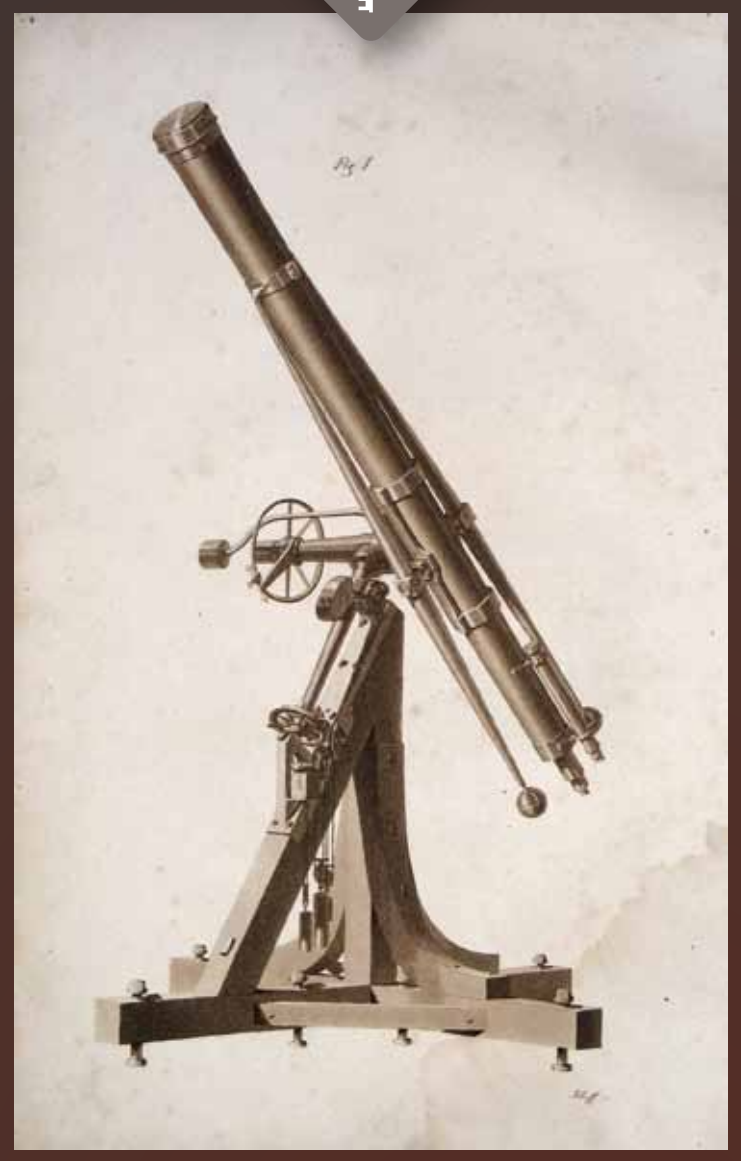


Did You know that

the world's first modern refracting telescope is housed in the Tartu Observatory?

By using it, the distance of Earth from another star was determined for the first time. This Fraunhofer refractor was purchased for the Observatory in 1824, and its setup, or design, became immediately known as the "German structure" around the world. From 1824 to 1839, it was the world's biggest and best telescope of this type, and with minor modifications would enjoy general use for another hundred years.

Tiesitkö, että maailman ensimmäinen moderni linssikaukoputki sijaitsee Tarton tähtitornissa? Sillä määritettiin ensimmäistä kertaa toisen tähden etäisyys maasta.

