remains to ascertain what influence the earth may have exercised on the elements during the close proximity in 1585. This forms one object of my investigation, and I hope to communicate the results to the Society in a few weeks.

Elements of the Comet of 1585.
Perihelion passage, October, 799774  Uraniburg M. T.  New Style.

Longitude of Perihelion ........................ 9° 51' 10" 7
Longitude of Ascending Node .......... 37° 57' 51" 4
Inclination ........................................ 5° 25' 5" 0

Ratio of the eccentricity to the semi-axis major, $\sigma = 0.0262096$
Log. semi-axis major, $\sigma = 0.7935198$
Sideral period, 15.8 years.

"Mr. Bishop's Observatory, Dec. 12."


"1. Elements of $\mu^2$ Boötis, Σ 1938. The first micrometrical measure of this star is one by Sir W. Herschel in 1782, since which year the angle of position has changed about 60°, while the distance has been gradually diminishing. I have employed the method described by Sir John Herschel in the Memoirs of this Society. The great simplicity of this method may be conceived from the fact, that I have in more than one instance performed all the graphical constructions and calculations in less than three hours. My elements of $\mu^2$ Boötis are as follows:---

Perihelion passage, 1849'41.
Mean Annual Motion  =  - 36°102

Angle between the lines of Apssides and Nodes on the Orbit  ... 102° 23' 11
Node ............................................... 116° 54' 18
Eccentricity .......................................... $\sigma = 0.8746 = \sin 60° 59' 7"
Inclination to plane of heavens .......................... 58° 11' 12
Semi-axis major = 5°17'874
Period, 598 years.

"The formulae for the calculation of the angle of position ($\theta$) and the distance ($\xi$) are,

$$ E - [3°47807] \cdot \sin E = [1°55755] \cdot (1849'41 - t) $$
$$ \tan \frac{1}{2} v = [0°58730] \cdot \tan \frac{1}{2} E $$
$$ \tan (\theta - 116° 54') = [9°72199] \cdot \tan (v + 102° 23') $$
$$ \xi = [0°27381] \cdot \frac{\sin E \cdot \cos (\theta + 102° 23')} {\sin v \cdot \cos (\theta - 116° 54')} $$

Comparison with six selected Positions.

$\theta$ obsd. Comp. - obsd. $\xi$ obsd. Comp. - obsd.

1782'68 357 14  +o  22
1802'86 346 14  +o  49
1823'41 333 42  -2 12  1°65  -o'11
1826'78 327 0  +1  2  1°37  +o'09
1833'38 319 47  +o  1  1°15  +o'11
1842'40 300 58  +o  2  0°85  -o'01