

**SOME ELECTRO-CHEMICAL
CENTRES: A REPORT TO
THE ELECTORS OF THE
GARTSIDE SCHOLARSHIPS**

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Some Electro-Chemical Centres: A Report to the Electors of the Gartside Scholarships by J. N. Pring

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J. N. PRING

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Some Electro-Chemical Centres

A REPORT

To the Electors of the Gartside Scholarships

BY

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Gartside Scholar

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THE GARTSIDE REPORTS.

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Every scholar must enter the University of Manchester for one Session for a course of study approved by the electors. The remainder of the time covered by the Scholarship must be devoted to the examination of subjects bearing upon Commerce or Industry in Germany or Switzerland, or in the United States of America, or partly in one of the above-mentioned countries and partly in others, but the electors may on special grounds allow part of this period of the tenure of the Scholarship to be spent in study and travel in some other country or countries. It is intended that each scholar shall select some industry, or part of an industry, or some business, for examination, and investigate this comparatively in the United Kingdom and abroad. The first year's work at the University of Manchester is designed to prepare the student for this investigation, and it partly takes the form of directed study, from publications and by direct investigation, of English conditions with regard to the industrial or commercial subjects upon which research will be made abroad in the second year of the scholarship. Finally, each scholar must present a report, which will as a rule be published.

The value of a Scholarship is about £80 a year for the time spent in England, £150 a year for time spent on the Continent of Europe, and about £250 a year for time spent in America.

PREFACE.

THE following report is based principally on information acquired during visits to several countries on the Continent of Europe and to the United States and Canada, including British Columbia, during the years 1907 and 1908.

Though the electro-chemical industry is developing rapidly in many directions, the various works in this field are yet comparatively few in number and are located in widely scattered centres. For this reason, a comprehensive survey of the subject is made rather difficult. Moreover, the majority of electro-chemical works are still in a more or less experimental state, and the details of the processes are usually held in strict secrecy so that admittance is, in many cases, very difficult and often quite impossible to obtain by outsiders.

The developments of this industry, however, are well recorded in several important publications, the chief journal of this kind being the "Electro-chemical and Metallurgical Industry" (New York).

In the compiling of this report I wish to acknowledge my indebtedness to Dr. R. S. Hutton for his kind assistance throughout and for furnishing me with valuable introductions in the United States to the leading people of academic and industrial electro-chemistry, who gave me much information and kindly extended several opportunities for inspecting works. In this connection, I have specially to thank Prof. J. W. Richards, Prof. W. D. Bancroft, Prof. S. A. Tucker, Mr. E. R. Taylor, Dr. E. F. Roeber, Dr. H. N. Potter, Mr. T. A. Edison, Mr. E. A. Sperry, and Mr. G. C.