



ROYAL BOTANIC
GARDENS VICTORIA

Royal Botanic Gardens Victoria

Melbourne Gardens

The Photoheliograph at the Melbourne Observatory

A photoheliograph is a telescopic camera for photographing the Sun. It was invented in the mid-19th century by Warren De La Rue, astronomer and pioneer photographer. This example was one of several of an improved design constructed by J.H. Dallmeyer of London in 1874.

It cost the Colony of Victoria £364, and was installed at Melbourne Observatory in time to photograph the transit of Venus across the face of the Sun in 1874. Over the following decades, thousands of its solar images on glass plates were sent to the Royal Observatory at Greenwich for research on the sunspot cycle.

The instrument weighs about 470 kg, but can be dismantled to facilitate transport. It was taken on solar eclipse expeditions to Tasmania, Tonga and Goondiwindi. An alternative lower end on the tube allowed the Sun's corona to be photographed during the total phase of the eclipses. This Photoheliograph was sold by public tender to an amateur astronomer after the Observatory ceased professional astronomy in 1944. It continued in use at the Observatory until it had to be removed in 1962 as a condition of the sale.

After 42 years of storage in suburban homes, it was re-installed in its original dome by courtesy of the Director of the Royal Botanic Gardens Melbourne, in time for the June 2004 transit of Venus. Unlike most of the other surviving Dallmeyer photoheliographs, it has not been modernised.

Notes courtesy of Dr Barry Clark of the Astronomical Society of Victoria Inc. Image: B.A.J. Clark Australia 2004.

