CANADA'S METALS: A LECTURE DELIVERED AT THE TORONTO MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, AUGUST 20, 1897

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649314256

Canada's Metals: A Lecture Delivered at the Toronto Meeting of the British association for the advancement of science, August 20, 1897 by W. C. Roberts-Austen

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

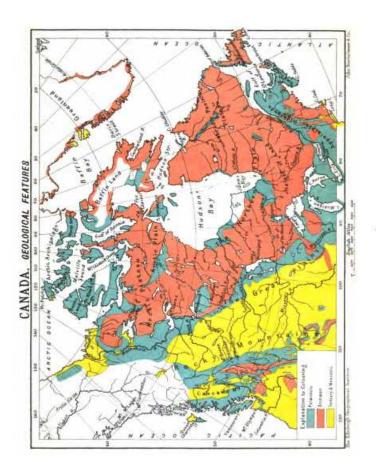
W. C. ROBERTS-AUSTEN

CANADA'S METALS: A LECTURE DELIVERED AT THE TORONTO MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, AUGUST 20, 1897



That

CANADA'S METALS



CANADA'S METALS

A LECTURE

DELIVERED AT THE

TORONTO MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

August 20, 1897

BY

PROFESSOR ROBERTS-AUSTEN, C.B., D.C.L., F.R.S.

ASSOCIATE OF THE ROYAL SCHOOL OF MINES VICE-PRESIDENT OF THE CHEMICAL SOCIETY CHEMIST AND ASSAYER OF THE MINT FROFESSOR OF METALLORGY, ROYAL COLLEGE OF SCIENCE

London MACMILLAN AND CO. LIMITED

NEW YORK: THE MACMILLAN COMPANY 1898

All Rights Reserved

RICHARD CLAY AND SONS, LIMITED LONDON AND BUNGAY

PREFACE

This lecture was delivered during the Meeting of the British Association at Toronto under the presidency of Sir John Evans, and before His Excellency the Governor-General of Canada.

It was repeated recently, by the request of Sir Frederick Abel, at the Imperial Institute where the economic resources of the Empire are so fittingly represented. On that occasion the chair was taken by Lord Strathcona and Mount Royal, High Commissioner for the Dominion of Canada. It is published in accordance with a wish expressed by him, and the author feels it to be the privilege of one who loves the Dominion to insist on the mutual dependence of the Mother Country and her majestic Daughter. Hence the following attempt to make the mineral wealth of Canada better known.

W. C. R-A.

BLATCHFELD, CHILWORTH, December, 1897. 85 а 學 数 数 888

LIST OF ILLUSTRATIONS

MAP OF THE GEOLOGICAL FEATURES OF CANADA . Frontispiece
Fig. 1.—Comparison between a Stream of Molten Gold and a Stream of Water
Fig. 2.—A Falling Marble, Photographed at the Instant of Contact with the Surface of Milk To face page 33
Fig. 3.—Splash produced by the Marble about 100th of a second after Contact with Milk
Fig. 4.—Splash produced by same Marble about $\frac{1}{10}$ th of a second after Contact with Milk To face page 33
Fig. 5.—Gold Bullet approaching a Pool of Molten Gold To face page 34
Fig. 6.—Splash produced by the same Bullet about 100 th of a second after Contact with the Molten Gold. To face page 34
Fig. 7.—Splash produced by Steel Projectile on Steel Armour Plate in rooth of a second To face page 34
Fig. 8.—Splash produced on Hard Armour Plate by Projectile (Plan)
Fig. 9.—Another Splash produced by Projectile on Armour Plate (Plan)
Fig. 10,—Heap of Nickeliferous Regulus, Copper Cliff Mine, Sudbury, Canada
Fig. 11.—Section through a Nodule of Metallic Nickel showing Concentric Layers of Nickel, A. released from its Compound with Carbonic Oxide and Deposited on a Nucleus of Ordinary Nickel, B. The Nodule was 3 inch in length. The magnification is 140 diameters
Fig. 12.—Crystal of a Platinum Mineral, magnified 450 diameters To face page 42
Fig. 13.—Electric Furnace To face page 44