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SOME CHEMICAL ASPECTS OF LIFE¹

By Sir FREDERICK GOWLAND HOPKINS

PRESIDENT OF THE ROYAL SOCIETY AND SIR WILLIAM DUNN PROFESSOR OF BIOCHEMISTRY,
UNIVERSITY OF CAMBRIDGE

I

THE British Association returns to Leicester with assurance of a welcome as warm as that received twenty-six years ago, and of hospitality as generous. The renewed invitation and the ready acceptance speak of mutual appreciation born of the earlier experience. Hosts and guests have to-day reasons for mutual congratulations. The association on its second visit finds Leicester altered in important ways. It comes now to a city duly chartered and the seat of a bishopric. It finds there a center of learning, many fine buildings which did not exist on the occasion of the first visit and many other evidences of civic enterprise. The citizens of Leicester, on the other hand, will know that since they last entertained it the association has celebrated its centenary, has four times visited distant parts of the Empire and has main-

tained unabated through the years its useful and important activities.

In 1907 the occupant of the presidential chair was, as you know, Sir David Gill, the eminent astronomer who, unhappily, like many who listened to his address, is with us no more. Sir David dealt in that address with aspects of science characterized by the use of very exact measurement. The exactitude which he prized and praised has since been developed by modern physics and is now so great that its methods have real esthetic beauty. In contrast I have to deal with a branch of experimental science which, because it is concerned with living organisms, is in respect of measurement on a different plane. Of the very essence of biological systems is an ineludable complexity, and exact measurement calls for conditions here unattainable. Many may think, indeed, though I am not claiming it here, that in studying life we soon meet with aspects which are non-metrical. I would

¹ The presidential address before the British Association for the Advancement of Science, Leicester, September 6.

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