THE COTTER MEDICAL HISTORY
MUSEUM

Polarimeter

When a ray of polarised light is transmitted through some mediums (e.g fluids, crystals), the path of that ray may be deflected as a result of its interaction with the medium. Devices to measure the angle of that deflection were developed in the mid-18th century, with this method finding application in medicine by the turn of the century. The Cotter collection contains polarimeters made by a different manufacturers, the finest however is that made by the Field & Co. (Birmingham). This instrument has recently been repaired and refurbished and is now on display.

In medicine in the first half of the 20th century, polarimeters were routinely used to provide information about both liquid sample composition and the concentration of specific chemicals. Using this device specialists were able to estimate the amount of sugar and albumin in urine, vitamin/antibiotic/drug concentrations in blood and urine, and advance toxicology-related investigations.