

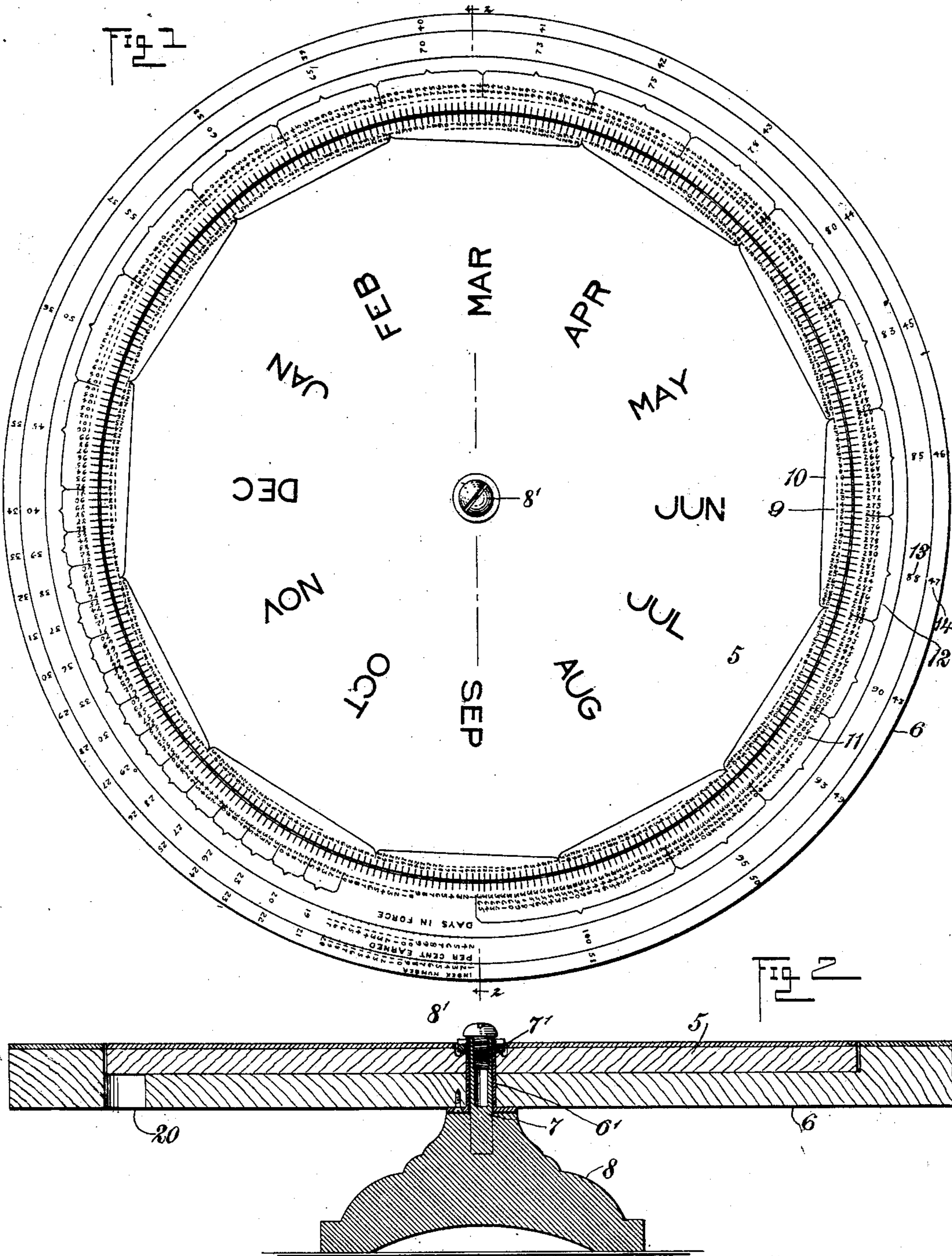
No. 710,288.

Patented Sept. 30, 1902.

L. B. MANLEY.
COMPUTING CHART.

(Application filed Nov. 19, 1901.)

(No Model.)



