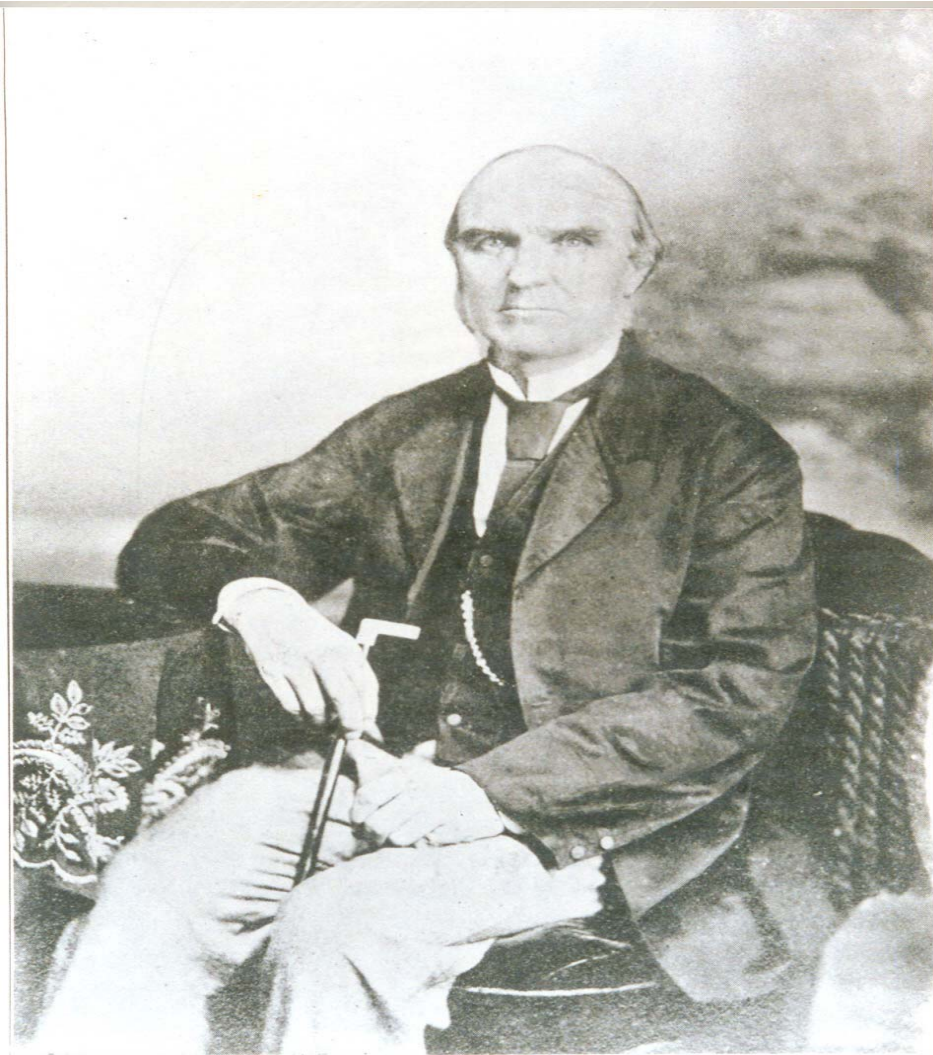


N. R. POGSON



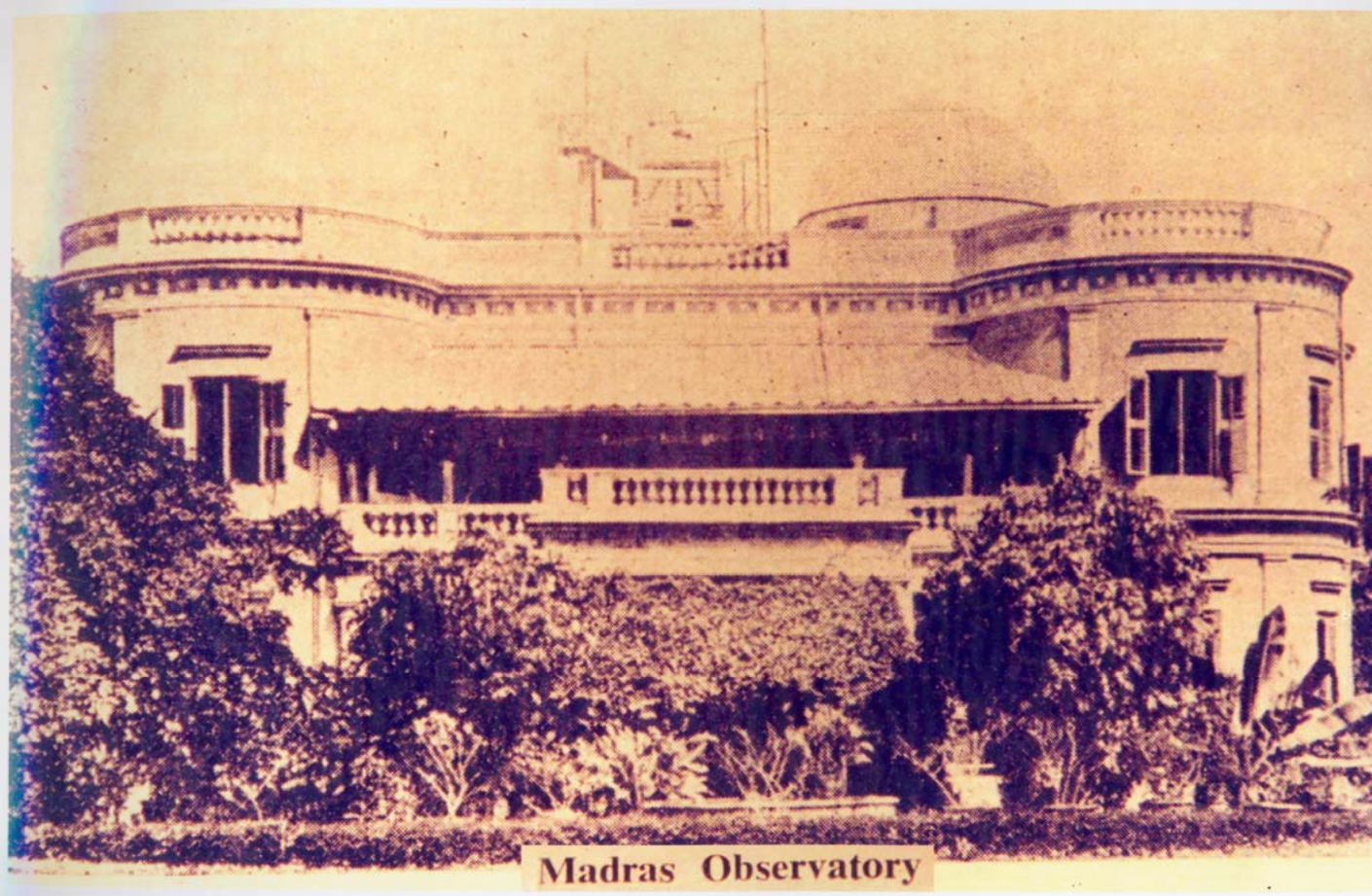
Portrait of Pogson taken from the Journal “Popular Astronomy” where T.S.H Shearman gives a detailed