## TREMAINE \& METCALF'S.

# EXPLANATIONS 㡙 PRINCIPAL ARTICLES OF THE CALENDAR. 

On the left hand page are given the Day of the Month. Day of the Week. Time of Sue rise and Sunset, to the nearest minute, local maan time; the Ennation of Time (". Sun frot or slow of Clock,") for the instant. of Apparent Noon at Greenwich, together with the hourly variation of the same.

The Sun's Declination is given for Greenwich Mean Noon with the hourly variations. If the declination at Apparent Noon (Greenwich Time) is required, it can be readily found by multiplying the houriy variation by the equation of time reduced to the decimal of an hour and applying the result to the declination at Mean Noon, as follows:

Deglination Inoreasing. $\dot{\text { Declination Decheasing. }}$ Sun slow of clock. Sun fast of clock. Sun slow of clock. Sun fast of clock, Add. Subtract. Subtract.

Add.
Examplas.
Find the Sun's Declinution at Greenwich Apparent Noon on January 15th and April 4th.

January 15, hourly variation $=28.09 \quad$ April 4 , hourly variation, $\quad 57.06$

$\begin{array}{ll}\text { Declina'n Mean Noon, } 21241.0 & \text { Declina'n Mean Noon, } 55125.7 \\ \text { Apparent Noon, } & 21230.4\end{array} \quad \begin{aligned} & \text { Apparent Noon, }\end{aligned}$
To find the days length-Subtract the time of sunrlise from 12 hours and add the time of sunset, or multiply the time of sunset by 2 , previously adding the equation if Sun is fast; subtracting, if slow :

| 20th May, | rurise | $\begin{gathered} 12 \mathrm{~h} 00 \mathrm{~m} \\ 426 \end{gathered}$ |
| :---: | :---: | :---: |
|  |  | 73 |
|  | Sunset | 726 |
| Days Len | t, | 1500 |

or Sunset

Equation, Sun Fast, \begin{tabular}{r}
7 <br>
\hline

 

26 <br>
<br>
$7 \frac{3}{29} \frac{42}{42}$ add <br>
\hline
\end{tabular}

