THE AMATEUR MICROSCOPIST : OR, VIEWS OF THE MICROSCOPIC WORLD. A HANDBOOK OF MICROSCOPIC MANIPULATION AND MICROSCOPIC OBJECTS; PP. 1-141

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JOHN BROCKLESBY

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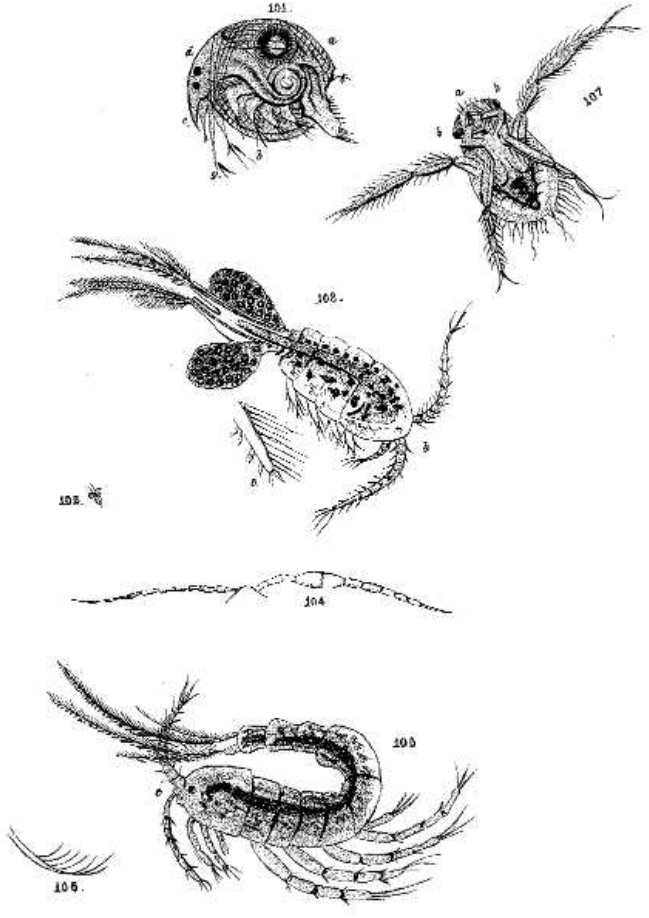
PLATE I.



THE

AMATEUR MICROSCOPIST:

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Views of the Microscopic World.

A HANDBOOK OF

MICROSCOPIC MANIPULATION AND MICROSCOPIC OBJECTS.

BY JOHN BROCKLESBY, A.M.,

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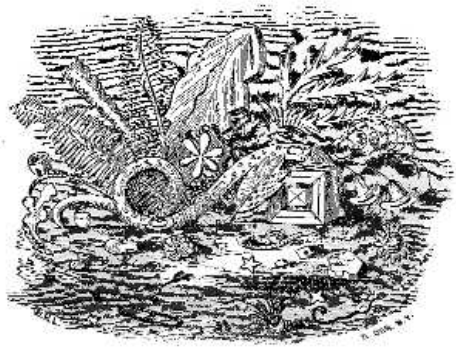

ILLUSTRATED WITH 247 FIGURES ON WOOD AND STONE.

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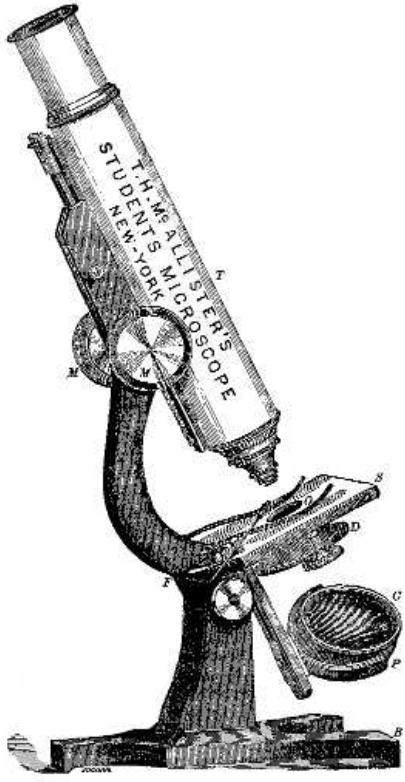
T.H.McALLISTER'S
STUDENTS MICROSCOPE
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PREFACE.

I HAVE been led to believe that a popular work on the microscope and its revelations would at once be interesting and useful, and this belief has resulted in the present treatise, which simply exhibits and describes some of the most rare and curious objects of the microscopic world, and the modes of preparing them for observation under the microscope; together with a short account of this instrument.

In the preparation of this volume liberal use has been made of the discoveries of the distinguished Ehrenberg, and I have also drawn copiously from the writings of Grew, Adams, Pritchard, Mantell, Carpenter, Quekett, Hogg, Beale, and others; and from these the greater part of the illustrations have also been obtained. Without specifying other portions of the book, the chapter on crystallizations (except the remarks upon snow) is the result of my own observations, and the drawings it contains are the representations of actual crystallizations, seen and drawn by the artist. Besides these delineations many other original drawings and cuts are scattered throughout the work.

A knowledge of the wondrous revelations of the microscope cannot but be interesting; yet I trust that the perusal of this little volume may subserve a higher purpose than to while away an idle hour: that it will enkindle in the reader a desire to use this noble instrument, and by its aid to explore for himself the hidden realms of Nature. A few years ago the microscope was simply regarded as a costly toy, but now its value is appreciated in almost every department of physical science. The information it affords the physician in reference to the tissues of the human body, the nature of diseases, and the constitution of the blood, is beyond all price.

The microscope detects the "ingredients invisible to the naked eye, whether precipitated in atoms or aggregated in crystals, which adulterate our food, drink, and medicines, and reveals the lurking poison in the minute crystals which its solution precipitates."

In the department of vegetable physiology it enables the observer to study the incipient forms of vegetable life, and the structure of the most delicate tissues. To the geologist and zoologist it is indispensable, for without it they could not read the records of the rocks, and would know comparatively nothing of that luxuriant vegetation which once abounded on the globe, nor of those minute animal organisms whose remains are now entombed in the limestone strata and ranges of the earth.

Moreover, in the world revealed by the microscope we trace the workings of Infinite Benevolence, as visibly impressed on minute forms and organizations as in the starry vault emblazoned upon its rolling worlds. Here we learn with new force the harmony of Nature with Revelation, and how true it is, "that a sparrow shall not fall to the ground without our Father."

HARTFORD, CT., August 5, 1871.