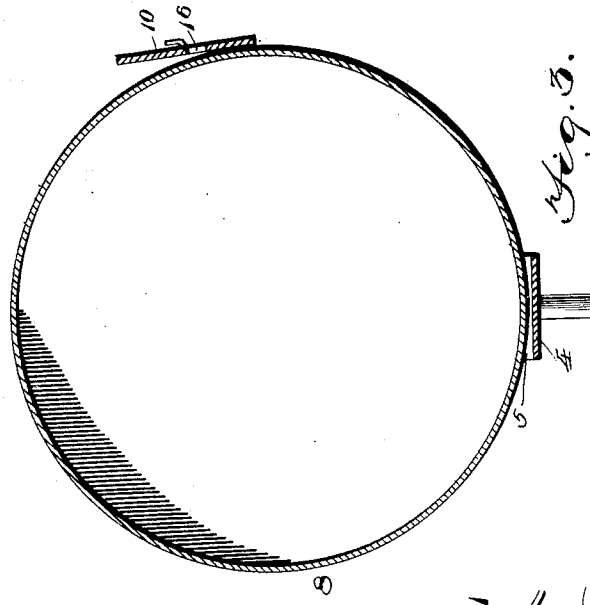


Fig. 3.

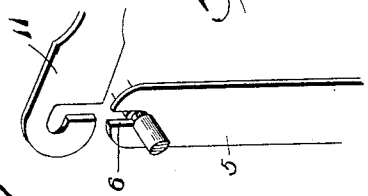


Fig. 4.

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN BYRNE, OF MINDEN, NEBRASKA.

CALCULATING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 595,603, dated December 14, 1897.

Application filed March 15, 1897. Serial No. 627,487. (No model.)

To all whom it may concern:

Be it known that I, JOHN BYRNE, a citizen of the United States, residing at Minden, in the county of Kearney and State of Nebraska, have invented certain new and useful Improvements in Calculating-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in calculating-machines, and more particularly to that class in which the taxes on certain amounts can be readily computed.

Having the above object in view, the invention consists in providing a machine for compiling taxes, comprising a revoluble cylinder with circumferential rows of figures representing the taxable amounts and horizontal rows of figures running from each figure of the first-mentioned row, in connection with an indicator in front of the cylinder having a transverse slot and a horizontal row of figures to register with the figures on the cylinder, the figures on the indicator representing the tax-rate and properly arranged with respect to the figures on the cylinder.

The invention further consists in the particular construction and combination of the parts of the machine, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front view of a calculating-machine constructed in accordance with my invention. Fig. 2 is an end view of the machine, the wheel at the end of the cylinder being removed. Fig. 3 is a sectional view through the indicator. Fig. 4 is a detail perspective view showing the bearings for the shaft and connection of the indicator thereto. Fig. 5 is a detail view of the lower end of the inclined brace-bar.

The numeral 1 designates the base, from which projects a hollow standard 2, which receives the supporting-rod of the main frame of the machine, said standard having a set-screw 3 to provide for adjusting the height of the frame. The frame consists of a horizontal plate 4, having uprights 5 5 at its ends, the upper ends of said uprights having open-ended slots 6, which form bearings for the stub-axles 7 of a cylinder 8. This cylinder may be of any approved construction; but I prefer to make the same of sheet metal, so that the heads thereof can be inclined to present an ornamental appearance, this construction also permitting said cylinder to be made very light. Around the circumference of this cylinder, preferably at the left-hand end thereof, is a row of figures designated by the numeral 9, said figures being in numerical order from "1" to "100," from which the value may be increased as desired to five hundred or more. This row of figures represents the amounts from which the tax is to be computed. Extending horizontally across the cylinder and from each figure of the circumferential row is a row of figures which represents the amounts of tax corresponding with said circumferential row and which is used in conjunction with the indicator hereinafter described, having figures representing the tax-rate.

The indicator 10 extends across the front of the cylinder and is supported from the frame by rearwardly-projecting arms 11 at its ends, having open-ended slots which engage the stub-shafts of the cylinder, brace-bars 12 extending from the forward ends of the arms to the lower ends of the uprights 5. These brace-bars 12 are pivoted to the arms 11, and at their lower ends are provided with inwardly-projecting headed pins 13, adapted to engage either one of two keyhole-slots 14 in the uprights 5. By providing this construction the indicator can be raised or lowered to suit the operator. The indicator is provided with a transverse slot 16, the metal which is cut away to form said slot being turned up to provide a channel or holder to receive a card or strip having printed thereon the tax-levy. At the under edge of the cylinder is a horizontal row of figures registering with the horizontal rows on the cylinder, and in order to facilitate the registration the cylinder is provided with circumferential lines between the figures on the horizontal rows and the indicator is provided with similar lines between its figures. The figures on this indicator designate the tax-rate, and therefore the horizontal rows are properly arranged with respect to the said indicator.

At the ends of the stub-shafts of the cylin-

der are milled wheels or knobs 17, by which said cylinder may be turned, and in order to prevent the cylinder turning too freely I provide a friction device located on the cross bar or plate 4. In the drawings I have shown this friction device to be a thick rubber band which presses against one edge of the cylinder.

From the foregoing description, in connection with the accompanying drawings, the operation of my machine will be readily apparent. As an example, should it be desired to find the amount of tax on one hundred and seventy-five dollars at the rate of nine-tenths mills the cylinder is turned to bring the figures "175" directly above the dollar-mark on the indicator, and by glancing at the space on the indicator representing nine-tenths mills the figures "16" will be found on the cylinder appearing through the slot. Thus the tax on the said amount will be found to be sixteen cents. Therefore, in order to find the tax on stated amounts it is only necessary to turn the cylinder to bring each amount behind the slot and a glance will give the amount of tax.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a calculating-machine, the combination of a frame having uprights at its ends; a cylinder having stub-shafts bearing in said uprights, an indicator extending across the cylinder and provided with arms which bear on the stub-shafts, the indicator having a slot above which is a channel or holder made by bending up the metal removed to form said slot, and an inclined brace extending from the forward ends of the arms to the lower ends of the uprights, substantially as shown, and for the purpose set forth.

2. In a calculating-machine, the combination with a suitably-supported frame presenting uprights 5 5 slotted at their upper ends, of a cylinder having stub-shafts journaled in said slots, an indicator extending across the cylinder and provided with arms having slots which engage the stub-shafts, the uprights having keyhole-slots at their lower ends, and inclined brace-bars 12 pivoted to the forward ends of the arms and having at their free ends inwardly-projecting headed pins adapted to engage the keyhole-slots; together with the milled wheels or knobs secured at the ends of the stub-shafts of the cylinder, substantially as shown, and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN BYRNE.

Witnesses:
E. C. DAILEY,
O. R. BEEBE.