# A COURSE OF PRACTICAL INSTRUCTION IN BOTANY, PART I

Published @ 2017 Trieste Publishing Pty Ltd

#### ISBN 9780649066339

A Course of Practical Instruction in Botany, Part I by F. O. Bower & Sydney H. Vines & W. T. Thiselton Dyer

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

## A COURSE OF PRACTICAL INSTRUCTION IN BOTANY, PART I





#### A COURSE OF PRACTICAL INSTRUCTION

IN

BOTANY.



(0)

#### COURSE OF PRACTICAL INSTRUCTION

IN

### BOTANY

BT

F. O. BOWER, M.A., F.L.S.,

LECTURES ON BOTANY AT THE NORMAL SCHOOL OF SCIENCE, SOUTH REMEINGTON;

AND

SYDNEY H. VINES, M.A., D.Sc., F.L.S.,

PELLOW AND LECTURES OF CHRIST'S COLLEGE, CAMERIDGE, AND READER IN BOTANY IN THE UNIVERSELY.

WITH A PREFACE BY

W. T. THISELTON DYER, M.A., C.M.G., F.R.S., F.L.S.,
ASSISTANT-DIRECTOR OF THE ROYAL GARDENS, REW.

PART I.

PHANEROGAMA-PTERIDOPHYTA.

Yondon: MACMILLAN AND CO. 1885.

The Right of Translation and Reproduction is Reserved.

AK45 BLS V. I BIOLOGY LIBRARY

RICHARD CLAY AND BODS,
PRINTERS,
READ STARTS HITS, LONDON, E.C.,
and of Starts, Auftel.

IN MEMORIAN
Richard M. Holman

.

#### PREFACE.

A FEW words may be said to explain the origin of the work of which the present portion is a first instalment. In 1873 I was invited by the Science and Art Department to conduct a course of instruction in what is now the Normal School of Science at South Kensington. It was a condition of the undertaking that the instruction should be carried on continuously from day to day and throughout the working hours of each day. My friend Mr. Lawson, late Professor of Botany at Oxford, was so good as to give me his assistance. We had the use of Professor Huxley's convenient and well-appointed laboratory, and we determined to attempt a course of instruction which should embrace the leading morphological facts of every important type in the vegetable kingdom. We, in fact, resolved to adopt exactly the same plan of work as Professor Huxley in his own teaching had found convenient for the animal side of morphology.

At this time, as far as I am aware, no previous attempt had been made in this country to give an extended course of botanical instruction of this kind. Professor Lawson and myself found our own difficulties scarcely less considerable than those of the students. The interest, however, which the novelty of the new method of work excited in the class soon became very obvious. The enthusiasm of the more skilful students at once stimulated and assisted us, and at the conclusion of the course we found that there was scarcely anything of importance in the rather comprehensive range which had been attempted which the students had not been able to study, examine, and draw for themselves.

This course was an experiment. It was repeated at irregular intervals during the next few years. It gradually took a more systematic shape, and with the appointment of Mr. Bower as Lecturer on Botany in the Normal School, it is likely, I think, to settle down into a permanent system of instruction.

I had always hoped to put together the results of the experience in teaching methods acquired at South Kensington in the form of a handbook, which should save teachers who wished to follow our example from much of the trouble and difficulty which I, and those who, at different times, have taught in this way, have had to face. But, in the meanwhile, I had been drawn off to administrative duties which have left a steadily diminishing leisure for purely scientific work. Fortunately, my friend Mr. Bower was willing—and with far greater competence—to take up the task which I was unable to perform, and to him are entirely due the