

and H_2 combine to form NH_3 under the influence of the silent electric discharge, while at the temperature of the spark-discharge NH_3 is again split up into N_2 and H_2 . The running down also of HNO , through the whole series of oxides into ammonia in the Grove cell is full of interest from this point of view, and the subject, with its manifold ramifications, is a fascinating theme for a thesis.

Bishop's Stortford, May 30.

A. IRVING.

An Inverted Slab in a Cromlech.

THE remarkable articles on Stonehenge and other monuments by Sir Norman Lockyer have naturally stimulated reflection upon all that concerns megalithic remains, and therefore, perhaps, the following curious circumstances may be of some interest.

At Henblás, in Anglesey, is a cromlech, or rather, I suppose, a dolmen, of remarkably rude and massive aspect. Two uprights remain, the larger of which is about 15 feet high by 9 feet thick, and both are very rough and irregular in shape. Resting against these, at an angle of about 20° or rather less from the horizontal, is a thinner stone, about 3 feet thick and some 13 feet square, presumably a top-stone. All are of a hard quartzite, which occurs among the schistose rocks of the district. No good exposure of this is known within a mile or so of the cromlech (a fact which Captain Evans, of Henblás, informs me was pointed out to him long ago by Sir Andrew Ramsay). But at the base of the uprights are some obscure exposures that appear to me to be *in situ*, and I am inclined to think, therefore, that the materials were obtained on the spot.

Now the supposed top-stone is rough, like the uprights, on its upper surface, but its under-side is beautifully and finely ice-worn! It is clear, therefore (for it is certainly not a boulder), that it has been turned upside down.

Further, not only is it ice-worn, but the *direction* of the ice-movement can be made out, there being distinct lee-sides to its finely striated bosses, and these lee-sides look to N.N.E. But the natural direction of glaciation in the district is to S.S.W. Therefore, the stone has not only been turned upside down, but turned round as well.

If the materials were brought from some distance, these facts are, of course, of less interest. But if, as I think much more probable, they were obtained on the spot, it is clear that they throw a little light upon the proceedings of the builders in their work of lifting these great stones.

Achnashean, near Bangor.

EDWARD GREENLY.

The Cleavage of Slates.

I FIND that I owe Mr. Fisher some apology for a carelessly worded allusion in my notice of Dr. Becker's memoir (p. 20, May 4). In pointing out that the theory which I criticised had been anticipated by Mr. Fisher, I ought, perhaps, to have mentioned that the latter had somewhat qualified his original hypothesis, though the postscript notifying this qualification was, I believe, only privately printed.

Mr. Fisher's further contribution to the question (pp. 55, 56, May 18) is of interest. If it be granted that the cleavage of the Westmorland slates coincides with the plane of greatest distortion, it becomes less necessary to urge the case of the colour-spots in the Llanberis slates; but the suggestion that these have been formed subsequently to the cleavage seems to raise some difficulty. I have seen examples in which the ellipsoidal green spots are shifted by small faults, which are quite obsolete as planes of weakness. This seems to imply that the faults, and *a fortiori* the spots, are older than the cleavage-structure.

ALFRED HARKER.

St. John's College, Cambridge, June 7.

The Inheritance of Acquired Characters.

Is the following an instance of such inheritance? Lately I heard a missionary at a May meeting tell of the marvellous facility with which Chinese children memorise whole books of the Bible; the four Gospels, and sometimes the Acts also, being an easy feat for children of ten or twelve years. Having carefully sought information

from other authorities, I find these facts confirmed, and that the same applies to Mohammedan children. We are aware that for ages their ancestors have been compelled to memorise long portions of their sacred books, and although occasionally we meet with a child of any nation with a gigantic memory, that differs widely from the case of a people where it has become a general characteristic.

June 7.

W. WOODS SMYTH.

THE UTILITY OF AN ANTHROPOMETRIC SURVEY.¹

THE Government which has shown so scientific a spirit as to create a Council of Defence, a constant spirit of intelligence to safeguard the Empire amid the development of armaments of other nations, might surely devote attention to that recommendation which stands first in the report of the interdepartmental committee on physical deterioration:—"With a view to the collection of definite data bearing upon the physical condition of the population, the committee think that a permanent anthropometric survey should be organised as speedily as possible. . . ."

What are the results to be expected from such a survey as was sketched out at the Cambridge meeting of the British Association last summer? An improvement in the education of the people will surely follow.

At the time of the Elementary Education Act, 1870, the re-distribution of the populace, that progressive change by which the increasing majority become citizens and cease to be country folk, was not realised. The increasing demands of intellectual exercises upon the time of the children and loss of domestic education were not foreseen, or their effect in making the requirement most urgent that the physical side of education should be brought under educational authority or otherwise definitely provided for. Hence a generation passes and there is an outcry for physical education. Let us hope a coming generation may not be crying in turn that the moral side of education suffers from want of due attention.

The effect of registration—the national survey of deaths—has been a clear guide and a very great safeguard to the public health. One may quote some of the words of Dr. Farr which are to be found in his first letter to the first annual report:—"Diseases are more easily prevented than cured, and the first step to their prevention is the discovery of their exciting causes"; again, "indirect influence (of these reports) upon practical medicine must have been very great. The constant endeavour after exactness of diagnosis and precision of nomenclature is itself a wholesome discipline, which reacts inevitably upon treatment." Who at that time could prophesy the value, topographical and historical, we now find in these reports?

The anthropometric survey will have upon the sphere of education an equally large and discriminating, if often indirect, influence; it will react upon medicine as well as upon education; it will detect any deterioration of the young adult that is due to the factory and workshop; it will determine the influence of environment upon physique, and, as Mr. John Gray says, "without an anthropometric survey, we are in this important question of sound national physique 'like a log drifting nowhere'; with a survey, we should be like a ship, steering by chart and compass to its destination."

In the influence of body and mind upon one another, it is to anthropometry we must look for certainty of judgment. Mr. H. G. Beyer pointed out to the

¹ Physical Deterioration; being the Report of Papers and Discussions at the Cambridge Meeting of the British Association, 1904, on the Alleged Physical Deterioration of the People and the Utility of an Anthropometric Survey. (Occasional Papers of the Anthropological Institute, No. 2.)