

garment of green and peoples the world with objects, moved by a power within, that power which we call life, that mystery before which the keenest intellects bow— science can explain no farther.

In searching the records of the past as they are revealed in the rocks upon which time has written the history of the world, the microscope has lent a helping hand. Rocks, which looked but a shapeless mass, under its penetrating gaze have been shown to be made up of countless animals and plants, that lived and died ages ago, but have left their skeletons to prove that they once existed. In reading geological books we cannot help but be impressed with the fact of how important an agency these organisms had in the formation of the rock stratos, not through their size but through the multitude of numbers. Fossilized wood, and fragments of bone, teeth, and hair have yielded the structure and classification of the plants and animals to which they belonged, to the microscope, so that scientists can arrange the plants and animals of bygone ages almost as accurately as they can those of the present.

In the science of Chemistry the microscope has not been without its uses. In spectrum analysis it has recently achieved remarkable results in the detection of metals, that, owing to the small quantity present, could not possibly have been detected without its aid. In defining the shape of crystals it has also opened an interesting line of study for the chemist. In recently examining a work on this subject no less than ninety-one different salts were noticed that had interesting crystals, which reveal their true shape under varying conditions only to the microscopist. These are crystals of comparatively common occurrence, and are but a mere fraction of those that come under the eye of the investigating chemist.

In the few sciences thus reviewed what a vast field we find for instructive research, and how broad a field for intellectual development and scientific thought. From the contemplation of books, to contemplate nature herself, as she is revealed under the microscope, cannot help but impress vividly upon our minds the lesson learnt, to make us take a keener interest in the study of those objects in nature, that at once fill us with wonder and admiration, and to excite in us a curiosity and insatiable desire to know more about them.

While, however, the mind is elevated and

expanded, microscopic work is no drudgery, it is accompanied by a fascination that leads the mind to forget itself and is in the highest sense entertaining and recreative. When time hangs heavy on the hands, the mind, for want of food, is preying upon itself, and seems dissatisfied with all its surroundings. What better relief than to get more intimate with nature, by searching her treasures as seen under the microscope. A leaf with its stomata, cells, and their contents, starch, crystals, &c., are a revelation that lead us to exclaim, how wonderful the simple things in nature! The examination of the hairs from the filament of a tradescantia flower reveals one of the greatest sights a person could look upon, to see the protoplasm moving backwards and forwards, apparently never at rest, is something never to be forgotten.

Only a few objects easy to procure and easy to examine have been mentioned in this paper, but microscopic organisms, both animal and plant, offer a boundless field for exploration to those who wish to investigate along this line. The principal thing is to make a start, and once interested in the subject something new to observe will never be wanting. The pleasure of a walk or a days sport is greatly enhanced by gathering objects for after study; every new insect or plant seen, the teeming life from a stagnant pool, or swamp, and even stones may be added to the collection, they all contain a wealth of thoughtful investigation, and the enjoyment of the day's outing is doubled by the after examination of the objects gathered.

Again by looking for such objects our powers of observation are sharpened. By training the eye to see, and the mind to appreciate the varying objects that are ever crossing our path, develops in us a habit which not only helps us to see in nature, objects never observed before, but will aid us materially in dealing with our fellow man, and add not a little to our success in life. The same habit of close observation enables us to see new sights and new beauties in everything around us and thus increases the pleasure of life. The contemplation of such objects, in their beauty and mysteriousness increases our reverence for Him who fashioned those things for his pleasure, and leads us to mould our lives according to the harmony, beauty and perfection that He has displayed in all His works.