ASSAYING. IN THREE PARTS. PART 1ST. - GOLD AND SILVER ORES; PP. 1-105

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649065202

Assaying. In Three Parts. Part 1st. - Gold and Silver Ores; pp. 1-105 by C. H. Aaron

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

C. H. AARON

ASSAYING. IN THREE PARTS. PART 1ST. - GOLD AND SILVER ORES; PP. 1-105

Cult. in in

ASSAYING.

IN

THREE PARTS.

PART 18t.—GOLD AND SILVER ORES; PART 2d.—GOLD AND SILVER BULLION; PART 3d.—LEAD, COPPER, TIN, MERCURY.

By C. H. AARON, METALLURGIST,

AUTHOR OF

"TESTING AND WORKING SILVER ORES," "LEACHING GOLD AND SILVER ORE-

PART 1.



PROPRIETORS MINING AND SCIENTIFIC PRESS, SAN PRANCISCO, CAL., 1884. [Co. yrighted.]

MISS EUGENIA SCHENK

The Mining and Scientific Press.

OF

SAN FRANCISCO, CAL.,

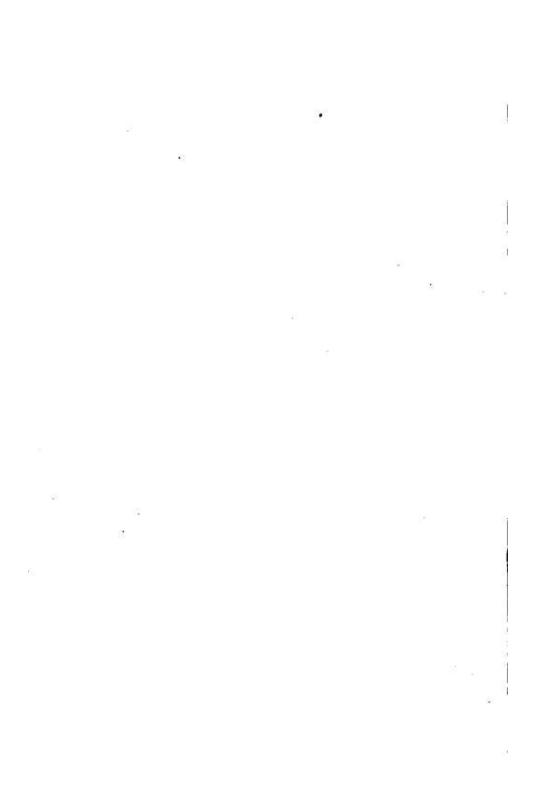
THIS BOOK IS RESPECTFULLY DEDICATED BY THE AUTHOR.

1 1 1 1 1

ξĠ. **X**

CONTENTS.

Preface	7
Introduction	9
Implements	12
Assay Balance	21
Materials	30
The Assay Office	36
Preparation of the Ore	38
Weighing the Charge	41
Mixing and Charging	42
Assay of Litharge	43
Systems of the Crucible Assay	44
Preliminary Assay	46
Dressing the Crucible Assays	48
Examples of Dressing	55
The Melting in Crucibles	58
Scorification	62
Cupellation	66
Weighing the Bead	71
Parting	74
Calculating the Assay	78
Assay of Ore Containing Coarse Metal	81
Assay of Roasted Ore for Solubility	84
To Assay a Cupel	84
Assay by Amalgamation	85
To Find the Value of a Specimen	86
Tests for Ores	90
A Few Special Minerals	95
Solubility of Metals	98
Substitutes and Expedients	100
Assay Tables 102, 104	106



PREFACE.

That faults will be found in this book is beyond a peradventure. I shall find some myself after the printer has immortalized them, and my friends (and enemies) will discover others. But what can be expected of so humble an individual, when a celebrated scientist gives the sanction of his illustrious name to such a statement as this, "by weighing in this manner, by difference, the errors arising from inequality in the equilibrium, or length of the arms, are eliminated."—Crookes' edition of Mitchell's Manual of Assaying, 1868. The italics are mine.

Inequality in equilibrium looks paradoxical, but letting that pass as a harmless error, if error it be, the statement that weighing by difference, in the manner directed, can eliminate an error caused by inequality in the length of the arms of a balance, is itself an error so gross as to suggest the idea that Professor Crookes' may not have given personal attention to the article on weighing in the work quoted.

The present work was written nearly two years ago, but other engagements prevented its publication at that