

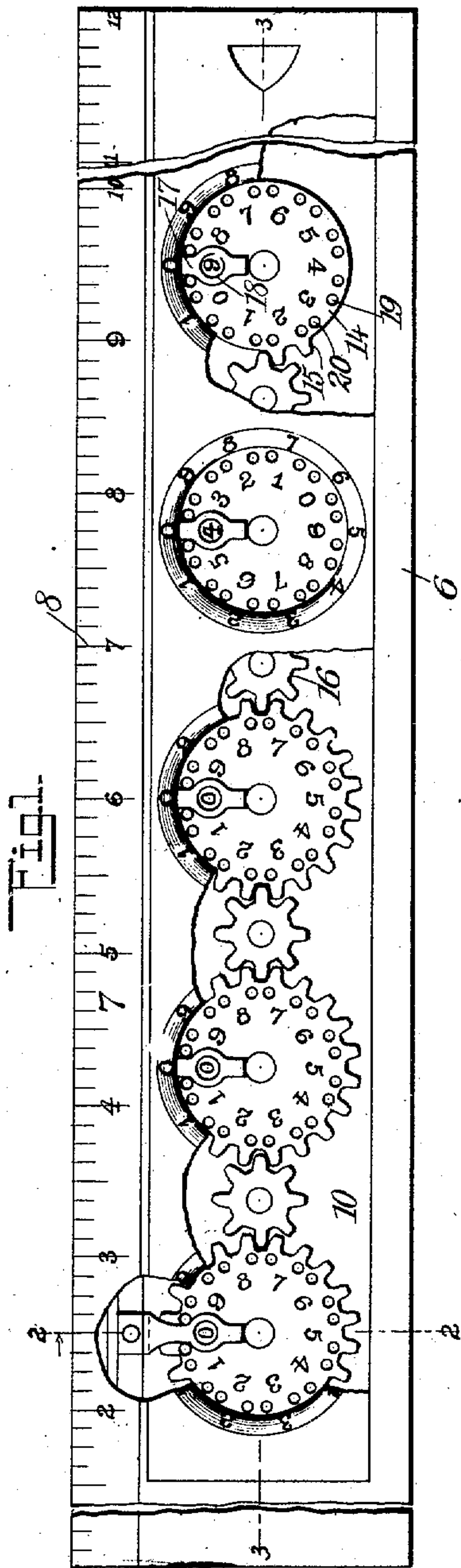
No. 858,974.

PATENTED JULY 2, 1907.

F. P. GLASNER & J. J. GLASIER.

COMPUTING DEVICE.

APPLICATION FILED JAN. 10, 1906.