biography of N. R. Pogson. This is the only picture of Pogson we have found

N. R. Pogson



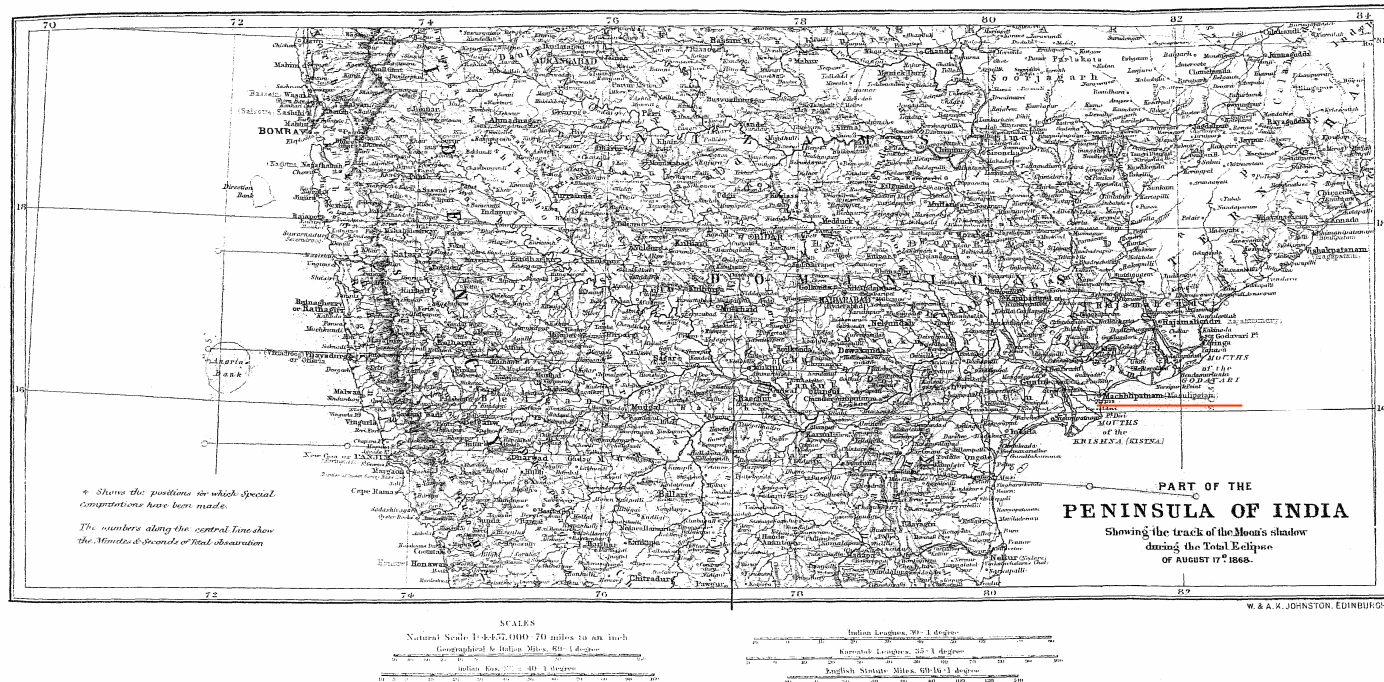
A picture of Pogson
from Ms Cherry
Armstrong's
collection.