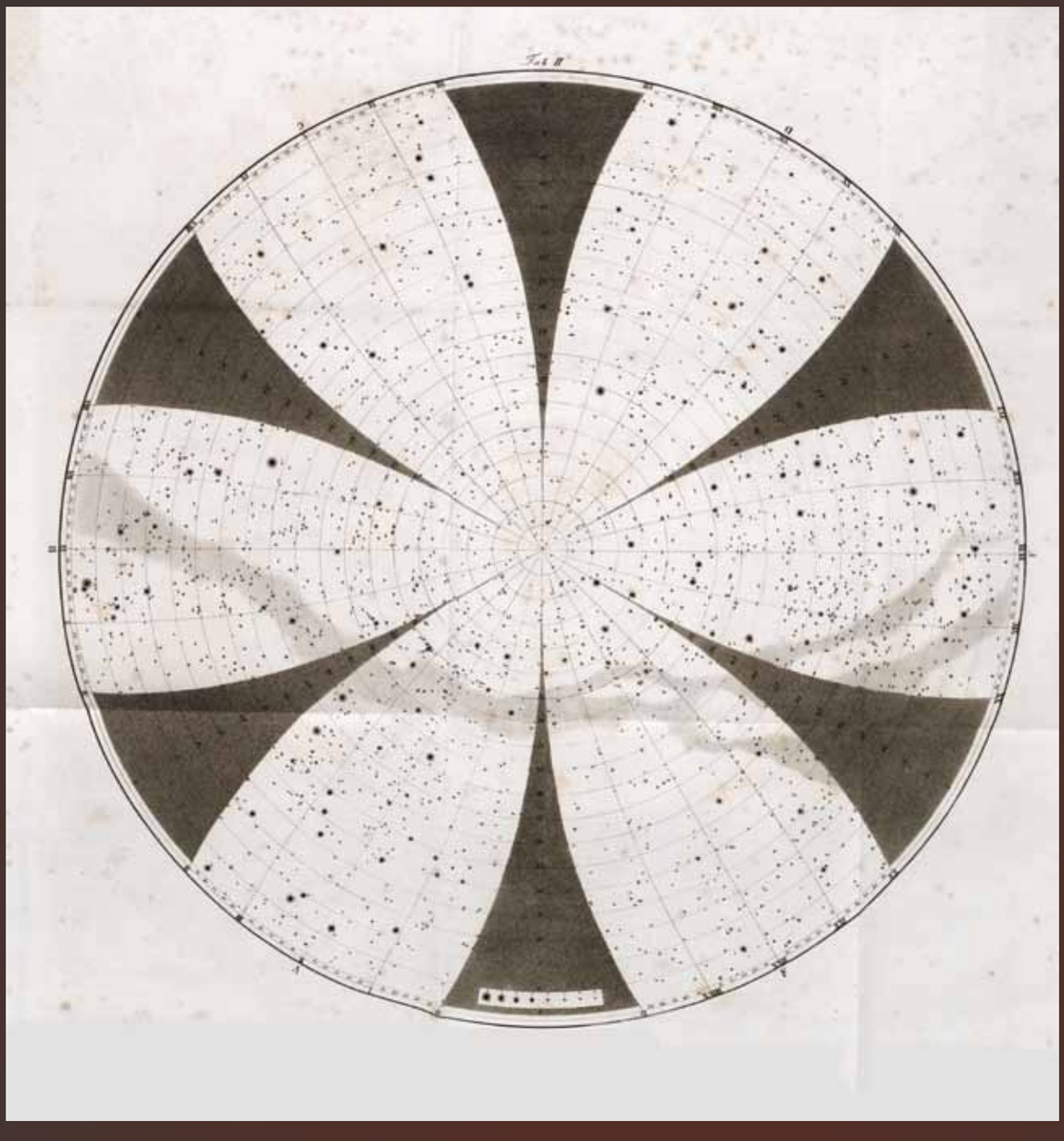
Tämä Fraunhoferin refraktori ostettiin tähtitornille vuonna 1824 ja sen asennus eli tekninen ratkaisu tuli heti tunnetuksi maailmanlaajuisesti ”saksalaisen asennuksen” nimellä. Vuosina 1824–1839 se oli maailman suurin ja parhain tämän tyyppinen kaukoputki, pienten parannusten kanssa se oli käyttökelpoinen vielä sadan vuoden ajan.

Знаете ли вы, что первый в мире современный линзовый телескоп находится в Тартуской обсерватории? Им впервые измерили расстояние от земли до звезды.

