

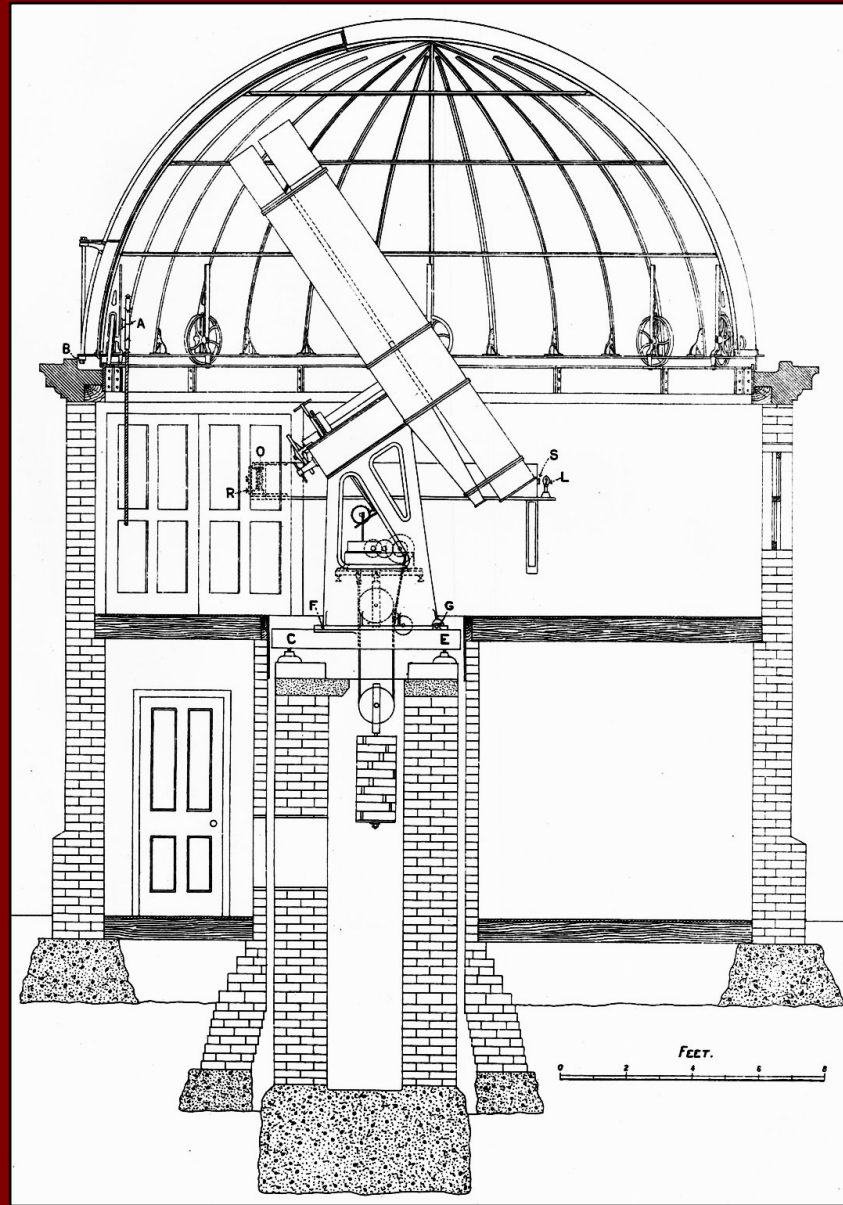
ASTROGRAPHIC TELESCOPE (1890)

In 1887 an international conference was held in Paris with the idea of making a photographic map of the sky. David Gill of the Royal Observatory was one of the leaders of this movement.

About 12 observatories worldwide took part and each had a particular zone of the sky to observe. The telescopes were designed to be as similar as possible.

The Cape was assigned from -42° to -52° in declination. Coverage of this area involved 1632 separate exposures of $2^\circ \times 2^\circ$ pieces of the sky. The positions of about 500,000 stars were measured.

The telescope and tube were built by Sir Howard Grubb of Dublin. The main tube carried a lens of 33 cm diameter and 3.43 m focal length to give a scale on the photographic plate of 1 arcmin per mm.



Early photographic plates were only sensitive to blue light so the main 33 cm telescope was optimized for this and is not suitable for visual observations.

Over the years this telescope was also used for precision photoelectric photometry (measuring the brightnesses of stars).

The original clockwork drive system was locked to the observatory's master clock using the pendulum at the side of the dome. Nowadays a synchronous electric motor provides power.

The mount at present carries a 40 cm Newtonian reflector that was used for making infrared measurements.

One photographic exposure could take an hour or more and so a smaller visible-light guide telescope of 25 cm diameter was also provided. The observer had to keep adjusting the telescope using the guider.