

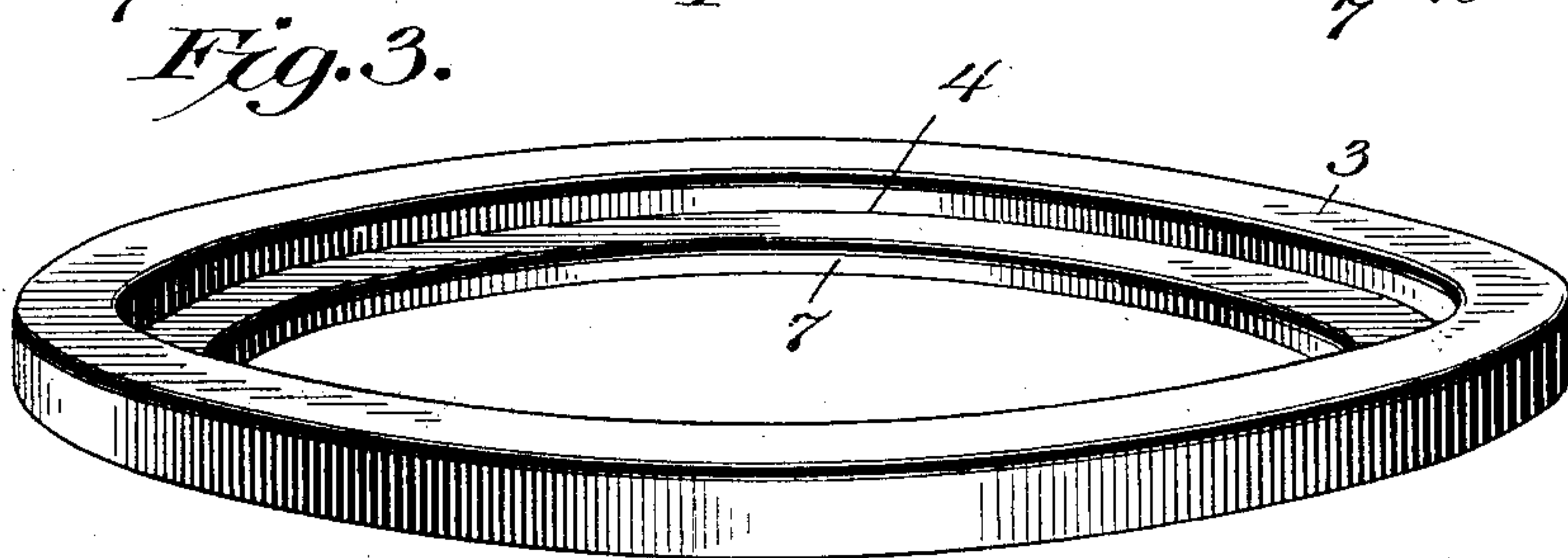
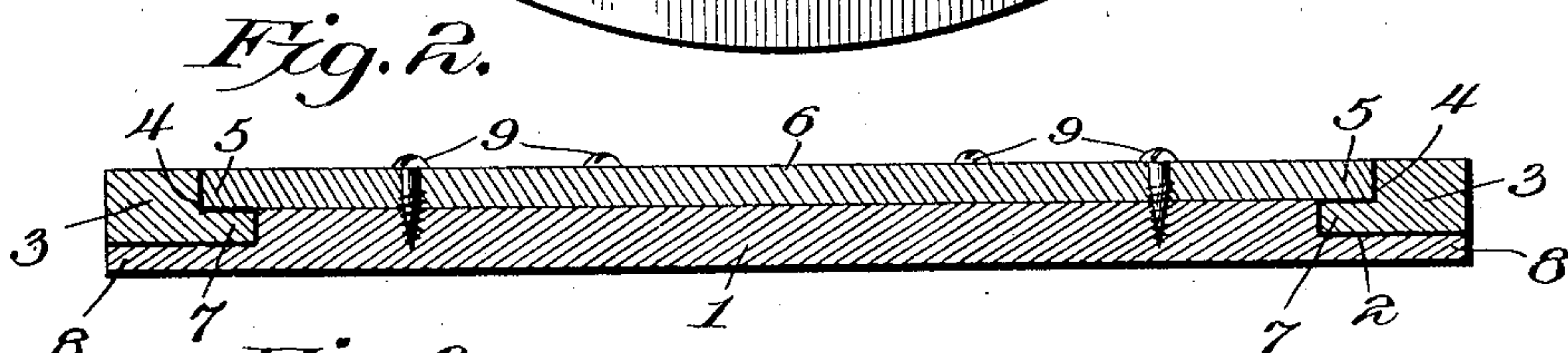