WITNESSES:

Spolehney
C. R. Ferguson

INVENTOR

Liston B. Manley

BY

Manley

ATTORNEYS

UNITED STATES PATENT OFFICE.

LISTON B. MANLEY, OF DULUTH, MINNESOTA.

COMPUTING-CHART.

SPECIFICATION forming part of Letters Patent No. 710,288, dated September 30, 1902.

Application filed November 19, 1901. Serial No. 82,855. (No model.)

To all whom it may concern:

Be it known that I, LISTON B. MANLEY, a citizen of the United States, and a resident of Duluth, in the county of St. Louis and State of Minnesota, have invented a new and Improved Computing-Chart, of which the following is a full, clear, and exact description.

This invention relates to improvements in computing-charts, particularly adapted for use in insurance-offices, banks, and the like, the object being to provide a simple chart by means of which the number of days between any two given dates may be quickly ascertained and indicating the per cent. of an annual premium earned by a policy for the said number of days, and, further, to provide in connection with the device indices referring to numbered lines in cancellation-tables.

I will describe a computing-chart embodying my invention and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a plan view of a computing-chart embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

As shown in the drawings, the chart comprises a member 5 and a member 6. These members are shown as circular, the member 5 being adapted to rotate within the member 6, and both members are mounted to rotate on a post 7, attached to a base 8. A sleeve 6' is secured to the member 6 and extends loosely through the member 5, the sleeve being mounted to turn on the post. A washer 7' is arranged on the upper end of the sleeve and engages a recess in the upper face of the member 5, and a headed bolt 8' engages a screw-threaded opening in the upper end of the post. The parts 5 and 6 may be made of any suitable material, and preferably, as shown in Fig. 2, the part or member 6 is provided with a recess or depression within which the part or member 5 is placed, so that the upper surfaces of the two members are on one plane.

Printed or otherwise marked on the inner member 5 are the several months of the year, and opposite each designation of a month is a series of figures indicating the number of days in the month. These figures are shown at 9,

and each set of figures indicating a month is embraced within a bracket or line 10. On the inner periphery of the outer member 6 are consecutively arranged figures running from "1" to "365," and this line of figures I designate the "days-in-force" numerals. The several figures 11, indicating the days in force, are divided into several sections, the sections being indicated by brackets or lines 12, and opposite the center of each bracket or line 12 is arranged a figure "13," indicating the per cent. earned, and opposite each of said figures "13" is a numeral or numerals "14," which serve as indices referring to numbered lines in a cancellation-table.

The operation of the device above described is as follows: Set any given date indicated on the outer margin of the inner circle or member 5 in line with the numeral "365" at the inner margin of the outer circle or member, and the difference in days between the first date named and the other date taken is shown opposite the last-named date on the inner margin of the outer circle or member 6. For instance, as shown in Fig. 1, place "September 14" in line with "365" on the scale 11, then turn to "March 15." Opposite this number "15" will be found the numeral "182," showing that there are one hundred and eighty-two days between September 14 and March 15. In case February 29 of a leap-year occurs within the period for which the time is to be computed instead of setting the first date opposite "365" set it opposite "364," and the correct number of days between the two dates will appear in the adjoining circle, as in the previous instance.

Instead of the figures representing the per cent. earned an interest-table may be employed.

For convenience in turning the member 5 relatively to the member 6 the said member 6 is provided in its bottom wall with an opening 20, through which a person may insert his finger to engage the under side of the inner member.

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

A computing-chart having an outer or lower circular member and an upper or inner circular member movable one relatively to the

other, one of said members having indices
indicating months and dates thereof and the
other member having a series of consecu-
tively-arranged numbers, a central support-
5 ing-base, a post secured on said base, a sleeve
secured to the outer or lower member and
mounted to turn on said post, the said sleeve
extending loosely through the upper or inner
member, a washer on the upper end of the
10 sleeve and engaging a recess in the upper face

of the inner member, and a headed bolt screw-
ing into the upper end of the post, substan-
tially as specified.

In testimony whereof I have signed my
name to this specification in the presence of 15
two subscribing witnesses.

LISTON B. MANLEY.

Witnesses:

L. D. SCHENCK,

E. F. SPINK.