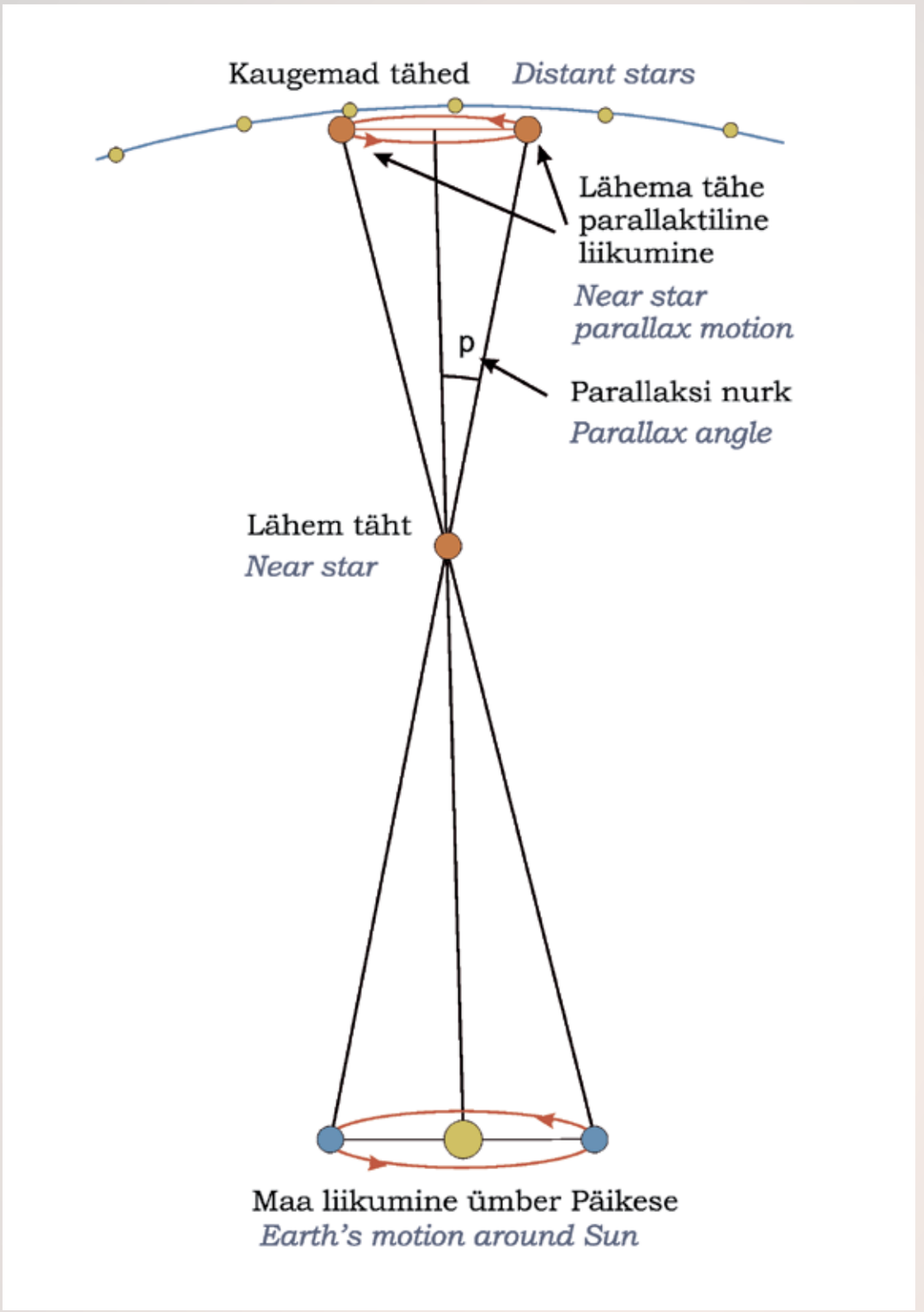
Этот рефрактор Фраунхофера был куплен для обсерватории в 1824 году и его монтаж (техническое решение) сразу стал всемирно известен под названием “немецкий монтаж”. В 1824 – 1839 годах это был крупнейший в мире и лучший телескоп такого типа, который с небольшими усовершенствованиями прослужил еще в течение столетия.