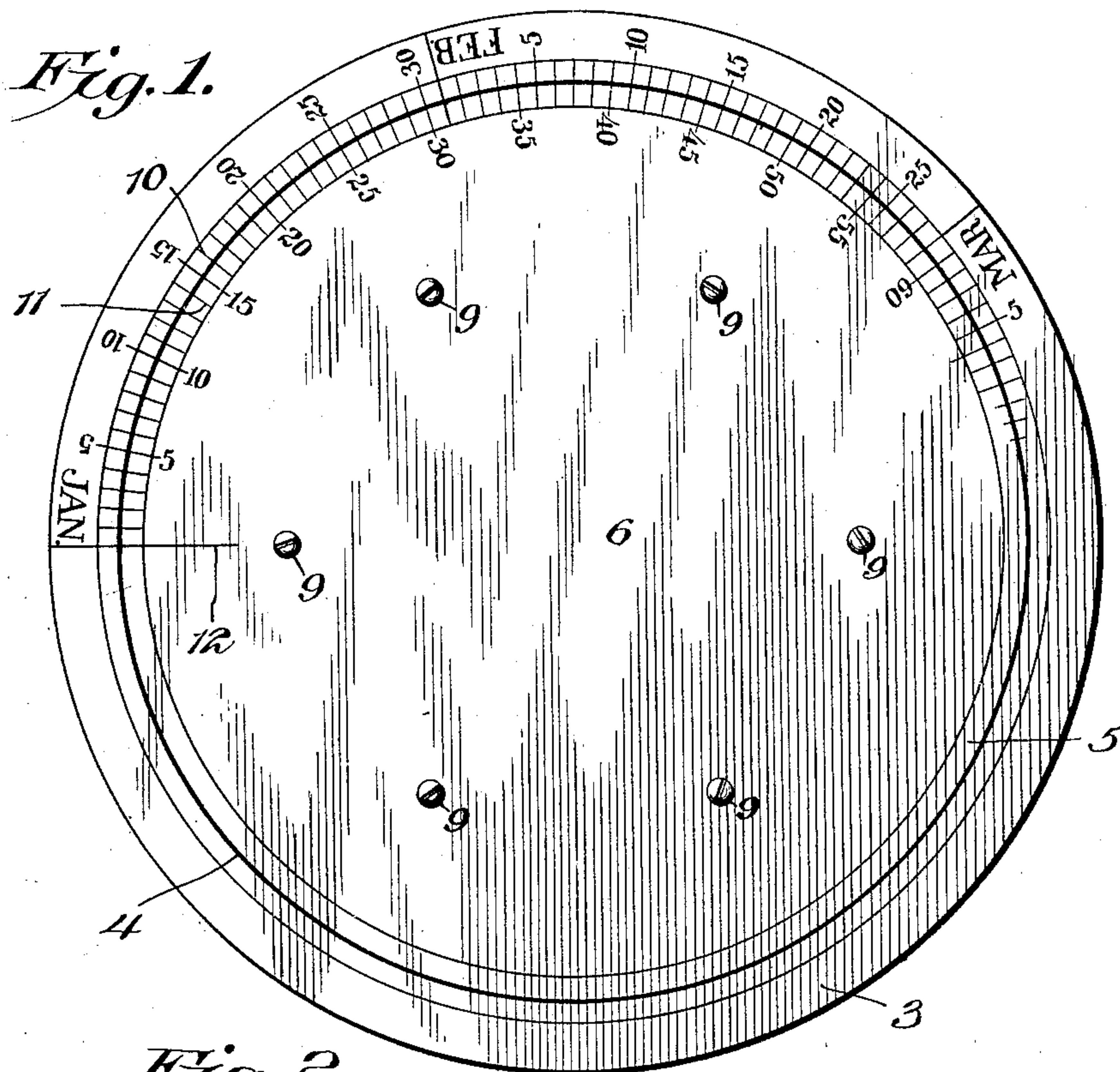
No. 749,851.