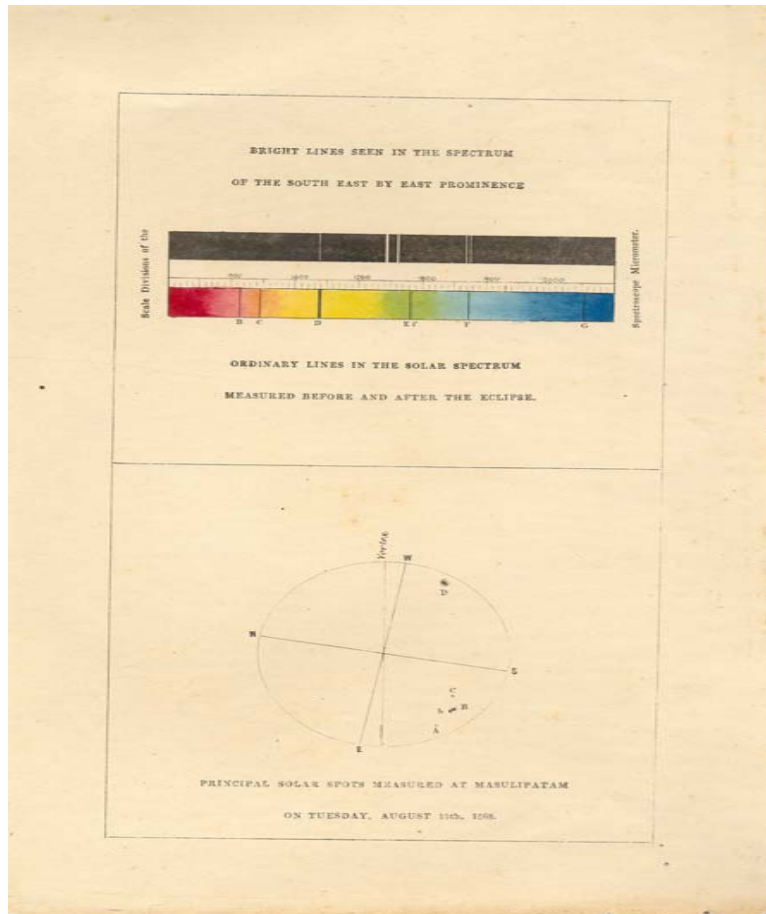
MADRAS OBSERVATORY BUILDING



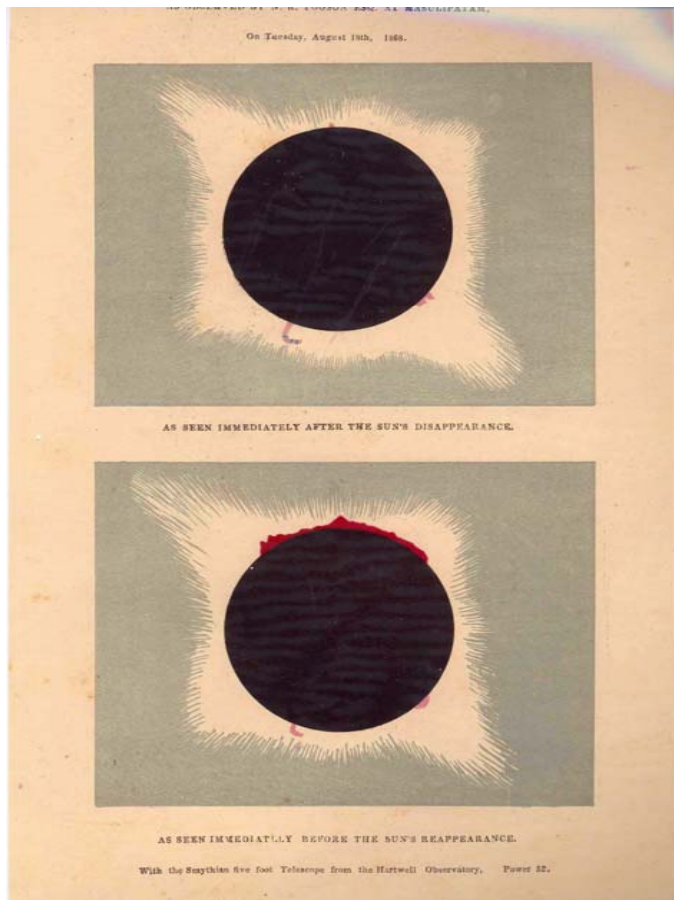
The building was constructed in the year 1792 on the river Cooum Nungambakkam, Madras. This is the building where Pogson worked for 30 years. It had more than 18 rooms, including astronomers office and a library. His residence was in a different block

Path of totality of the solar eclipse of 18th August 1868. Pogson was stationed at Masulipatam in Andhra Pradesh





Hand-painted Solar spectrum of the total Solar eclipse 1868 showing the D3 line



Hand-sketched picture of the sun during the total solar eclipse of 1868.

Pogson painted the prominences he observed in red colour

Madras Zones Reduced to 1861

| Mag. | Mean α | Mean δ | Remarks | Mag. | Mean α | Mean δ | Remarks |
|---------------------|---------------|---------------|-------------|---------------------|---------------|---------------|-------------|
| | h. m. s. | ° | | | h. m. s. | ° | |
| Asia April 18. 1861 | | | | Asia April 19. 1861 | | | |
| 12 | 15 50 20 | -16 1.0 | | 11 | 15 49 57 | -15 50 | |
| 12 | 50 52 | 16 4.0 | | 11.2 | 50 17 | 15 56 | |
| 2.9 | 51 21 | 15 29 | A | 2.9 | 51 22 | 15 29 | 12090 B.S.S |
| 6 | 15 52 12 | -16 4.0 | A.2 | 6 | 15 52 01 | -16 4.0 | 12105 B.S.S |