WITNESSES:
L. Almqvist
C. R. Ferguson

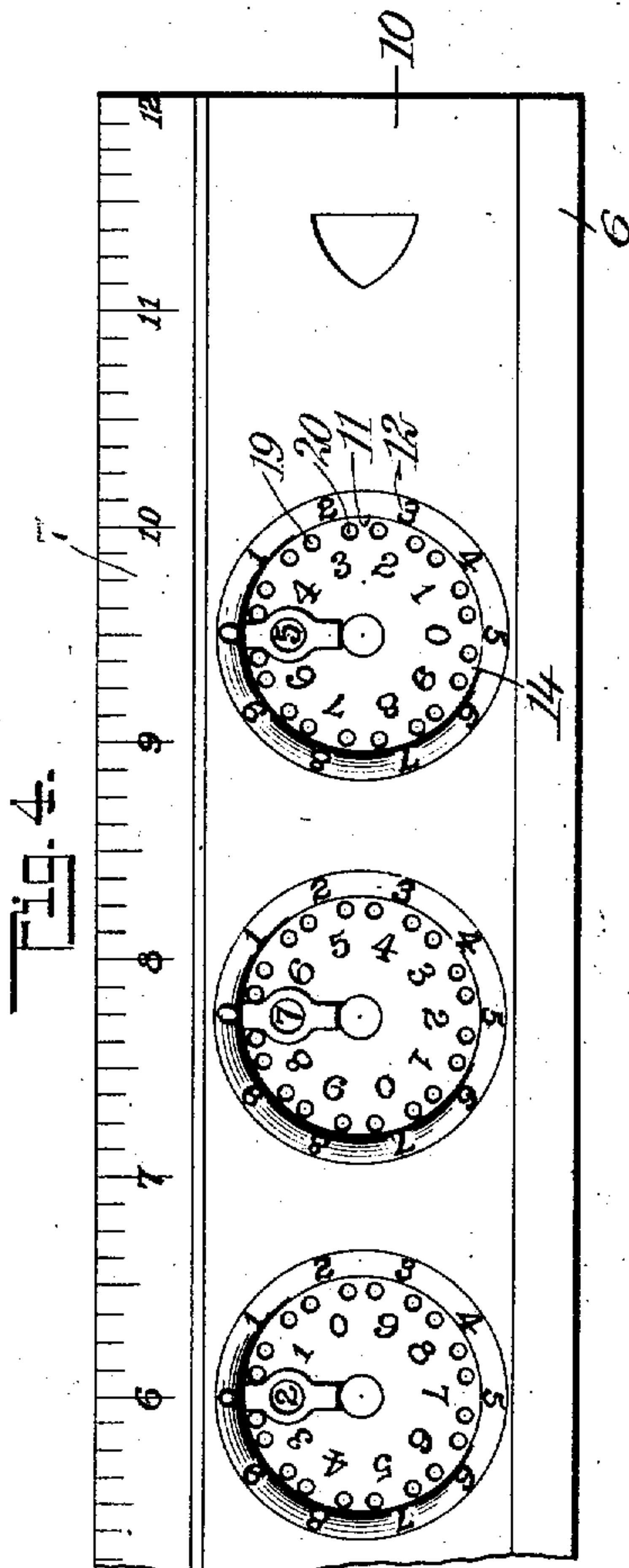


Fig. 4.

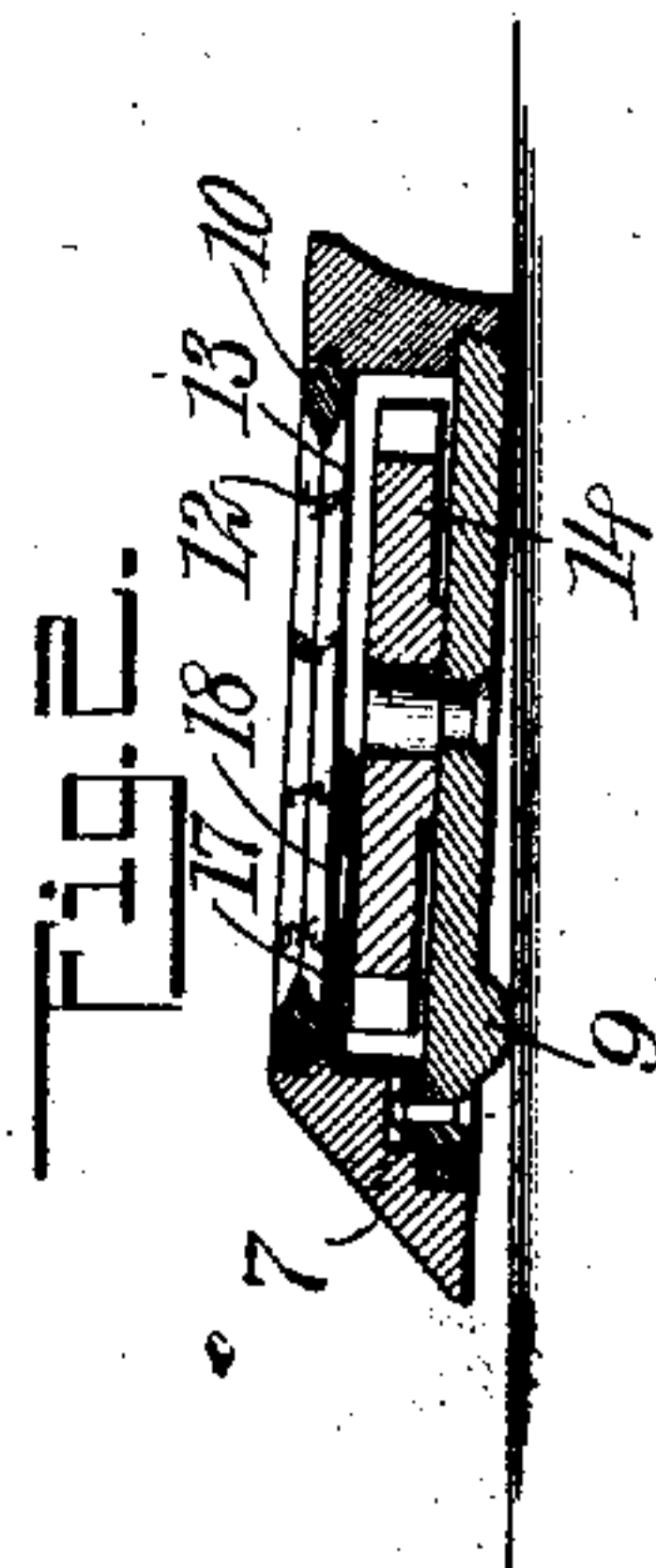


Fig. 2.

