

memory may prevent the performance of a measuring experiment, *e.g.* in the recent Cambridge local examination one simple question, to find the area of an ellipse by two methods, is a very admirable question, but presumably one-half the marks allotted are lost should a candidate forget the formula πab .

And, again, it was required to find the specific heat of a liquid by a non-mixing method. Why should this restriction have been made? The practical exercise is sufficiently difficult without any restrictions as to the process employed.

It is only fair to the science teachers in schools to call attention to this side of the question of knowledge-making power in boys, and, instead of merely saying that few teachers have the necessary inspiring spirit, to point out the hindrances with which they have to contend, as Prof. Macgregor has done.

G. H. WYATT.

Emmanuel School, Wandsworth Common, S.W.

Echelon Film Gratings.

MANY of your readers will doubtless be interested to learn that Mr. T. Thorp, of Manchester, who has so successfully reproduced copies of Rowland's gratings, has been able to make an "Echelon" grating on the principle suggested by Prof. A. A. Michelson last year, but stated to be well-nigh impossible on account of mechanical difficulties. The success of the operations depends on the shape, depth, and spacing of the grooves, and after many calculations and preliminary trials Mr. Thorp finds he can produce echelon films throwing the *whole* of the light into the first, second, or other requisite order, the direct image being practically suppressed. The first successful films made in this way were obtained in November last, and it is hoped that in a short time several will be available for examination. If permanent, they should be capable of giving star spectra with the same facility as prisms.

Royal College of Science, S.W. CHARLES P. BUTLER.

The Stockholm Fisheries Conference and British Fishery Investigations.

IN my letter published in NATURE of January 4, I attributed to the Government a larger grant in aid of the fishery investigations of the Royal Dublin Society than was actually given. My friend Mr. Holt informs me that, of a total sum of 2800*l.* originally provided for the work of the Marine Laboratory for five years, the Government only supplied one-half, viz. 1400*l.*, the remaining 1400*l.* being voted by the Society out of its private funds. It being found impossible to carry out the work satisfactorily with such small funds, the Society has recently voted a further sum of 500*l.* for the purchase and equipment of a fishing boat. My contention that existing institutions should be adequately supported before Government money is employed for starting a new organisation is therefore considerably strengthened.

E. J. ALLEN.

The Laboratory, Plymouth, January 12.

THE REPRESENTATION OF THE UNIVERSITY OF LONDON.

IT would seem that the University of London is in some danger of missing a great opportunity in connection with the vacancy created in its representation by the elevation of Sir John Lubbock to the Upper House.

Our readers need not be reminded that the theory on which the representation of academic bodies in Parliament is based is often assailed by politicians and thinkers, and is only tenable on the assumption that those bodies may be trusted to select persons of special eminence in science or learning, and qualified to obtain the confidence of the nation as representatives of its higher educational interests. This principle has been kept in view by Dublin in its choice of Mr. Lecky, by Cambridge and Oxford in the choice of Prof. Jebb and Sir W. Anson, and by the University of London so long as it was represented by Mr. Lowe and Sir John Lubbock. Unless men of higher intellectual rank than mere politicians are sent to the House of Commons by the Universities, there would no longer be any *raison d'être* for

University representation at all, and in a democratic community the privilege would not be likely to survive long.

It appears now that there are two small Committees—the one Liberal and the other Unionist—which seek to control the Parliamentary elections of the University; and that on this occasion, instead of heeding the larger public interests involved in a University election, each caucus has been content to nominate one of its own active members, though wholly unknown to the learned and scientific world, or indeed to the general public.

Dr. Collins, the nominee of the Liberal party, took a very distinguished degree in medicine and surgery; has been prominent in the domestic controversies of Convocation, and has been for a time a member of the Senate. Outside of the University he is known as a man of great ability and promise, who achieved marked success as Chairman of the London County Council. But he is considered very unlikely to secure the adhesion of the medical or the scientific graduates.

Mr. Edward Busk, the Unionist candidate, is less known to the outer world. He has a creditable reputation in his own profession as a solicitor, and also as Sir John Lubbock's election agent. As chairman he has paid assiduous attention to the meetings of Convocation and of the annual committee: and has come to be regarded by a certain section of the members—especially by those who opposed the recommendations of the Royal Commission and the University Act—as in some way a guardian of the interests of the country graduates. But his supporters do not claim for him that either in the departments of scholarship and science, or in general academic or educational politics, he has yet evinced any interest or is known to possess any authority or influence.

The fact that both of the Committees, with their special command of electioneering apparatus, have been able to gain a start in point of time, and in some cases to secure provisional pledges, ought not to conceal from the general body of graduates the gravity of the present crisis, or prevent them from acting with due care and circumspection and a strong sense of responsibility in the choice of their member. The truth is that neither of the candidates selected by the named party organisations is of the *calibre* required to fill the seat of Sir J. Lubbock. The election of either would lower the reputation of the University as a learned body, and bring serious discredit on the principle of University representation itself. This has been pointed out with strong emphasis in letters and a leading article in the *Times*, which it is reasonable to expect that the graduates will not fail to consider with attention.

It is to be hoped that before the seat is actually vacated the name of a distinguished graduate may be submitted to the electors—a name not associated with any party politics, but commanding high and general confidence in the scientific and learned world.

ZOOLOGY AND THE AUSTRALIAN MUSEUMS.¹

ALL who are interested in Mammalian Palæontology and exploration in the Interior of Australia will readily recall the graphic account contributed to our pages in 1894 (NATURE, vol. 1, pp. 184 and 206), by Prof. Stirling, of the work of an exploring party sent out to Lake Callabonna, under the auspices of the South Australian Museum, of which he is the Hon. Director, for the purpose of collecting the remains of the gigantic vertebrates of Pliocene age known to be there entombed.

¹ "Memoirs of Royal Society of South Australia," vol. i., Part 1. By E. C. Stirling, C.M.G., M.A., M.D., F.R.S., and A. H. C. Zietz C.M.Z.S.

"Fossil Remains of Lake Callabonna." Part 1. Description of the Manus and Pes of *Diprotodon australis*. Pp. 40 + 18 photographic plates.