| Reduction | - 2 2 | + 6.5 | To 1855 | Reduction | - 2 2 | + 6.5 | To 1855 |
| Asia April 18. 1861 | | | | Asia April 19. 1861 | | | |
| 10 | 15 50 26 | -13 52.5 | Whim 15.907 | 5 | 15 50 25 | -13 52.5 | Whim 15.907 |
| 12 | 51 10 | 13 56 | | 12 | 50 50 | 13 56 | |
| 12 | 51 31 | 13 56.5 | | (2) | 50 55 | 13 56.5 | Asia |
| 12 | 52 12 | 13 | | 11 | 51 3 | 13 56.5 | |
| 11 | 52 19 | 13 57.5 | | 12 | 51 15 | 13 56 | |
| 11 | 52 22 | 13 58.5 | | 11 | 51 22 | 13 56.5 | |
| 2.9 | 52 16 | 14 2 | | 11 | 52 2 | 13 56.5 | |
| 10 | 53 02 | 13 59.5 | | 11 | 52 16 | 13 57.5 | |
| (2) | 56 9 | 13 56.5 | Asia | 10.11 | 52 22 | 13 56.5 | |
| 9.10 | 56 50 | 13 56 | | 10 | 52 23 | 13 57.5 | |
| 12 | 57 6 | 13 57.5 | | 12 | 52 29 | 13 57.5 | |
| 11 | 57 12 | 13 58 | | 12 | 53 40 | 13 58.5 | |
| 11 | 57 13 | 13 58 | | 12 | 53 4 | 13 58.5 | |
| 11 | 57 18 | 13 58 | | 10 | 52 56 | 13 58 | |
| 12 | 57 2 | 13 58.5 | | 12 | 53 29 | 13 58 | |
| 11 | 57 19 | 13 58 | | 12 | 54 15 | 13 58 | |
| 12 | 57 21 | 13 58 | | 12 | 54 8 | 13 58 | |
| 11 | 57 23 | -13 58.5 | | 12 | 54 28 | -13 58 | |

A page from the hand written catalogue maintained by Pogson where the first observations of minor planet “Asia” were recorded (1861).

Madras Equatorial Observations, 1836 January 22.

