PLANT SCIENCES IN THE SHEFFIELD SCIENTIFIC SCHOOL

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As a noted English scientist, Sir Walter Fletcher, has said recently, "In the field of research the whole body of knowledge has been advancing so fast that the individual workers, at their various points on its growing borders, are in danger of becoming so far separated one from another in the very course of their advance as to lose the fertility that comes from the easy exchange of ideas and methods." Hence, the value of such gatherings as this, by which workers in specialized fields can compare methods and results, gain perhaps added enthusiasm and encouragement, and go forth with renewed vigor in the prosecution of their own particular studies.

As a physiological chemist I like to think in broad terms of physiology as a study of the functions of living organisms, animal and vegetable; a study of the functions of living matter irrespective of its origin. Differentiation of these functions, as we all know, is determined largely by the character of the methods that have to be followed in their study. Thus, we emphasize chemical physiology and physical physiology mainly because the functions concerned are explainable by chemical laws or by physical laws, their study involving on the one hand the intricate methods of the chemist, while on the other the methods of the physicist are called for. Again, we stress the terms animal and plant physiology, recognizing thereby the innate differences in function characteristic of the two forms of life, understanding full well that in the higher forms individual functions can be studied successfully only by different technical methods applicable to each type. If we talk about physiological chemistry or biochemistry we are giving expression to the fact that owing to deepening knowl-
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