Kas teadsid, et maailma esimene modernne läätsteleskoop asub Tartu tähetornis? Sellega määrati esmakordselt ära teise tähe kaugus Maast.

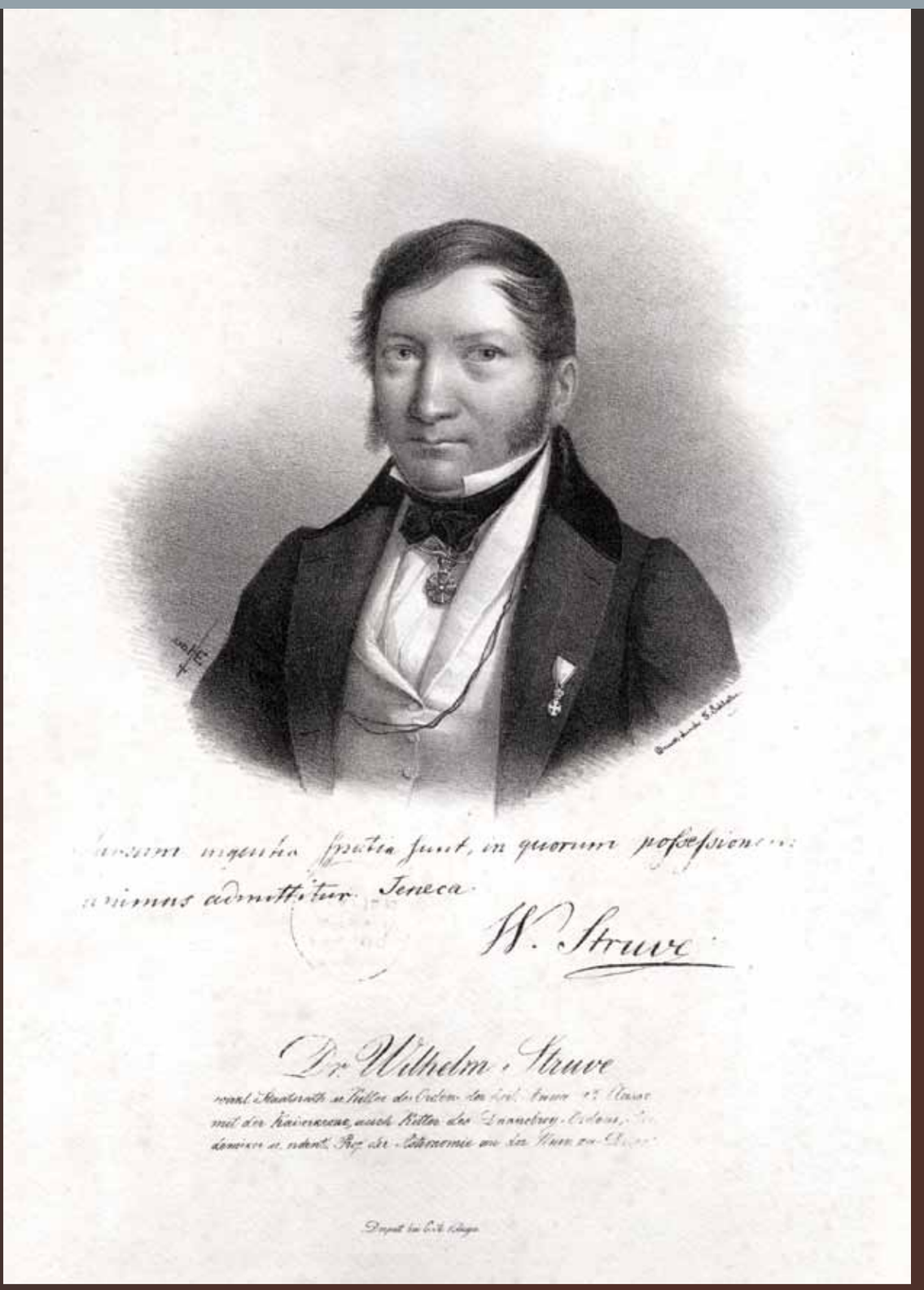
See Fraunhoferi refraktor osteti tähetornile 1824. aastal ja selle monteering ehk tehniline lahendus sai kohe ülemaailmselt tuntuks “Saksa monteeringu” nime all. Aastail 1824-1839 oli see maailma suurim ja parim seda tüüpi teleskoop, väikeste täiendustega oli see üldkasutatav veel saja aasta jooksul.



