

PREFACE.

The object of this little book is to supply students of botany with detailed and explicit directions in preparing permanent mounts of all plant structures. The writer has tried to make all the instructions so full and exact that a student will be able to avoid the numerous mistakes which it is so easy to make in this work.

While the principal methods are those which are in common use in practical plant histology, many of the details are entirely new and are the results of the writer's experiments during the past few years. Microtechnique is becoming ever more and more important in botany, the old days of the hand-lens as the botanist's sole optical instrument are gone forever, and the use of the compound microscope has become general. Now that ecology has taken its proper place as one of the main divisions of botany, a new field in histological research is opened up, that of the influence of environment upon plant tissue, and in this field a knowledge of microtechnique is essential.

Besides being a necessary factor in botanical research, microtechnique is of great educational value as a training in attention to details. Without the most scrupulous attention to each detail of the work success is impossible, and accuracy, neatness and perseverance are the price of a perfect mount.

No directions are given here on the use of the microscope, as no student will start microtechnique until he has had at least a year's work with this instrument.

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