

W. J. RAINEY.  
COMPUTING DEVICE.  
APPLICATION FILED JUNE 9, 1909.

956,998.

Patented May 3, 1910.

Fig. 1.

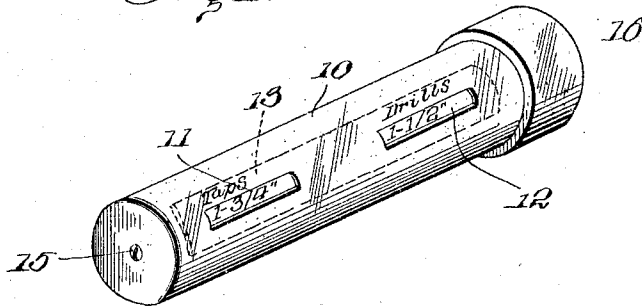
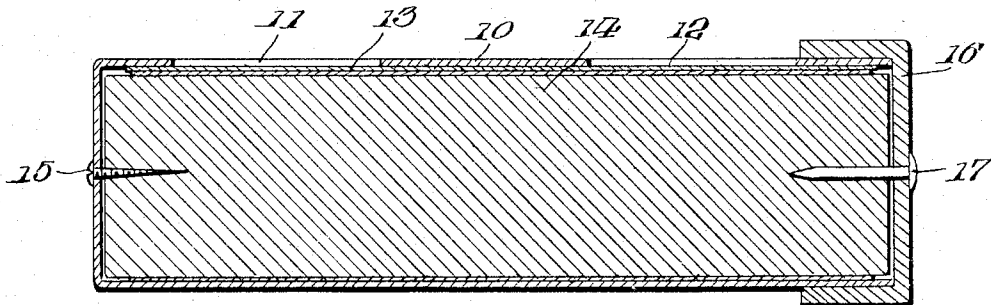


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## COMPUTING DEVICE.

956,998.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed June 9, 1909. Serial No. 501,083.

*To all whom it may concern:*

Be it known that I, WILLIAM J. RAINEY, citizen of the United States, residing at Grove City, county of Mercer, and State of Pennsylvania, have invented certain new and useful Improvements in Computing Devices, of which the following is a specification.

This invention relates to computing devices and refers particularly to a device for indicating the relative sizes of drills to the taps required, so that a ready means may be employed for determining the size of the drill required to bore the desired tap.

The invention comprises a simple and novel device which is inexpensive and one which is easily operated by means of which relative sizes may be readily computed and which may be applicable to any art in which such computing is necessary.

The invention has for an object the provision of a computing device of this character which is of simple structure so that the same may be readily carried within the pocket of workmen and thereby form a convenient and handy implement of this nature.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a perspective view of the complete computator, and Fig. 2 is a longitudinal section through the same.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing in which is disclosed an embodiment of the invention the reference numeral 10 designates a cylinder which is provided in one of its sides with elongated openings 11 and 12 which are disposed in registered relation and which are closed by the employment of a portion of transparent material 13 such as isinglass or the like in order to form a means by which the operator may easily see through the openings 11 and 12 to read configurations which are disposed upon the outer face of a drum 14 which is rotatably mounted within the cylinder 10. The drum 14 preferably comprises a cylindrical block which is of such size as to fit loosely within the cylinder 10 and to thereby freely rotate therein, the block 14 being retained in concentric relation within the cylinder 10 by

the employment of a set-screw 15 which is loosely positioned through the closed end of the cylinder 10 and rigidly engaged within the inner end of the drum or block 14.

The drum 14 is rotated by means of a cap 16 which is rigidly secured to the outer end of the drum by the employment of a pin 17 which is provided with a rectangular shank in order to engage the cap 16 in rigid relation upon the end of the drum 14 to thereby cause the rotation of the drum upon the rotation of the cap 16. The cap 16 is also positioned upon the drum 14 and is of such size as to extend the flanged portion thereof over the outer edge of the cylinder 10 and to thereby frictionally close the cylinder and to form a ready means by which the cap may be grasped for rotation. The outer face of the cap 16 is preferably milled or corrugated for the purpose of forming a roughened finger engaging portion by means of which the operator may secure a firm grasp therewith.

The drum 14 is provided adjacent its opposite ends with configurations which are disposed in columns extending peripherally around the drum, the separate configurations of each column being oppositely disposed in longitudinal alinement upon the drum so that the same will simultaneously register with the openings 11 and 12 to enable the operator to read the same in one reading, in which instance the opening 11 will indicate the readings to designate the taps and for forming taps of the size which are indicated by the configurations which register with the opening 11 while the configurations which register with the opening 12 make the size of the drills which must be employed for forming the bores of the corresponding sizes of taps which are simultaneously indicated in registered relation with the opening 11.

In employing the device it is readily observed that the configurations may be employed for various purposes other than the relative size of taps and drills and that the device will be equally useful in determining quickly such computations.

Having thus described the invention what is claimed as new is:—

1. A computing device including a hollow cylinder having openings in one side thereof and arranged in longitudinal alinement, a strip of transparent material disposed in said cylinder to close the openings,

a drum located in said cylinder and adapted for rotation therein, said drum bearing columns of numerals for registration with the openings, a set-screw loosely carried through the closed end of said cylinder and engaged with said drum for retaining the same in position, a cap engaged over the open end of said cylinder and secured against the end of said drum, and a pin of angular cross-section secured through said cap and into the end of said drum.

2. A computing device including a hollow cylinder closed at one end and having openings in one side thereof, a drum rotatably positioned within said cylinder and bearing configurations thereon for registration with the openings in said cylinder, a set-screw secured through the closed end of said cylinder and with said drum, and a cap secured upon one end of said drum for engagement over the open end of said cylinder to rotate said drum.

3. A computing device including a cylindrical member having openings in one side thereof, a drum rotatably positioned within said cylinder, and a cap secured to said drum for engagement over one end of said cylinder to rotate said drum.

4. A computing device including a cylinder having openings in one side thereof, a drum having corresponding characters located in columns upon the periphery thereof for registration with the openings in said cylinder, and a cap carried by said drum and frictionally engaged over the open end of said cylinder to rotate said drum.

5. A computing device including a cylinder having openings formed in one side thereof and in longitudinal alinement, a drum located in said cylinder and adapted to rotate therein, said drum having corresponding columns of configurations for simultaneous registration with the openings in said cylinder, a cap carried upon one end of said drum and engaged over the open end of said cylinder to frictionally retain said drum in adjusted position, and a set-screw engaged through the opposite end of said cylinder and into said drum for retaining the same within the cylinder.

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

WILLIAM J. RAINEY. [L. S.]

Witnesses:

G. E. HINCHCLIFFE,  
JAS. RICHARDSON.