

"The existing doctorates of the home universities should, if possible, be maintained, and their present standard should not be lowered."

The words "if possible" in this resolution seem to give away the case, and justify the Senate in the action it has taken.

In the paragraph of the article immediately following that from which I have already quoted the writer destroys the argument as to the extreme importance of the establishment of the new degree. He says that "university professorships will be filled everywhere by men who have shown by their work and teaching that they are qualified and eager to advance knowledge in their respective subjects, and the abler students will go to the abler teachers. . . . Degrees have very little to do with the matter."

This is the heart of the matter, and is exactly what is implied in the second reason given by the Academic Council against the establishment of a new degree, namely, that "the abler students come to London on account of the facilities for study, and not primarily to get an English degree." If the writer of the article will read over again the documents in support of the *summary* of reasons given by the Academic Council for and against the establishment of the new degree, he will find in the report of the Imperial Studies Committee that emphasis is laid on "the opportunities of work under English scholars of international reputation." These opportunities are included in the facilities for study, which, in the opinion of the Academic Council, do not consist wholly of "museums, libraries, and laboratories."

It should be borne in mind that the conclusions of the Academic Council are in entire accordance with the opinion of the members of the Imperial Studies Committee, of which the chairman is Lord Bryce, and which includes many members who are not only acquainted with the academic point of view, but also able to bring to bear on this matter their varied experience of public affairs.

M. J. M. HILL.

University College, London, W.C.1, May 14.

HAVING already expressed my view in the article which is criticised by Prof. Hill, I can only add that America and Canada have asked for one thing, and the University of London, in response to their demand, has offered another. Which of the two parties is supported by the more cogent reasons for its action is a matter of opinion. Mine has been already sufficiently expressed, and I am supported by the belief that it is shared by others who are more intimate with the feelings and conditions which led to the original request from overseas.

W. A. T.

May 18.

#### Proposed Society of Science Students.

FOR some time past we have had in mind the desirability of the existence of a society of young scientific students for mutual help. There are no doubt many enthusiastic students of science who, like ourselves, have to rely chiefly on their own efforts for their progress in science, and we think that it would be of great advantage to them if they could co-operate in such matters as the purchase of apparatus, materials, and books, and combine for mutual help. There is no society which fully provides for these, and we have decided, after careful consideration, to endeavour to try to get into touch with some of this class of students through the columns of NATURE. Will those students who are interested in the subject please communicate with Mr. P. E. Owens, 28 Jesse Terrace, Castle Hill, Reading?

J. A. BUTLER.  
P. E. OWENS.

#### CLOUDS AT THE ROYAL ACADEMY.

THE smoke and haze which commonly obscure the sky in large cities, and the otherwise restricted outlook, allow the town dweller inadequate opportunities for the study of clouds, but to those who live in the country, and to the observant worker in a town when spending a holiday away from his native place, the ever-varying cloud effects form quite as attractive an object of interest as the countryside itself. This being so, it might be thought that in landscape scenes artists would devote at least as much attention to the sky and the clouds above as to the hills and valleys below. That this is not the case will be painfully evident to the meteorologist, or even to the ordinary intelligent observer of Nature who visits the Royal Academy and makes but a cursory examination of its walls. Let it be granted at once that there are notable exceptions, but the conclusion cannot be resisted that to many artists the clouds form a very subsidiary part of the picture, and are put in to produce what to the artist's eye is presumably a pleasing effect, but without the least regard to natural truth.

The majority of the clouds appearing in this year's exhibition belong to the strato-cumulus or fracto-cumulus type, though, as would be expected, the hard convection cumulus, the most striking of all clouds, is not neglected. Perhaps the most remarkable feature is the almost entire neglect of high clouds of the cirrus and cirro-cumulus types, which produce some of the most beautiful effects in Nature. Cirro-cumulus is shown in one or two sunset pictures, and a not entirely successful attempt has been made in one case to depict the sun shining feebly through an alto-stratus veil; but true cirrus is almost entirely unrepresented. In "The Passing of Autumn" (91) the meteorologist may think that he detects a fragment of false cirrus showing up against a rather fine cumulus, but the remaining clouds in this picture spoil what might otherwise have been a successful cloud study. True cumulus should surely be a cloud type which would lend itself to the artist's needs without any departure from the forms provided by Nature; but in many cases these clouds are given the most grotesque and unreal shapes, which completely spoil the picture to the observant lover of the country. On the other hand, some of the most successful clouds in the exhibition appear in B. W. Leader's "The Weald of Surrey" (51) and A. R. Quinton's "The Road over the Downs, Sussex" (695), where clouds of the cumulus and strato-cumulus types are both true to Nature and blend admirably with the peaceful scenes depicted. Less peaceful, but with an equally admirable effect, is A. W. Parsons's "Rolling from the West" (196), where similar clouds are depicted over the sea. In the most prominent picture of the second gallery, "Cader Idris" (87), H. Hughes-Stanton includes clouds of the cumulus type which, in their hard outlines and rather unnatural colouring, are very jarring when inspected from any of the nearer parts of the room; but if the picture is

viewed from the greatest distance possible the effect becomes more attractive, and the lights and shadows of the clouds blend into one another in a more harmonious whole. A very similar effect is produced in the smaller work by the same artist, "Welsh Hills near Barmouth" (602).