Trigonometrical Observations on Froughton's Comet - Equatorial, Over 95.

| | Circlet | | 1200 Stars | | Circlet - Star | | Refraction |
|------------------------------------------------------------|----------------------------------------------------------|----------------------|---------------------------------------------------|-------------------|---------------------------------------------------|----------------------------------|----------------------------------------------------------|
| | α | δ | α' | δ' | $\alpha - \alpha'$ | $\delta - \delta'$ | |
| 1200 Stars | | | | | | | |
| 33 35 17.26 ✓ + 12.22 ✓ 3.04 ✓ | 37 13.5 ✓ 39 3.2 ✓ 31 17.2 ✓ | 40 ✓ 40 ✓ 40 ✓ | 27 10.2 ✓ 29 0.2 ✓ 31 13.0 ✓ | 0 ✓ 0 ✓ 0 ✓ | - 3.5 ✓ - 3.0 ✓ - 3.5 ✓ | + 1.25 ✓ + 7.25 ✓ + 7.25 ✓ | $2^{\circ} 25'$ ✓ $20.15'$ ✓ $30'$ ✓ |
| 33 35 32.96 ✓ - 1 12.20 ✓ - 0.88 ✓ | 32 18.5 ✓ 33 18.2 ✓ | 40 ✓ 40 ✓ | 32 12.0 ✓ 33 12.5 ✓ | 0 ✓ 0 ✓ | - 4.5 ✓ - 3.0 ✓ | + 7.25 ✓ + 7.25 ✓ | 2.0026 ✓ 2.0023 ✓ 2.0027 ✓ |
| 121 59 07.56 ✓ - 1 12.20 ✓ - 0.88 ✓ | 37 12.5 ✓ 38 2.2 ✓ | 40 ✓ 40 ✓ | 18 10.2 ✓ 19 0.2 ✓ | 0 ✓ 0 ✓ | 3.5 ✓ - 3.0 ✓ | + 7.25 ✓ + 7.25 ✓ | 2.0026 ✓ 2.0023 ✓ 2.0027 ✓ |
| 121 59 44.82 ✓ - 1.20 ✓ | 30 00 33.74 ✓ - 1.20 ✓ | 40 ✓ | 28 32.76 ✓ - 0.12 ✓ | 0.12 ✓ | - 4.25 ✓ | + 7.25 ✓ | 2.0026 ✓ - 0.1220 ✓ 2.0017 ✓ |
| Circlet | | | 32 10 25.96 ✓ - 0.29 ✓ - 4.23 ✓ - 0.22 ✓ | | 121 59 40.0 ✓ + 6.4 ✓ + 7 50.4 ✓ + 1.0 ✓ | | 2.0026 ✓ 2.0023 ✓ 2.0027 ✓ 2.0012 ✓ |
| 127 32 ✓ 121 50 ✓ | 30 30 32.64 ✓ 30 50 31.76 ✓ 30 27 32 ✓ | 40 ✓ 40 ✓ 40 ✓ | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| 2.0026 ✓ 2.0023 ✓ 2.0027 ✓ 2.0012 ✓ | 37 15 10.11 ✓ | 40 ✓ | 20 10 20.62 ✓ | | 121 59 40.9 ✓ | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| 1.2026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| 1.2012 ✓ 0.0012 ✓ + 11.22 ✓ - 1.22 ✓ - 11.16 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |
| - 1.2012 ✓ - 1.2012 ✓ - 1.2012 ✓ | 2.0026 ✓ 2.0026 ✓ 2.0026 ✓ | | | | | | 2.0012 ✓ 2.0012 ✓ 2.0012 ✓ |

The Circlet round and with a fair nucleus -
the same about 1 1/2 in diameter.

A page from the handwritten manuscript of Pogson's observations on Comets

Since the above was in type, the following communication has been received from Mr. Pogson:—

Discovery of a New Planet, "Asia."

This planet was found, like each of my previous ones, by means of my own manuscript charts; not by mere gleaning in the celestial fields prepared by other astronomers; a circumstance which enables me to assume with reasonable probability that I shall not have been preceded elsewhere. As it is the first discovery yet made in this quarter of the world, I have selected the name "*Asia*," who, as one of the Oceanides, has, I conceive, as good a right to a place in the heavens as *Europa*, *Doris*, or several others of her sisterhood. The planet is between the 11th and 12th magnitudes.

