

their methods. Dr. Harris evokes the same interest in the description of each vitamin—where it occurs, the effects of deficiency in animals and in man, its chemistry and mode of action. By ingenious tables and figures, of which there are more than a hundred of each, essential points are frequently summarized and clarified throughout the book, so that, in spite of its easy readability, the student using it as a textbook will find it admirably suited to his needs. The final section of the book has useful and important things to say on dietetics—the application of nutritional science to the feeding of man. Here are discussed questions of food choice and instinct, the effect of war and rationing, ideal diets and common food faults.

While there is no doubt that this is by far the best book, at a fairly elementary level, which has been produced on the subject of the vitamins, one must reluctantly say that even so it is not the ideal book. One would have liked to see a rather more ruthless pruning of some of the older material and its substitution by newer information. The book abounds in examples of how Dr. Harris, better than so many other writers, could have achieved this. While most of us still remember that the Dutch East Indies are now Indonesia, how many remember which country was once Bosnia? Is it not now accepted that “a scaly follicular eruption” of the skin is by no means a “fairly clear symptom of vitamin A deficiency”? Anti-vitamin K has not merely a *possible* use in medicine—it is, in fact, used extensively. It is misleading to say that riboflavin deficiency is “uncommon in most regions of the globe”. It is a pity, too, that reference has not been made to the Bataan experiment, where beriberi has been almost completely eradicated by the enrichment of rice, nor to the claims—mostly unfounded, it is true—of the therapeutic uses of vitamin E. Apparatus described for measuring dark adaptation has long been recognized as unsatisfactory.

However, let it be said once again that these small criticisms still leave this book easily the best to recommend, not only for students of nutrition but also for anyone who is interested in a subject about which there is so much misinformation. It is well produced, a pleasure to handle and a joy to read.

JOHN YUDKIN

LIBERTY IN THE MODERN WORLD

The Spirit of Liberty

Papers and Addresses of Learned Hand. Collected, and with an Introduction and Notes, by Irving Dilliard. Pp. xxx + 285. (London: Hamish Hamilton, Ltd., 1954.) 21s. net.

THE papers and addresses collected in this book range for the most part over fields with which the man of science is concerned rather as citizen than as scientist. Even here, they could help to correct the immaturity and lack of education, to the dangers of which Conway Zirkle directed attention in a forceful address last December to the American Association for the Advancement of Science. The book takes its title from the brief address which Judge Learned Hand gave in May 1944, and the main interest of the book to the scientist lies in the interpretation of liberty and its significance in the world to-day, given by a cultured legal mind. In addresses on sources

of tolerance, on liberty, on the contribution of an independent judiciary and on the debt of the world to Greece, and in the plea for the open mind and free discussion which he made as recently as October 1952, there is clear appreciation of the conditions of scientific advance or any other form of intellectual activity, of the responsibilities which the creative worker must recognize and penetrating analysis of what is involved in living together in an ordered society. Here are displayed no ready-made solutions but the ripe wisdom of a cultured mind, rich in inspiration, and confident of its exposure of humbug and pretence.

“Liberty,” the author writes, “is an essence so volatile that it will escape any vial however corked. It rests in the hearts of men, in the belief that knowledge is hard to get, that man must break through again and again the thin crust on which he walks, that the certainties of to-day may become the superstitions of to-morrow; that we have no warrant of assurance save by everlasting readiness to test and test again.” Elsewhere in the book he writes of the function of the scholar in a democratic State and the influence of his detachment in assuaging the faction which, admitting no mediation and demanding the extinction of all opposition, would convert the State into an autocracy “except in so far as the state is made up of those, to some degree practised in the habit of suspended judgment, and possessing a spirit capable of disinterested scrutiny”. Nor does he incite the scholar or scientist to rash political action. “You cannot raise the standard against oppression, or leap into the breach to relieve injustice, and still keep an open mind to every disconcerting fact, or an open mind to the cold voice of doubt.” The scholar must be content to be himself, confident that, if faithful in that, his light will shine, steady and far. Judge Hand believes in the spirit of moderation and toleration, that the scholar, whether scientist or other, brings his contribution by pursuing his inquiry where it leads him, by just ‘monkeying around’, by continually thinking out afresh the concepts of ‘liberty’ and ‘independence’ and the like in the context of to-day, and refusing to accept false values in their place, by maintaining wide horizons and a suspended judgment in the times of stress when men are most prone to reject them.

Supremely the book testifies to the truth of Judge Hand’s contention that there is no substitute for an open mind enriched by reading and the arts, and that the scientific worker who would influence the thought and action of his time must have some acquaintance, the wider the better, with what others have thought and felt in circumstances as near as possible to those of the groups in question. Here is the fundamental reason why an education which includes the humanities is essential to correct the political immaturity of the scientist. “Just as in science we cannot advance except as we take over what we inherit, so in statecraft, no generation can safely start at scratch. . . . The imagination can be purged and the judgment ripened only by an awareness of the slow, hesitant, wayward course of human life, its failures, its successes, but its indomitable will to endure.” The plea for the open mind and free discussion in which these words occur is much more than championship of dissent and a direct rebuke to the excesses of McCarthyism and secrecy and security procedures: it is an outstanding statement of the case for general education as the basis of a free society.

R. BRIGHTMAN