

EDUCATION AND NATIONAL LIFE.<sup>1</sup>

ONE of the rare and valuable fruits of the sanguinary struggle in which the civilised nations of the world have been engaged since the summer of 1914 is to be found in the awakening of the public mind, at least in this country, to the consideration of the causes which provoked it, and in the disposition to search out the remedies which in the future will make such convulsions impossible of occurrence.

The grave events which still await a satisfactory solution have moved to serious reflection the leaders of the national Church, who two years ago, when the issue of the struggle hung perilously in the balance, felt called upon to ascertain the causes which lay at the root of the great upheaval of civilised humanity and to suggest the remedies. Five influential committees, under the direction of the Archbishops, were appointed to consider the subjects of the teaching office, the worship, the evangelistic work, and the administrative reform of the Church, and, finally, the question of Christianity and industrial problems, in which was included the place and functions of education, with which we are chiefly concerned.

Having regard to the history of educational enterprise in this country, the results of the labours of the twenty-seven able and influential men and women who constituted the last-named committee, with the Bishop of Winchester (Dr. Talbot) as chairman, assisted by the Bishops of Oxford, Peterborough, and Lichfield, together with the Master of Balliol, can only be characterised as revolutionary, so striking is the breadth of view they exhibit, and so complete the admission that education is meant for all the children of the nation without exception of class or condition. Education is "to assist human beings to become themselves . . . is the witness of equality . . . the foundation of democracy . . . and is, in short, the organised aid to the development of human beings in a society." This is the keynote of the admirable report issued by the committee on December 19, 1918, with its well-grounded and clearly stated argument and the fruitful suggestions it offers for the radical reform of our educational methods, incidences, and aims. "There must be," it states, "diversity of educational methods, because there are diversities of gifts. The basis of differentiation should be differences of taste or of capacity, not differences of class or of income. The manual worker needs a liberal education for the same reason as the barrister or the doctor: that he may develop his faculties and play a reasonable part in the affairs of the community." The basis of such an education, it strongly pleads, must be laid in the elementary school, from which all attempts at specialisation should be rigorously excluded, and it further contends that the only sound foundation for technical training is to be found in "the cultivation of mental alertness, judgment, and a sense of responsibility by means of an education of a general and non-utilitarian character."

The report laments the causes which have done so much to hinder the development and diffusion of education during the great industrial epoch, with its materialistic aims and subordination of human faculties to the exigencies, or alleged exigencies, of industry, and among them does not fail to cite the strife and lack of accord of the various religious bodies. It looks to an education, wisely conceived and universally applied, for the effective solution of domestic and international problems by peaceful means. The committee cordially welcomes the provisions of the Educa-

tion Act of 1918, especially those which are concerned with the physical welfare of children and young persons, and would make mandatory the supply of nursery schools by the local education authorities. It looks forward to the time when the compulsory school-age will be raised to fifteen, and even to sixteen, but recognises that this cannot be expected until the rewards of industry are more equitably distributed and the great working class placed in a position of less anxiety and with the means to enable it to realise a healthy and vigorous life. Fuller opportunities, it is urged, should be provided for the higher education of specially capable children, and the educational system so organised as to raise to a higher level the moral and intellectual standard of the whole people.

Much stress is laid upon the necessity for the better payment of teachers and for more consideration for their status, having regard to their important services to the State. The report strongly approves the proposals contained in the Act for the establishment of compulsory continued education of young persons up to eighteen engaged in employment, but would extend it from eight hours per week to twenty-four out of a working week of forty-eight, or for a corresponding proportion of the month or year according to the special necessities of the case. The main aim of such education should be to develop the physical and mental capacities of the children and to strengthen their character. Even in the continuation schools it is thought desirable that a vocational bias should be given only in the later years of school attendance. It is noted that there is a wide and increasing demand for education of a non-vocational character among adult men and women which should, it is considered, be encouraged in every way possible, and that such opportunities of education should form part of the normal provision of the community.

The report, which is signed by all the members of the committee, quotes with approval Milton's definition of education as "that which fits a man to perform, justly, skilfully, and magnanimously, all the offices, both private and public, of peace and war," but contemplates a much wider application of it, in that all men and women must be included within its scope according to their capacities and powers. A useful bibliography accompanies the report.

SEA-STUDIES.<sup>1</sup>

OF the four papers contained in the part of the Bergen Museum Year-book before us, the one of greatest scientific and practical importance is perhaps that by Mr. Torbjørn Gaarder entitled "Die Hydroxylzahl des Meerswassers." The extent of the concentration of hydroxyl ions in sea-water has a great influence on the physiological processes of marine organisms; as Loeb and Herbst have shown, a certain concentration is necessary for the development of echinoderm ova, whether fertilised or not. In a word, the productivity of a sea region depends largely on the concentration of the hydroxyl ions. It becomes, therefore, of importance to study the variations of sea-water in this respect, and to discover the factors on which they depend.

Mr. Gaarder discusses the various methods used for estimating this concentration, which he calls the hydroxyl-number, and enumerates the radicals normally present in sea-water which may affect it. Of these the most important is carbonic acid, which serves as a buffer against the factors that change the hydroxyl-

<sup>1</sup> "Christianity and Industrial Problems." (London: S.P.C.K., 1918. Price 1s. net.)

<sup>1</sup> "Bergens Museums Aarbok, 1916-17." Naturvidenskabelig Raekke 1 Hefte. (Kristiania, 1917.)