The following observations have been taken by the Boguslawski method, using only one thick bar and two comparison stars, there being no dark field micrometer attached to the telescope. I believe them to be fully equal to any I could have made of so faint an object, had the most refined instrumental means been at hand.

| 1861. | Madras M.T. | App. R.A. | | | App. N.P.D. | | | Log. of Par. x Δ. | | Comp. Stars. |
|----------|-------------|-----------|----|----|-------------|-----|------|-------------------|--------|--------------|
| | | h | m | s | h | m | s | R.A. | N.P.D. | |
| April 17 | 12 53 40 | 15 51 | 14 | 76 | ... | ... | ... | -9.265 | ... | bc |
| 17 | 14 7 37 | 15 51 | 13 | 56 | 106 | 6 | 22.9 | +6.704 | -0.620 | bc |
| 18 | 11 50 39 | 15 50 | 50 | 72 | 106 | 1 | 12.7 | -9.501 | -0.578 | bc |
| 19 | 13 49 27 | 15 50 | 20 | 72 | 105 | 55 | 7.0 | -8.368 | -0.617 | bc |
| 20 | 11 46 44 | 15 49 | 53 | 93 | 105 | 49 | 50.1 | -9.686 | -0.579 | bc |
| 20 | 13 20 12 | 15 49 | 51 | 84 | 105 | 49 | 26.6 | -8.934 | -0.614 | bc |
| 21 | 11 59 5 | 15 49 | 22 | 97 | 105 | 43 | 55.3 | -9.431 | -0.587 | ab |

The second observation, on April 20, was taken and reduced by my fourth native assistant, Raganootha Chary, who readily comprehends and most willingly executes whatever I may recommend to his notice.

The adopted mean places of the comparison stars were these:—

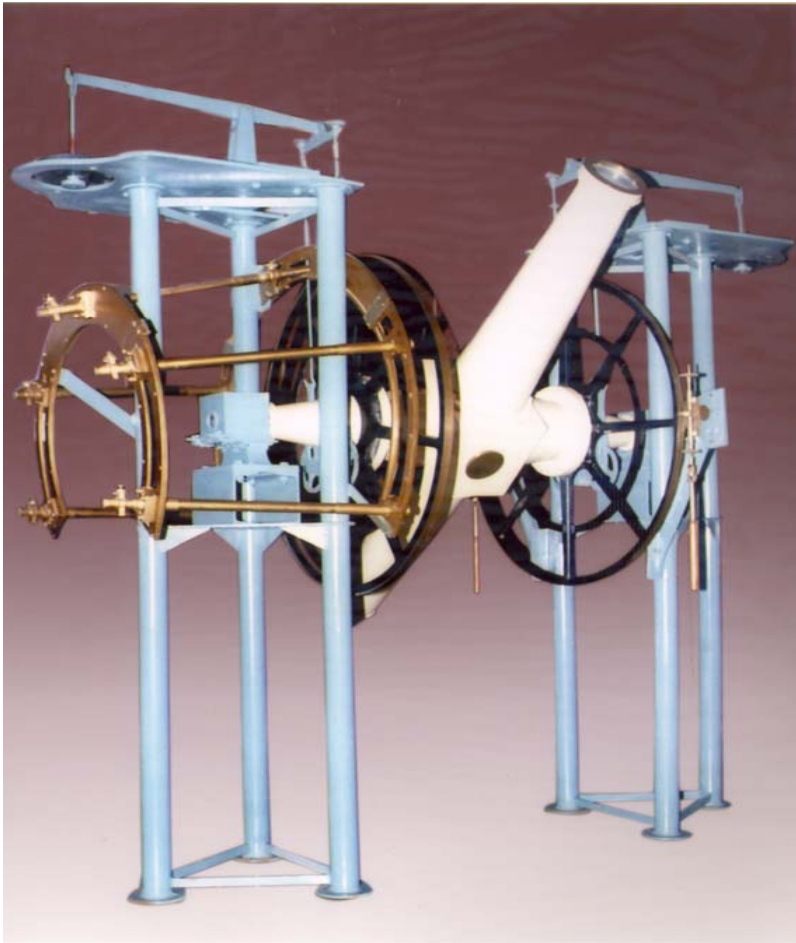
| | | Mean R.A. 1861. | | | Mean N.P.D. 1861. | | |
|---|-----------------------------|-----------------|----|-------|-------------------|----|------|
| | | h | m | s | h | m | s |
| a | A.Z. 297.58 = 28997 Lalande | 15 | 49 | 13.23 | 105 | 37 | 30.4 |
| b | A.Z. 205.62 | 15 | 51 | 20.78 | 105 | 49 | 11.5 |
| c | 2026 Mädler's Bradley | 15 | 52 | 31.93 | 106 | 7 | 14.7 |

The right ascension of 28997, being 6 seconds of time too great, was rejected, and Argelander's alone employed.

Madras Observatory, April 27, 1861.

Announcement of the discovery of a New planet 'Asia'.

Transit Circle by Troughton and Simms



In the year 1858, the Madras Observatory acquired a transit circle manufactured by Messrs Troughton and Simms. This was based on a design made by Astronomer Royal G. B Airy. This Transit Circle had an object glass of 5" aperture and a divided circle of 42" diameter, which was read by 6 microscopes.