PATENTED JAN. 19, 1904.

E. C. DUNCAN.
CALCULATOR.

APPLICATION FILED NOV. 29, 1902.

NO MODEL.



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UNITED STATES PATENT OFFICE.

EMILY C. DUNCAN, OF JENNINGS, LOUISIANA.

CALCULATOR.

SPECIFICATION forming part of Letters Patent No. 749,851, dated January 19, 1904.

Application filed November 29, 1902. Serial No. 133,261. (No model.)

To all whom it may concern:

Be it known that I, EMILY C. DUNCAN, a citizen of the United States, residing at Jennings, in the parish of Calcasieu and State of Louisiana, have invented a new and useful Calculator, of which the following is a specification.

The invention relates to improvements in calculators.

The object of the present invention is to improve the construction of time-calculators and to provide an exceedingly simple and inexpensive device of great strength and durability designed primarily for ascertaining the number of days a note or similar instrument has run or is to run and adapted to be quickly arranged for indicating the aggregate number of days from any one date to another within the space of a year with absolute accuracy.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereto appended, it being understood that changes in the form, proportion, and minor details of construction within the scope of the claims may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a plan view of a time-calculator constructed in accordance with this invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a detail view of the rotary ring.

1 designates a circular base designed to be constructed of any desired material and provided with an annular peripheral recess 2 at its upper face to form a bearing for a rotary ring or member 3, which is provided at its inner edge with a rabbet or recess 4. The rabbet or recess 4, which is arranged in the upper face of the rotary ring or member, receives a projecting peripheral edge 5 of a disk or plate 6, and it forms a lower projecting annular flange 7, which fits under the projecting edge or flange 5 of the disk or plate 6. The annular recess of the circular base forms an integral projecting supporting-flange 8 and a central thickened body portion to which the top, disk, or plate 6 is secured. The top, disk,

or plate 6, which is applied to the central thickened body portion of the base after the rotary ring or member 3 is arranged on the projecting peripheral flange 8, is of greater diameter than the said central thickened or body portion of the base, and it may be secured to the same by suitable fastening devices 9, such as screws or nails, or by cement or any other means to suit the character of the material of which the parts of the calculator are constructed. The rotary ring or member is provided at its upper face adjacent to its inner edge with an annular series of graduations 10, and it has suitable characters for designating the months and the days of the month to provide a movable calendar. The central thickened body portion of the base has its upper face located slightly above the plane of the upper face of the inwardly-extending flange of the rotary ring or member, and the upper face of the disk or plate 6 is arranged flush with the upper face of the rotary ring or member, sufficient space being provided between the contiguous faces of the parts to permit the ring or member to rotate freely. The disk or plate is provided at its projecting peripheral edge with an annular series of graduations 11, and it has numbers or other characters for indicating the number of days in a year. These numerals are preferably placed at intervals of five; but they may consist of a series of consecutive numbers or characters, as will be readily understood. In practice the calculator will be provided with a complete calendar and a complete set of numerals; but for convenience of illustration only a portion of the calendar and the series of numbers or other characters for indicating the number of days in any period of time is shown, and the partial illustration is enlarged and is extended over a greater portion of the surface of the calculator than it will occupy in practice. However, as this matter will be perfectly clear from the description and illustration, it is thought that complete illustration is unnecessary. The designating characters may also be reversed to arrange the calendar on the projecting portion of the disk or plate 6 instead of on the rotary member or ring.

The disk or plate 6 is provided at the be-

ginning of the series of numerals or other characters with an indicating-mark 12, which may be simply an extended line, or a zero-mark or other character may be employed. When it is desired to ascertain the number of days a note or other instrument has run or is to run, the date of such note or instrument is brought to the zero or indicating point or mark 12 by rotating the ring or member. Then the character or number of the disk or plate 6 opposite the date when the note or instrument is due will indicate the number of days between the two dates. By this construction and arrangement the number of days between any two dates within the space of a year may be quickly ascertained with absolute accuracy. The calculator will in practice be constructed for years in which the month of February has only twenty-eight days, and when making calculations during a leap-year involving the month of February it will be only necessary to add one day to the result to obtain the correct number of days.

It will be seen that the device is exceedingly simple and inexpensive in construction, that it is strong and durable and compactly arranged, and that it is capable of being quickly arranged for indicating the number of days between any two dates within a year with absolute accuracy.

What I claim is—

1. A calculator comprising a base provided with an annular peripheral recess forming a thickened central body portion and a projecting peripheral flange, a circular plate secured detachably to the body portion of the base and projecting outwardly beyond the same and cooperating with the said peripheral flange to form a groove and terminating short of the edge of the flange, and a rotary ring or member arranged on the peripheral flange of the

base and fitting against the periphery of the plate and provided with an inner projecting flange fitting in the said groove, substantially as described.

2. A calculator comprising a base provided with an annular recess at its upper face to form a projecting peripheral flange and to provide a thickened body portion, a rotary ring or member arranged in the annular recess of the base and provided at its inner edge with an outer or upper annular recess forming an inwardly-extending annular flange, and a circular plate secured to the body portion of the base and having its outer face flush with the outer face of the ring or member, said plate being extended outward beyond the said body portion to form a projecting flange to fit in the recess of the ring or member, substantially as described.

3. A calculator comprising a circular base provided with an annular recess, a rotary ring provided at its inner edge with an annular recess and arranged in the recess of the base, and provided at its outer face with characters for designating the months and the days of the same, and a circular plate secured to the central portion of the base and projecting outward beyond the same into the annular recess of the rotary ring and having its outer face flush with the outer face of the same, said circular plate being also provided with characters for designating the number of days of the period covered by the characters of the rotary ring, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EMILY C. DUNCAN.

Witnesses:

W. M. TAYLOR,
H. L. SWEET.