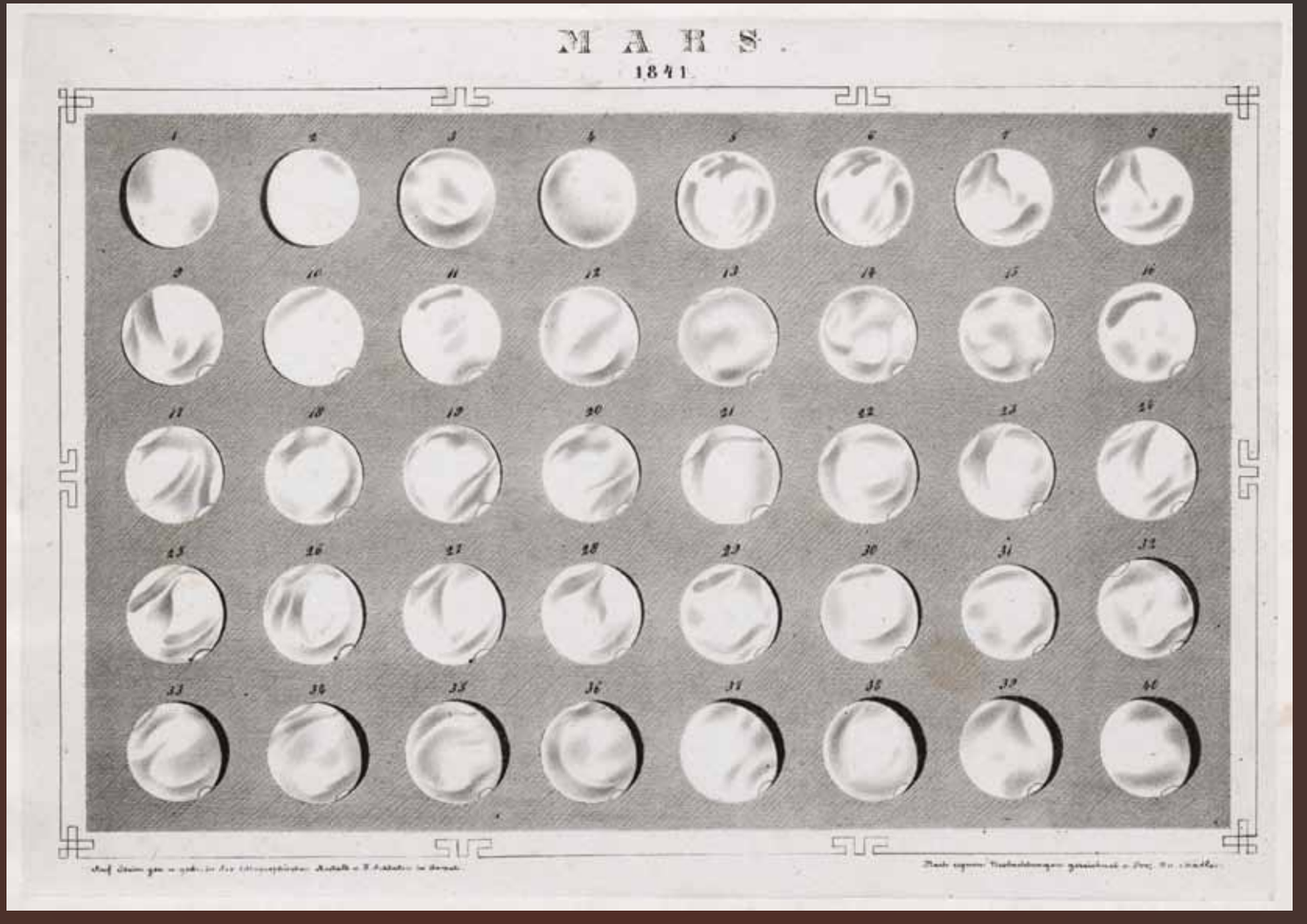
Friedrich Georg Wilhelm von Struve, astronomer at the Tartu Observatory (1793 – 1864), has gone down in the annals of science as the researcher of double and multiple stars, and was employed to determine cosmic distances in Struve's times.