The instrument was commissioned in 1862 and was extensively used by Pogson for 25 years. The instrument was brought to Kodaikanal in 1941 and was in a damaged condition. It was later reassembled and displayed in Bangalore IIA campus

Six inch equatorial manufactured by Lerebours and Secretan



Six inch equatorial by Lerebours and Secretan. This was extensively used by Pogson and in 1861 he discovered his first minor planet "Asia" with this telescope. This telescope has been in Kodaikanal since 1899. It is mounted in the North Dome and is used to take direct photographs of the Sun.

Eight inch equatorial by Troughton and Simms 1864



8" Equatorial by Troughton and Simms (1864) also used for several observations by Pogson. The discovery of the asteroid Sylvia was made with this telescope. It was sent to Kodaikanal 1931 and was mounted in the South Dome in 1960 by Dr. Bappu. This was used for several stellar observations for many years

South and North Dome building in Kodaikanal where 8" and 6" telescopes used by Pogson are mounted



First page of Variable star catalogue

OBSERVATIONS
OF
THIRTY-ONE VARIABLE STARS

BY THE LATE
N. R. POGSON

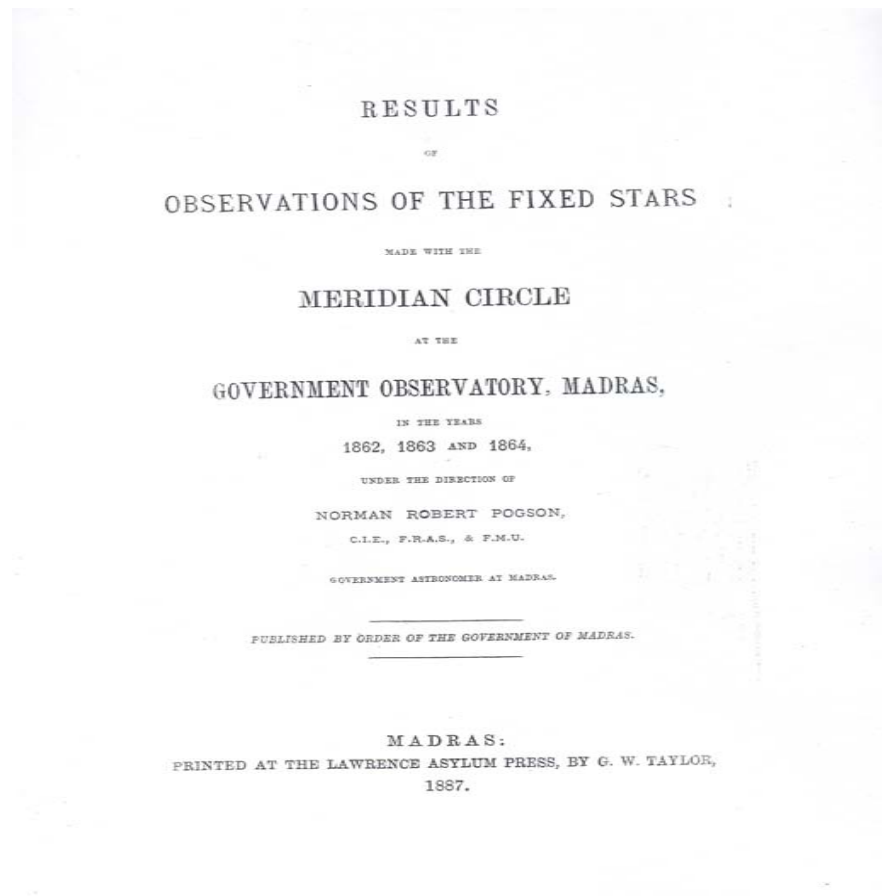
EDITED BY
C. L. BROOK, M.A., F.R.MET.S.