When looking at a wide stretch of country, whether it be an extensive plain as seen from the top of a range of hills, or the hills and valleys of a mountainous country viewed from some vantage point, the most attractive effects are often obtained on a day when the sky is covered with detached clouds of the cumulus type, causing a bright contrast between the light and shade on the country below. A scene of this kind is depicted by Bertram Priestman in "The Walls of Langstrothdale" (114), but to the critical observer the whole is spoilt by the unreality of the clouds themselves, though the shadow effect on the ground is more successful. The only type of cloud which is almost uniformly well dealt with is where the "clouds" appear as mountain mists, and one concludes that artists must subject this type to much more study than the clouds in the sky above. Some of these mountain mist effects are notably good. "The Head of the Glen," by Peter Graham (439), and "Yarrow: The Vapours Linger Round the Heights," by Alfred Parsons (126), may be mentioned amongst others in this connection. In "Easedale Tarn, Westmorland" (207), J. H. Crossland has shown us clouds over a mountain-top which are delightfully real. Attempts to indicate showers passing over a landscape generally lead to a more successful portrayal of the dark falling rain in the shower than of the cumulo-nimbus cloud above. This appears to be a subject that might give far more realistic and attractive results than any shown in this year's exhibition. "The Gravel Pit," by Arthur Friedenson (583), seems to be the most successful of those exhibited. The high cloud at sunset in B. W. Leader's "Still Evening" (175) raises an interesting speculation as to the probability of the conditions shown being true to life. Bands of high cloud are brightly tinted pink in the rays of the setting sun, whereas other clouds in the same part of the sky, but at an apparently higher level, are illuminated, but without colour. The writer does not remember a case of this kind coming under his observation, although it appears not to be impossible. The interesting and quite common case where the high clouds are illuminated with a pink glow, while the lower ones have already passed into the shadow of the earth, does not seem to have attracted the artist's imagination. Very interesting information as to the relative heights of different cloud layers may sometimes be obtained in these circumstances.

Observers often, in dealing with Nature herself, have difficulty in deciding to which of the artificial types of the international classification a cloud belongs, so infinite are the varieties which occur, but all meteorological observers who visit the Academy will undoubtedly give a sigh of relief that they are not expected to classify the strange

shapes which appear in the sky in "Evening" (233), to mention one case only, though it does not stand alone. In "Wind from the South" (383) the artist presumably set out to portray falling snow; but surely with a title so meteorological he might have given more careful attention to the meteorological elements in his picture. Finally, all who hold that gunfire has an influence on rainfall should undoubtedly visit the Academy for confirmation of their views. If the clouds over the battlefields of France really take the forms shown in some of the pictures (notably "Dawn," 333), few will have the hardihood to maintain that the rainfall or even the entire climatic conditions of the neighbourhood may not be seriously affected.

J. S. D.

#### THE CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

A FEW months ago (NATURE, January 10, p. 369) attention was directed to a report of a special committee appointed by the British Science Guild and published in the journal of the Guild for December last. The report discussed the manner in which the trustees of the Carnegie Trust for the Universities of Scotland were carrying out their purpose of strengthening and developing scientific research, a question which was raised by Prof. Soddy in *Science Progress* for January, 1917. The recent issue of the sixteenth annual report of the Carnegie Trust seems to call for some further comment in connection with the criticisms then advanced.

The report shows how the grants have been distributed during the year 1916-17. Since this is the fourth year of the third quinquennial period, no vital changes in the general character of the report are to be expected. A new feature is the list of the trustees and the members of the executive committee, which is printed on the back of the title-page. When it is borne in mind that one of the main purposes of the Carnegie Trust is to improve and extend the opportunities for scientific study and research, it is matter for some surprise that of the twenty trustees four only can be regarded as men of science with direct knowledge of the meaning and methods of research. There is improvement, however; for originally there were only two, and for a short interval none, who could be ranked as men of science.

As regards distribution of grants under Clause A of the trust deed, the present war conditions have naturally had important effects. Large sums granted towards the cost of new buildings have not been expended. In the case of the Universities of Glasgow and Aberdeen these sums are simply held over; but in the case of Edinburgh a sum of 31,000*l.*, originally allocated over the five years for buildings and permanent equipment in chemistry and anatomy, has been diverted for the endowment of a professorship of chemistry in relation to medicine, a professorship of French, and two new