

decomposed granite: solid granite is reached at a depth of 20 ft. These features, together with a light intermittent rainfall, help to account for the small yield of the reservoir, ranging as it does from a few hundred million to a little more than 20,000,000,000 gallons per annum—not more than about  $7\frac{1}{2}$  per cent. of the rainfall. The consumption of water in the districts supplied has increased from an average of 600,000 gallons per day in 1903 to about 2,000,000 gallons per day at the present time.

The success of the measures in course of adoption for the treatment of this grave difficulty of water-supply in Australia will be followed with interest, not merely by engineers and geologists, but by all who have at heart the development of the Empire, and its widespread capabilities for usefulness to mankind.

BRYSSON CUNNINGHAM.

THE REPORT OF THE BOARD OF EDUCATION, 1915-16.

THE report of the Board of Education for the year 1915-16 is a document to which, in the present state of public expectation, more than usual interest will be attached. It is naturally concerned in large measure with the work and problems of elementary education, upon which by far the larger proportion of the public funds are, by the very circumstances of the case, expended. But it is now fairly generally admitted that we cannot have a sound solution of the problems of education, or raise an educational edifice worthy of the name, or secure the right type of educated electorate, or place education upon its highest plane, unless we make much more adequate provision for the training of the great mass of the people.

A grave responsibility now rests upon the nation, in view of the devastating effects of the war, to provide with the utmost fullness possible for all its children the means of physical, mental, and moral health, and especially to secure ample educational opportunities for the worthy, no matter of what class. The claims of the war during the year under review upon the schools, upon the teaching staffs, even upon the pupils themselves in response to industrial and agricultural demands, have increased in intensity and with unfortunate results, since many school buildings have been closed either for the billeting of troops or for use as hospitals; the male teaching staffs have been seriously depleted; the classes have necessarily been enlarged, to the grave disadvantage of the pupils; and in many other ways the work of education has been impeded. There has been a serious decrease compared with 1915 of nearly 26,000 pupils of twelve years of age and upwards in the public elementary schools, due to the large number who have passed into employment.

The question of the supply of male teachers has become grave, even apart from the exigencies of the war, due in large measure to the inadequate salaries paid and to the poor prospects offered. In the year 1916, on August 1, the number of boy entrants to the teaching profession in England and Wales was 1063, of girls 5228, or a total of 6291; but the real annual demand for entrants, even under normal conditions, is 9000, including men and women. Unless this grave deficiency can be met by satisfactory measures there can be neither any increase in the length of the school life nor reduction in the size of classes, and it will, moreover, gravely imperil the level of efficiency in the schools reached before the war. The number of men students in the training colleges has fallen from 4242 to about 1500, and nearly 4000 men have joined the Army direct from them. It is now proposed, in order to increase the supply of candidates, to modify the

requirements of the bursar system in the direction of the pupil-teacher methods of former days.

The work of the secondary schools, like that of the elementary schools, has suffered much by reason of the war. The number of schools now recognised as efficient by the Board is 1178, educating some 231,000 pupils, a vast advance upon days prior to 1902. Of this number about 9000 were displaced in 1916 by military or hospital occupation of school premises, and other provision far less adequate was made for them. The male staff of the secondary schools has also suffered much. Upwards of 2600 men have joined the Services since the beginning of the war up to October 31, 1916. Praiseworthy efforts have been made by the local education authorities and by the teachers of all grades to meet the untoward circumstances of the time, but, as may be expected with but partial success.

The attendance of students attached to technical schools, schools of art, and other schools and classes for further education has fallen considerably. Many of the schools have been engaged in munition work and in the training of munition workers. There was a serious diminution in 1916 in the evening and part-time schools, the number having fallen from 5413 to 3909, as compared with 1915. Much praise is given in the report to the initiative, adaptability, and public spirit of the universities and technical colleges in meeting so successfully the demands set up by the war.

The universities and colleges have continued to make contributions of the highest value to the national cause in the prosecution of abstruse and laborious researches into technical matters bearing upon the war, and especially in the enlightenment and information of public opinion. All this has been done without in the least ceasing to provide for the needs of those able to pursue the ordinary courses of study. The Government has been able materially to aid in this development by financial assistance of a special nature. It is noted in the report with much satisfaction that greatly increased interest has been displayed by almost all sections of the Press and of the public in the possibilities and problems of the universities, than which there can scarcely be a more hopeful sign. "It is being realised," to quote the words of the report, "more clearly day by day how much the welfare and progress of the nation depend upon a highly equipped, accessible, and well-organised system of university education. . . . The war has brought the professor and the manufacturer together, with results which neither is likely to forget." It has apparently taken a devastating war to bring about this consummation. Many important benefactions made to universities and colleges during 1916 in aid of their respective spheres of work are noted in the report.

THE CARNEGIE INSTITUTION AND SCIENTIFIC RESEARCH.

FROM the 1916 Year Book of the Carnegie Institution of Washington we learn that the following grants have been authorised by the Board of Trustees for the current year:—

	£
Administration . . . . .	10,000
Publication . . . . .	12,000
Division of Publications . . . . .	2,100
Departments of Research . . . . .	126,670
Minor Grants . . . . .	19,360
Index Medicus . . . . .	2,400
Insurance Fund . . . . .	5,000
Reserve Fund . . . . .	50,000

£227,530