WITH AN INTRODUCTION BY
H. H. TURNER, D.Sc., F.R.S.
SAVILLIAN PROFESSOR OF ASTRONOMY IN THE UNIVERSITY OF OXFORD

LONDON
ROYAL ASTRONOMICAL SOCIETY
BURLINGTON HOUSE

1908

Title page of the Observations of the fixed stars made with the meridian circle





Pogson`s grave at St.
George`s Cathedral,
Madras



A Brass plaque placed inside St. George's Cathedral in memory of Pogson

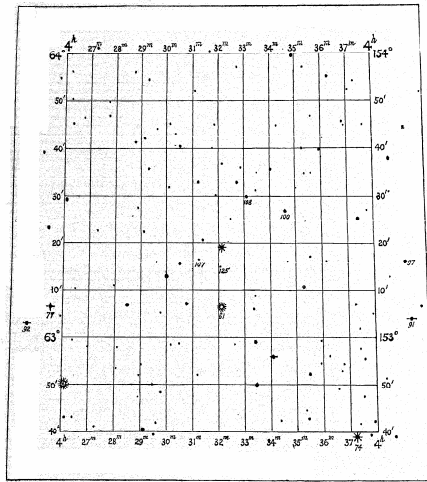
Reads as follows

“In memory of Norman Robert Pogson, C.I.E., F.R.A.S., Government Astronomer at Madras for 30 years. Born at Nottingham, on the 23rd March, 1829, died at Madras on the 23rd June, 1891. By his valuable contributions to Astronomy, and by his discoveries of Stellar Phenomena, especially of minor planets and variable stars, he earned an enduring name. *Thine eyes shall see the King in his beauty; they shall behold the land that is very far off.*

Isaiah 33, verse 17.

Mr. Pogson's Diagram, Epoch 1860.

R Reticuli.



This star is not included in the *Atlas Stellarum Variabilium*.

R Reticuli.

PARTICULARS from CHANDLER'S "Third Catalogue of Variable Stars" (*A.J.*, 379) and Revision (*A.J.*, 553).

No. 1655 *R Reticuli*, R.A. 1900, 4^h 32^m 5, Dec. 63° 14' S.
 Max. mag. 7^m. Min. < 13^m.
 Maximum, 1864 February 5, 2.401907 (Julian).
 Period, 280 E (279.5, Revision).

Discovered by RAGOONATHA CHARY in 1867.

R Reticuli.

| Date. | Julian. | Hel. | Power. | Comparisons. | Declined Mag. | Corr. to H. | Date. | Julian. | Hel. | Power. | Comparisons. | Declined Mag. | Corr. to H. |
|----------|---------|------|--------|------------------|---------------|-------------|----------|---------|------|--------|----------------------------|---------------|-------------|
| 1867 | 490000 | | | | | | 1858 | 490000 | | | | | |
| Sept. 26 | 3236 | S | 85 | Est. 117 125 - 3 | 12.0 | | Jan. 31 | 7016 | S | 73 | = 107 108 - 2 | 107* | |
| 1872 | | | | | | | Feb. 5 | 7021 | " | " | 108 + 3 125 - 10 | 11.3 | |
| Feb. 12 | 4836 | " | 70 | Invisible | < 13.0 | | 19 | 7025 | " | " | 100 + 13 125 - 4 | 11.7 | |
| 1874 | | | | | | | 26 | 7042 | " | " | 125 + 4 | 12.9 | |
| Jan. 14 | 5538 | L | 63 | 61 + 11 77 - 4 | 7.3 | | 1879 | | | | | | |
| Mar. 19 | 5022 | " | 100 | 100 + 6 107 - 6 | 10.5 | | Jan. 20 | 7379 | " | " | Invisible | < 13.0 | |
| 1875 | | | | | | | 1884 | | | | | | |
| Jan. 16 | 5905 | " | " | 107 + 7 125 - 1 | 11.9 | | Feb. 21 | 9228 | " | 76 | 97 + 2 100 - 3 | 9.8 | |
| Nov. 4 | 6197 | S | 73 | 125 + 7 | 13.2 | | 1890 | | | | | | |
| 1877 | | | | | | | Oct. 26 | 1302 | " | " | Invisible | < 13.5 | |
| Oct. 13 | 6906 | " | " | 74 + 4 100 - 5 | 8.7 | | 1890 | | | | | | |
| Nov. 29 | 6953 | " | " | 91 - 4 | 8.7 | | Oct. 17 | 1658 | " | " | 100 + 8 107 + 2 108 + 1 | 10.9 | |
| Dec. 15 | 6969 | " | " | 91 + 4 100 - 3 | 9.0* | | Dec. . . | 1 | " | " | Estimated | 9.3 | |
| 28 | 6982 | " | " | 91 + 6 100 - 3 | 9.7 | | 1891 | | | | | | |
| 1878 | | | | | | | Jan. 27 | 1760 | " | " | 100 + 3 107 - 5 | 10.3 | |
| Jan. 28 | 7013 | " | " | 108 + 9 107 - 1 | 10.8 | | Feb. 28 | 1792 | L | 110 | 125 + 5 | 13.0 | |

1877 Oct. 13. Probably some error in this observation.—[C. L. R.]
 1890 Dec. Data not given and observations uncertain.—[C. L. R.]

Discovery of the Variable star R Reticuli (1867) by Ragoonathachary who was Pogson's able assistant

Hartwell House at Kodaikanal which was designed and constructed by William Pogson, son of Norman Robert Pogson