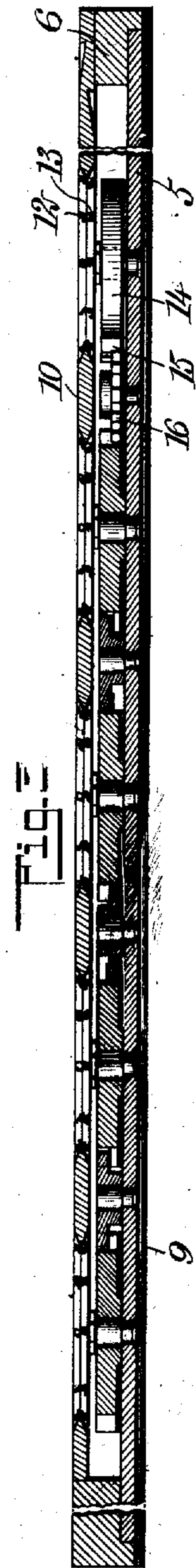


Fig. 3.

INVENTORS
Frank P. Glasner
Johnson J. Glasier
 BY

Munn & Co
 ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANK P. GLASNER AND JOHNSON J. GLASIER, OF SPRINGFIELD, SOUTH DAKOTA.

COMPUTING DEVICE.

No. 858,974.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed January 10, 1906. Serial No. 295,378.

To all whom it may concern:

Be it known that we, FRANK P. GLASNER and JOHNSON J. GLASIER, both citizens of the United States, and residents of Springfield, in the county of Bonhomme and State of South Dakota, have invented a new and Improved Computing Device, of which the following is a full, clear, and exact description.

This invention relates to improvements in computing or adding and subtracting devices combined with a measuring ruler, the object being to provide a device of this character that may be produced at a small price because of its simple construction, and that will be found very useful as an article of desk furniture.

I will describe a computing device embodying my invention and then point out the novel features in the appended claims.

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 all the figures.

Figure 1 is a top view with portions broken away, of a computing device embodying my invention; Fig. 2 is a section on the line 2--2 of Fig. 1; Fig. 3 is a section on the line 3--3 of Fig. 1; and Fig. 4 is a plan of a portion of the device.

The device comprises a casing consisting of a base-plate 5 which may be of any suitable material, such, for instance, as metal, wood, celluloid or other substance, and secured thereto is a frame 6, one edge of which is beveled as indicated at 7 and on this beveled portion are scale marks 8 indicating inches and fractions of inches. The under side of the casing near the beveled edge has a longitudinal rib 9 which will slightly raise the edge of the ruler from paper or the like, thus preventing the smearing of ink on the paper when the device is used for ruling purposes. The top of the casing or frame is provided with a sliding cover 10 having openings 11 through which the numeral disks are disclosed.

Around each opening at one side of the sliding cover are numerals 12 and on the opposite side are numerals 13, the numerals on the opposite sides being arranged in reverse order so that the sliding cover when in one position may indicate the proper movement of the numeral disk for addition and when in the reverse position will indicate the movement for subtraction.

Arranged in the casing is a plurality of numeral disks 14, each having on its upper surface numerals extending from naught to nine, the first disk indicating units, the next tens, and so on up to tens of thousands. The units-disk is provided with enough peripheral teeth 15 to engage with the pinion and move it enough to move the wheel of the next higher denomination one-tenth of its circumference, and the other disks are also provided with peripheral teeth; and arranged between adjacent disks are pinions 16 with which the teeth are designed to engage for imparting motion from one disk to another; that is, when the units disk shall have made one complete rotation its teeth 15 by engaging with the pinion 16 will rotate the same, causing a one-step movement of the tens-disk.

Arranged over each disk is a fixed stop-plate 17 having an opening 18 through which the number on the disk is shown. At opposite sides of each number on a disk are perforations 19, 20 in which the point of a pencil or other device may be inserted for rotating the disk. That is, in subtracting, the pencil or other device is to be inserted in one of the perforations for turning the disk to the left, or in the other perforation for turning the disk to the right, the disk being turned until the pencil or the like, comes in contact with the stop-plate 17.

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

1. A computing device comprising a casing, a removable cover therefor, having openings, numerals around said openings at opposite sides, the numerals of one side being in reverse order to the numerals of the opposite side, and computing disks arranged in the casing below said openings.

2. A computing device comprising a casing, a removable cover for the casing having openings, numerals around said openings at opposite sides, the numerals at one side being in reverse order to the numerals at the opposite side, and disks arranged in the casing and having numerals, and also having perforations at each side of the numerals, and a stop-plate over each disk, the said stop-plate having an opening.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANK P. GLASNER.
JOHNSON J. GLASIER.

Witnesses:
C. E. STODDARD,
Geo. W. SNOW.