BIOLOGY AND THE TRAINING OF THE CITIZEN

I propose in this address to depart somewhat from precedent and to devote it neither to a general review of recent progress in our science, nor to the exposition of my own special views on problems of evolutionary morphology, but rather to a more general subject—one which I believe to be at the present time of transcendent importance to the future not merely of our nation but, indeed, of our civilization—namely, the relation of biology to the training of the future citizen. Speaking as I do from this chair, I need hardly say that by biology I mean more especially animal biology.

It is unnecessary to emphasize at length the enormously important part which biological science plays in the life of our modern civilized state. The provision of food for the community—crop-raising, stock-breeding, the production of dairy products, fisheries, the preservation of food by canning and freezing, and so on—is obviously an immensely complicated system of applications of biological science. And so also with the maintenance of the health of the community—the prevention of disease, much of which is now known to be due to the machinations of parasitic microbes, often transported and spread by other living organisms, and the cure of disease by the modern developments of medicine and surgery—these again are applications of biological science. When we contemplate merely such simple facts known to every one, when we see to what an extent the results of biological science are woven in and out through the whole complicated fabric of modern civilization, when we contemplate further the gigantic expenditure in money devoted to the school training of our future citizens, it must surely strike us as an extraordinary fact that biological science enters hardly, if at all, into the school training of our average citizen.

What I have said indeed applies, if only in lesser degree, to the subordinate position occupied by science as a whole in our school training. In the early stages of human evolution, as we see illustrated on the earth of to-day by those comparatively primitive savages who still remain in the nomadic hunting phase, what we should now call science plays an all-important part in the education of the young indi-

1 Address by the president of Section D—Zoology—of the British Association for the Advancement of Science, at Oxford, England, August, 1926.