(No Model.)

S. S. STRECK. TIME CALCULATOR.

No. 337,533.

Patented Mar. 9, 1886.



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# UNITED STATES PATENT OFFICE.

#### SULLIVAN S. STRECK, OF NEW ORLEANS, LOUISIANA.

## TIME-CALCULATOR.

## SPECIFICATION forming part of Letters Patent No. 337,533, dated March 9, 1886.

Application filed November 23, 1885. Serial No. 183,796. (No model.)

#### To all whom it may concern:

Be it known that I, SULLIVAN S. STRECK, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and 5 useful Improvement in Time Calculators, of which the following is a specification, refer-

ence being had to the annexed drawings, forming part thereof, in which-Figure 1 is a face view of my improved

- 10 time calculator. Fig. 2 is a central transverse section; and Fig. 3 is a view of part of the instrument, illustrating the manner of using the same.
- Similar letters of reference indicate corre-15 sponding parts in the different figures.

The object of my invention is to provide a simple, inexpensive, and easily-operated device for calculating the time from any part of the twenty-four hours to any other part.

- My invention is especially designed for the 20 use of time-keepers or foremen in manufacturing establishments, to enable them to readily calculate the amount of time consumed by any workman upon any job.
- My invention consists in a graduated circle 25 formed on a suitable surface and in a graduated disk arranged to revolve in front of the circle, the graduated circle being provided with two sets of graduations running from one
- 30 to twelve, and the movable graduated disk having one set of graduations running from one to twenty-four.

The plate A, forming the body of the instrument, has a circle, B, which is divided

- 35 into twenty-four equal parts, representing the twenty four hours of the day, and each of the larger divisions is subdivided into half and quarter hours and into smaller divisions of five minutes. The circle B is divided into
- 40 halves a a', and the larger divisions of each half are numbered from one to twelve, representing the twelve hours of the day and night divisions of the day. Opposite the twelve-mark upon one side of the plate A is placed
- 45 an arrow, b, indicating the starting-point. To the plate A is pivoted a disk, C, coaxially with the circle B, and the edge of the disk C is divided into twenty-four large divisions, representing hours, and each large to division is subdivided into halves and quar-
- ters, and into spaces representing five minutes of time. The larger graduations of the disk

C are numbered reversely from one to twentyfour, and opposite the graduation marked twenty-four is placed an index, b'. When 55 the index b' of the disk C is opposite the arrow b upon the plate A, the calculator is in condition for use.

By moving the disk C forward in the direction indicated by the arrow until the in- 60 dex b' arrives at the hour or subdivision thereof on the upper half, a', of the scale B at which the workman finished his work, then by following the graduated circle  $\dot{\mathbf{B}}$ backward to the hour at which the workman 65 began his work, and observing the figure or graduation on the disk C opposite the mark representing the hour of beginning work, the mark or the graduation thus indicated on the disk C will represent the number of hours oc- 70 cupied by the workman.

Fig. 3 shows an example in which the workman stopped work at half-past one. The index b' is therefore moved to a point opposite the mark representing half-past one upon the 75 upper half, a', of the circle B. He began work at half-past eleven. Now, by following the graduations of the upper half, a', of the scale B backward past the figure twelve to the mark representing half past eleven, it will be ob- 80 served that the mark on the disk C opposite the half-past-eleven mark on the circle B is numbered two, thus indicating that the workman was employed two hours.

By the employment of my improved calcu- 85 lator, the time-keeper or the foreman of a shop will be able to readily make the calculations required to show the number of hours and minutes the workman was engaged, and not only will he be able to save all the time 90 required to make such calculations, but he will arrive at perfectly accurate results.

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

1. The plate A, having formed thereon a graduated circle, B, divided into hours and subdivisions thereof, each half of the circle being numbered from one to twelve, and in combination therewith of a disk, C, divided Ico into twenty-four parts representing hours, each part being subdivided, substantially as herein shown and described.

2. In a time-calculator, the graduated circle

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B, divided into twenty four equal divisions B, divided into twenty-four equal divisions representing the hours of the day, the divis-ions of each half of the circle being numbered from one to twelve, and subdivided as de-5 scribed, and provided with the index  $\delta$ , and the disk C, pivoted co-axially with the circle B, and provided with twenty-four equal grad-uations around the edge thereof, said gradua-

tions being numbered from one to twenty-four successively and subdivided, and the in- to dex b', formed on the disk C, combined and arranged as herein specified. SULLIVAN S. STRECK.

Witnesses: M. HERNANDEZ, EMILE C. JEUNESSE.