

In his new volume on "The Power of Movement in Plants" (John Murray), Mr. Darwin, with the assistance of his son, Mr. Francis Darwin, has added yet another to the long list of works in which the theories of nature for ever associated with his name are further exemplified and traced through novel and interesting developments. In a previous work he has explained and illustrated by abundant records of his experiments and observations, the movements and habits of climbing plants. The object of the present treatise is more particularly to describe and connect together several large classes of movements common to all plants. The most widely prevalent movement, Mr. Darwin tells us, is essentially of the same nature as that of the stem of a climbing plant, and this movement he calls circum-mutation. Until recently, all bending movements in plants were believed to be due to the increased growth of the sides, which becomes for the time convex. It is the object of this book to show that apparently every growing part of every plant is, from a different principle, continually circummutating, though often on a small scale—even the stems of seedlings, before they have broken through the ground, being as far as the pressure of the surrounding earth permits, subject to this law. How we find in this ever present movement the basis or groundwork for assuming, according to the requirements of the plant, the most diversified movements; and how the bold sweep made by the stems of climbing plants and by the tendrils of other climbers, result from a mere increase in the amplitude of these ordinary movements; and how even the position which young leaves and other organs ultimately assume are all referable to this principle, together with numberless other interesting phenomena is here explained step by step, with the same evidences of laborious induction of facts which characterise the preceding writings of its distinguished author. It will disappoint the ardent student perhaps to learn that beyond the law and the operation of the law, science is still dumb. Why every part of a plant while it is growing, and even in some cases after its growth has ceased, should go through the curiously regular process of swelling and extension—first on one side, then on the other, is not known, though Mr. Darwin observes it would appear as if the changes in the cells require periods of rest.