

**LIGHTNING
CONDUCTORS, THEIR
HISTORY, NATURE, AND
MODE OF APPLICATION**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649133925

Lightning conductors, their history, nature, and mode of application by Richard Anderson

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.

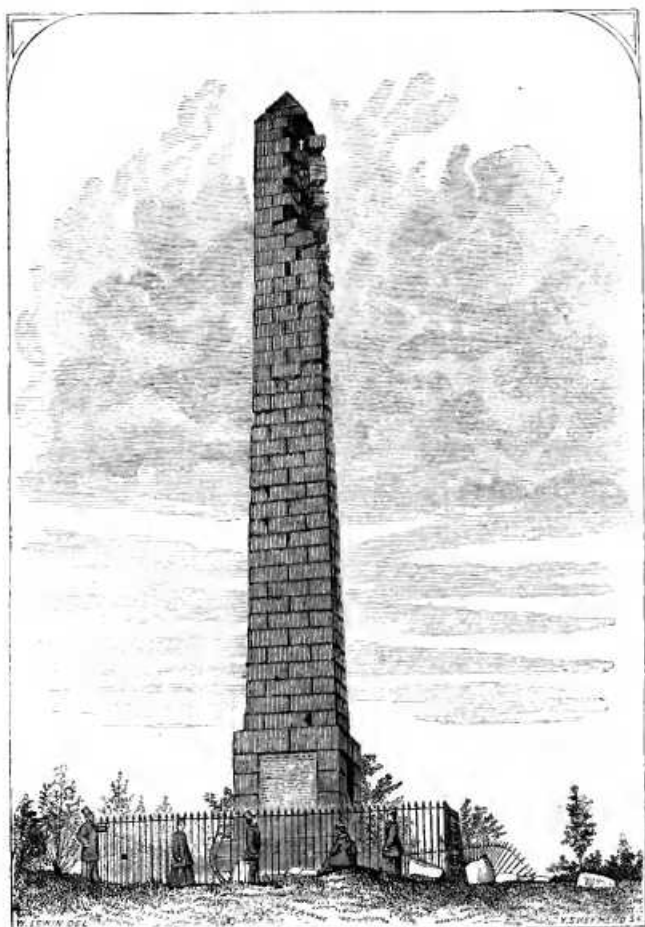
Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

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

RICHARD ANDERSON

**LIGHTNING
CONDUCTORS, THEIR
HISTORY, NATURE, AND
MODE OF APPLICATION**



MONUMENT TO GENERAL BAIRD ON THE SUMMIT OF TOMACHAISTLE NEAR CRIEFF
PERTHSHIRE, STRUCK BY LIGHTNING, MAY 28, 1878

Physics.
Elect.

LIGHTNING CONDUCTORS

THEIR

HISTORY, NATURE, AND MODE OF APPLICATION

BY

RICHARD ANDERSON, F.C.S. F.G.S.

MEMBER OF THE SOCIETY OF TELEGRAPH ENGINEERS
ASSOC. INST. C. E.

WITH NUMEROUS ILLUSTRATIONS

LONDON

E. & F. N. SPON, 46 CHARING CROSS

NEW YORK

446 BROOME STREET

1880

96426
2/6/09



P R E F A C E.

THE WANT in England of a good practical work on Lightning Conductors, accessible to both the professional and non-professional reader, has long been a subject of remark. That there are English works bearing more or less on Lightning Protection will be seen at once on reference to the Bibliography contained in the Appendix, pp. 231-248. But it will be found these books are either obsolete and out of print, or are written in a purely popular style that conveys little or no 'usable' information whereby may be obtained a trustworthy account of the growth and application of the LIGHTNING CONDUCTOR.

It is with a view of meeting this need that the present work has been written. It contains not only a history of the various methods that have been used to this end, but also a thoroughly practical exposition of the systems employed by the best authorities in various countries.

To Architects, Clergymen, Municipal Officials, and all those in charge of large and lofty buildings, it would be impossible to over-estimate the importance of this subject. Year by year an enormous amount of property is destroyed merely because the simplest precautions have not been taken to guard churches and other large buildings from the effects of thunder storms.

The Author of this work can at all events claim a large practical acquaintance with its subject. He feels convinced that those concerned in the preservation of buildings, whether they be houses, churches, or public offices, need only to learn the simple methods that can be used to render the action of lightning innocuous, in order to adopt them.

R. A.

NEW MALDEN, SURREY :

October 1870.

CONTENTS.

CHAPTER	PAGE
LIST OF BOOKS REFERRED TO, OR CONSULTED, RELATING TO LIGHTNING CONDUCTORS	XI
I. ELECTRICITY AND LIGHTNING	1
II. DISCOVERY OF THE LIGHTNING CONDUCTOR	17
III. EARLY EXPERIMENTS WITH LIGHTNING CONDUCTORS	25
IV. GRADUAL SPREAD OF LIGHTNING CONDUCTORS IN EUROPE	34
V. METALS AS CONDUCTORS OF ELECTRICITY	49
VI. CHARACTER OF LIGHTNING AND OF THUNDERSTORMS	62
VII. INQUIRIES INTO LIGHTNING PROTECTION	73
VIII. SIR WILLIAM SNOW HARRIS	85
IX. THE BEST MATERIAL FOR CONDUCTORS	100
X. HOTEL DE VILLE, BRUSSELS, AND WESTMINSTER PALACE	111
XI. WEATHERCOCKS	121
XII. LIGHTNING PROTECTION IN FRANCE AND AMERICA	125
XIII. NEWALL'S SYSTEM OF PROTECTING BUILDINGS	140
XIV. ACCIDENTS AND FATALITIES FROM LIGHTNING	169
XV. THE EARTH CONNECTION	198
XVI. INSPECTION OF LIGHTNING CONDUCTORS	218
APPENDIX	231
INDEX	249

