

(No Model.)

J. M. LUDLOW, I. K. FUNK & A. W. WAGNALLS.

RADIALLY FOLDING SYNCHRONOUS CHART.

No. 329,178.

Patented Oct. 27, 1885.



Fig. 2.

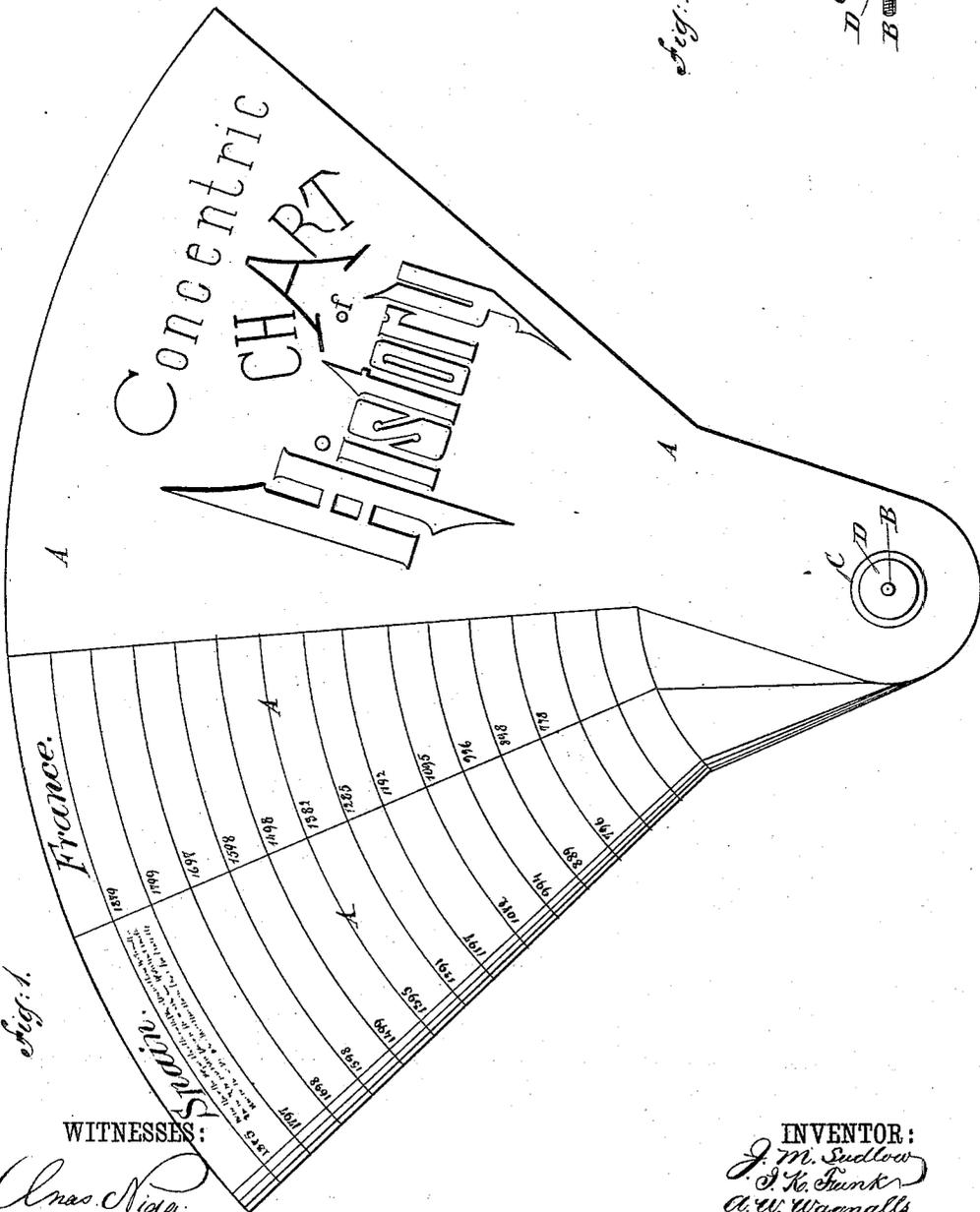


Fig. 1.

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JAMES M. LUDLOW AND ISAAC K. FUNK, OF BROOKLYN, AND ADAM W. WAGNALLS, OF NEW YORK, N. Y.

## RADIALLY-FOLDING SYNCHRONOUS CHART.

SPECIFICATION forming part of Letters Patent No. 329,178, dated October 27, 1885.

Application filed January 8, 1885. Serial No. 152,269. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES M. LUDLOW and ISAAC K. FUNK, both of Brooklyn, in the county of Kings and State of New York, and ADAM W. WAGNALLS, of the city, county, and State of New York, have invented a new and useful Improvement in Radially-Folding Synchronous Charts, of which the following is a full, clear, and exact description.

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

Figure 1 represents one of our improved charts partly opened. Fig. 2 is an edge elevation of the same.

The object of this invention is to provide historical charts, commercial tables, statistical tables, interest-tables, insurance-tables, sociological tables, and other synchronous charts constructed in such a manner that events or other information for the same century, year, or other cycle of time can be readily compared.

The invention consists in a radially-folding synchronous chart constructed of a series of sector-shaped plates pivoted to a common center and divided into annular spaces by concentric lines, as will be hereinafter fully described and then claimed.

A is a plate, made in the form of a sector and of any desired or convenient size. The angle part of each plate A is slightly extended and enlarged, and has a hole formed through it, in the center of the circle of which the sector forms a part to receive a clamping-screw, B, an eyelet, or other suitable pivot.

In the drawings a set of plates, A, are represented as being connected by and pivoted to a screw, B, having a flat circular head.

Upon the screw B, at the other side of the plates A, is placed a flat circular washer, C, which is pressed down against the said plates

A, and is held in place by a hand-nut, D, placed upon the screw B, and screwed down against the said washer C, as shown in Fig. 2.

Any desired number of plates A can be secured to the same screw or pivot, and when thus secured can be so opened or unfolded as to be edge to edge, so that the matter in the same cycle of time and recorded on the parts of the said plates A, that form an annular space, can be readily compared as may be desired.

Such a number of plates A can be applied to the same pivot as will form a complete circle, or less or more than a circle, as may be desired.

The annular spaces upon which is printed the information belonging to the several cycles of time are separated by concentric lines, as shown in Fig. 1. In the illustration given in the drawings the several concentric spaces represent centuries.

When not in use, the sectors A can be folded together, as shown in Fig. 2, so as to take up but little space.

The outer plates, A, can be made thicker, heavier, and stronger than the others to serve as covers to the charts when folded.

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

A radially-folding synchronous chart constructed substantially as herein shown and described, and consisting of a series of sector-shaped plates having extensions pivoted to a common center and divided into annular spaces by concentric lines, as set forth.

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Witnesses:  
FRED LONGBOTHAM,  
LAURENCE J. CAIN.