

In 1879 he was elected a Fellow of the Institute of Chemistry of Great Britain and Ireland; in 1885 he was made an Honorary Member of the Pharmaceutical Association of the Province of Quebec, Canada; in 1888 he was elected a Member of the Mineralogical Society of Great Britain and Ireland; and in 1895 Queen's University, Kingston, Canada, conferred upon him the degree of Doctor of Laws, *honoris causâ*. He is also one of the twenty original Fellows who constituted the Section of Mathematical, Physical, and Chemical Sciences, of the Royal Society of Canada, at the time of its formation in 1882, a status conferred upon him by the then Governor-General of Canada, His Excellency the Right Honourable the Marquis of Lorne, now His Grace the Duke of Argyll, K.T., *et cætera*, the Founder of the Society.

He is the author of numerous reports published in the Reports of Progress and Annual Reports of the Geological Survey of Canada, and also of many 'papers' on chemical and mineralogical subjects appearing in other scientific publications, as is more precisely referred to in the ensuing pages.

While in charge of the Phytochemical Laboratory attached to the Melbourne Botanic Garden, Victoria, Australia, he carried out, among other, the undermentioned work, the detailed results of which are given in the publication or publications cited at the close of each separate 'inquiry.'

1. An inquiry into the tanning properties of the barks of certain Victorian native trees and, in connection with this, the determination of the percentage of tannic acid and gallic acid in the bark of respectively—*Acacia penninervis* (Sieber), *A. suppersa* (F. von Mueller), *Angophora intermedia* (De Candolle), *Banksia serrata* (Linnæus), *Brachychiton populneum* (R. Brown), *Eucalyptus amygdalina* (Labillardière), *E. corymbosa* (Smith), *E. longifolia* (Link), *E. obliqua* (L'Heritier), *E. Stuartiana* (F. von Mueller), *Eugenia Smithii* (Poiret), and of *Pittosporum undulatum* (Ventenat).—See "Report on the Vegetable Products exhibited in the Intercolonial Exhibition of 1866-67," pp. 39, 40. By Dr. Ferd. Mueller, F.R.S., Melbourne, 1867.

2. An investigation into the amount of potash contained in, respectively, the leaves, branchlets and branch-wood, and trunk-wood, of certain trees indigenous to Victoria, Australia, namely,—*Acacia decurrens* (Willdenow), *Banksia Australis* (R. Brown), *Casuarina quadrivalvis* (Labillardière), *C. suberosa* (Willdenow),