

**A COURSE OF PRACTICAL
INSTRUCTION IN BOTANY.
PART I. PHANEROGAMÆ -
PTERIDOPHYTA**

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

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F. O. BOWER & SYDNEY H. VINES & W. T. THISELTON DYER

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A
COURSE OF PRACTICAL INSTRUCTION
IN
BOTANY

*revised &
1885*

BY

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

LECTURER ON BOTANY AT THE NORMAL SCHOOL OF SCIENCE, SOUTH KENSINGTON;

AND

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

FELLOW AND LECTURER OF CHRIST'S COLLEGE, CAMBRIDGE,
AND READER IN BOTANY IN THE UNIVERSITY.

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, KEW.

PART I.

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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

laboratory instructions for studying the different types selected. Dr. Vines has very kindly supplied the chapters on methods and on the morphology of the cells. But besides this he has at every step given the assistance of his own extensive experience in practical teaching.

It had been our intention to preface the directions for the study of each type with a short account, in language fairly intelligible to the general reader, of its salient morphological facts. This would have represented the brief lecture with which the work of each day began in the course as originally organised. To carry out this intention would have postponed the publication of the teaching directions already prepared by Mr. Bower, and, in justice to him, it has seemed the best course to issue what is already finished without delay. It is intended to follow the present part with another, which will comprise the remaining types of the vegetable kingdom. Should the book be found as useful to students as it is hoped may be the case, I look forward to seeing the original scheme upon which it was planned still carried out in a future edition.

W. T. THISELTON DYER.

ROYAL GARDENS, KEW,
December 1884.

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