equivalent to an average of 0·5 g.-c. per cm.^{2} per minute received at the outer surface of the atmosphere over the whole earth.

Out of the radiation received Abbott and Fowle consider that 37 per cent. is reflected, chiefly by the air and clouds, and to a small extent by the earth. The figures they give are that out of the whole radiation reaching the outer limit of the atmosphere 52 per cent. reaches the level of Mount Wilson and 24 per cent. the surface of the earth.

The experiments of Ångström were on what he calls the effective radiation of the earth—that is to say, the whole radiation from the surface less the back radiation from the air. The returned radiation from the air depends on the amount of water vapour present, and since this increases with increasing temperature, the effective radiation is found to increase slightly with decreasing temperature. Ångström also states that dry air will radiate with half the radiation of a black body.

The other articles are on the underground drainage of the upper part of the Dee Basin, by Dr. John Horn, and on the distribution of cloud and rain with reference to the centre of a cyclonic depression, by Sir Napier Shaw. The latter contains four very interesting illustrations showing the average distribution in four well-defined storms that passed over the British Isles at various dates The areas of rain and also of cloud lie on the whole in front of the centre, but have not any very definite shape. The author remarks that "even in well-marked depressions convection is a local phenomenon."

The usual meteorological tables for Scotland for 1915 complete the volume.

SCIENCE AND MODERN LANGUAGES IN CIVIL SERVICE EXAMINATIONS.

IT is a matter of common knowledge that the country is largely governed by men who enter the Civil Service as first-class clerks, since from these men the principal permanent officials are so frequently chosen. Attention has been directed to the fact that nearly all these positions are filled by persons whose main educational qualifications are a considerable knowledge of Latin and Greek.

In reply to this, the defenders of the system pointed out that in 1913 the first and third places in the examination were taken by students of science, and that in 1914 the second place was gained by a science man.

But these figures are most deceptive, as the following statistics will show. In 1913 sixteen vacancies were announced. Of the first sixteen candidates, twelve took Latin and Greek, and all of these Greek history and Roman history; only four took mathematics and science; only two took French—one evidently as a make-weight, since he did not get enough marks to enable him to count the subject; none took Italian or German. Of the two who took French, one secured 254 marks out of a total of 2320, and another no marks out of a total of 2344.

The men who gained the first sixteen places secured marks as follows:—

Greek	6,250
Latin	5,817
Greek history	3,580
Roman history	3,673
	19,320

Greek history and Roman history are counted in with Greek and Latin because, as can be seen by the papers, nearly all the questions can be answered by anyone who has made a careful study of Greek and Latin literature in which the history of the two nations is embedded.

The same sixteen candidates secured the following total marks for the subjects mentioned:—

Mathematics	6,707
Natural science	3,491
French	254
Italian	0
German	0
	10,452

In other words, mathematics and science and modern languages secured much less between them than classics.

In 1914 nine vacancies were announced; of the candidates who took the first nine places, seven took both Greek and Latin, and of those, six took both Greek and Roman history; only two took mathematics with some science, and only two took French; none took Italian or German. The two who took French scored for this language 417 marks out of a total of 3876 and 321 out of a total of 3094 respectively. The two who took science scored respectively 859 marks out of a total of 3528 and 561 out of a total of 3408.

The men who gained the first nine places secured marks as follows:—

Greek	3,453
Latin	4,528
Greek history	1,745
Roman history	1,834
	11,560

The same nine candidates secured the following total marks for the subjects mentioned:—

Mathematics	3,901
Natural science	1,401
French	738
Italian	0
German	0
	6,040

It will be seen that the candidate who studies anything but Latin or Greek has a comparatively small chance of success in the examination; the result is that the country is largely governed by persons who, for the most part, have little knowledge of, or sympathy with, scientific method, and who are frequently unwilling to accept scientific advice; many of the appalling mistakes made at the beginning of the war were due to this.

Another result of the present system of examination, which allots an altogether disproportionate number of marks to Latin and Greek as compared with science and modern languages, is that the higher posts in the Civil Service are practically closed to persons who have not been educated at either Oxford or Cambridge. In 1913 and 1914 forty first-class clerks were selected; of these, twenty-five came from Oxford; ten from Cambridge; one from the University of London; one from a Scotch university; two from Irish universities; *and none from all the provincial universities in England and Wales combined!*

Everyone would regret if the higher posts in the Civil Service were not recruited largely from Oxford and Cambridge; but it is ridiculous to suppose that all the provincial universities combined were incapable of producing, during the last two years before the war, a single person worthy thus to serve the State. Men from the modern universities have little chance of success, since the endowments for higher classical teaching are largely concentrated on the banks of the Isis and the Cam.

J. WERTHEIMER.