In 1835 and 1836, Struve was one of the first in the world to measure the distance to a star.

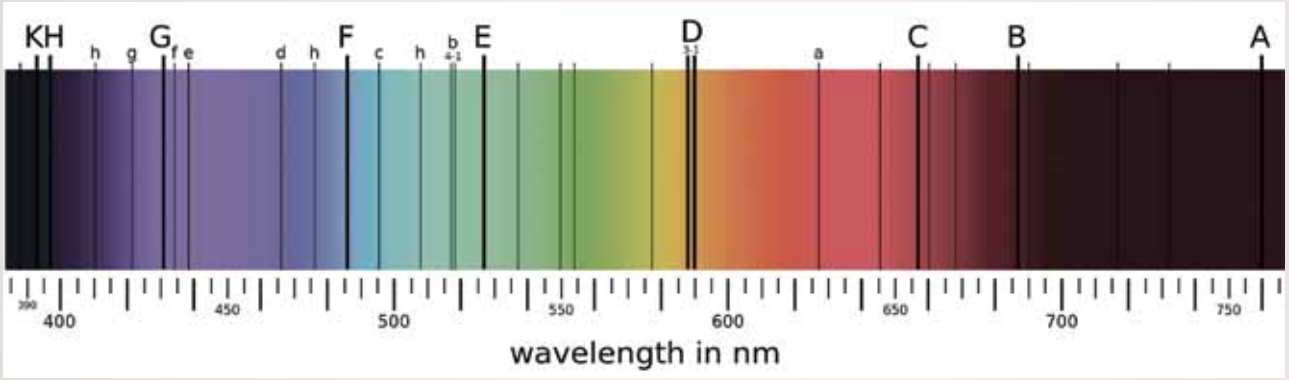


Friedrich Georg Wilhelm von Struve worked at Tartu Observatory from 1813, as Director from 1820 to 1839. Amongst other things, his accomplishments included measuring the meridian arc passing through the Tartu Observatory, which enabled the shape and size of the globe to be ascertained.



The German astronomer Johann Heinrich Mädler was enticed to come to Tartu by the opportunity to work with a very good telescope in order to study Mars.

At the Tartu Observatory, Mädler also continued his study of the contour of the Moon's surface, which he had begun in Germany.



One of the pioneers of astrophysics, von Fraunhofer discovered dark absorption lines in the optical spectrum of the Sun and invented a diffraction grating, which he used to study the spectra of other stars and planets. Amongst other things, astrophysics studies the properties (luminance, density, temperature and chemical composition) of stars, galaxies and the interstellar environment.

The world-famous telescope at the Observatory was designed by Joseph von Fraunhofer, a German optician well known for crafting telescope lenses.

Professor Taavet Rootsmäe, Director of the Observatory, and staff. First on the left is the world-famous Estonian astronomer Ernst Julius Öpik.

Von Fraunhofer's refractor, the crown jewel amongst the exhibits at Tartu Observatory.

In Estonia's cultural history, astronomy has a special place, since the research done at Tartu Observatory has repeatedly altered humankind's understanding of the Earth and the Universe.

Astronomy fans are in for public observation nights when you can have a look at the planets nearest the Earth and the Moon through a Zeiss telescope (1912) that is one hundred years old.