

THURSDAY, JUNE 24, 1880

A STEP BACKWARDS

WE are glad that Sir John Lubbock has given notice that he will call attention to the Education Code and move a resolution, unless indeed the Government themselves are sufficiently wide awake, patriotic, and liberal in its best sense, to step in and prevent Lord Norton's resolution in the House of Lords the other day from attaining the issue desired by the educational obstructionists. Lord Norton's hostility to popular education is notorious, and on Friday he had the honour of being supported by several reverend bishops, who are supposed officially to yearn after the highest welfare of the people. The effect of Lord Norton's resolution would be to cut out everything like real education and training from our elementary schools, and leave nothing but the minimum of instruction in the three R's. It seems hard to have to go over the old ground again, and to show that the pittance of education which Lord Norton and those who side with him would allow the vast majority of the children of the nation, is really no education at all. The objection apparently of Lord Norton to the retention of the specific subjects of the fourth schedule is that their introduction has been too successful; that in some schools the talents of a few pupils under this system have been so developed that they have been continued at school beyond the age of fourteen. Considering the ample opportunities which charity has provided for the education of the children of the class to which Lord Norton and his supporters belong, it seems to us mean in them to grudge the pittance expended by the country in encouraging a few hundred clever boys of the humbler classes to pursue their education to a degree for which they have shown special aptitude. We are especially surprised to find among the supporters of Lord Norton's motion the Duke of Richmond and Gordon, who thus condemns the very code which was drawn up under his auspices and which was worked under his superintendence for five or six years without any apparent suspicion on his part that it was not the best possible of all codes. Of course our enlightened statesmen would never stoop to degrade a subject of such national importance into a party question, and therefore the Duke of Richmond and the other enlightened and reverend supporters of the persistent opponent of popular education, did not surely realise the effects of their vote. The real aim of Lord Norton's resolution, there can be no doubt, is to stifle all training in science out of elementary education. We trust Sir John Lubbock will have an opportunity of speaking on the subject in the House of Commons, and reminding our legislators of some of the facts in his impressive speech of 1877. They evidently require to be reminded of what the real object of education is. Mere reading, writing, and arithmetic is but a poor and inefficient equipment for those who will have throughout life the hardest struggle with their physical surroundings. Crime and disease, it has been again and again proved, are more the result of ignorance than of anything else—ignorance, not of the three R's so much as ignorance of our own bodies and of

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the laws of that nature by which we are surrounded and of which we form part. In a former discussion in Parliament on this subject Mr. Playfair showed that many people were appalled by the mere name of science as connected with education, as if it were something beyond the comprehension of any but a select few, and far too remote from human interests to be of any use in a system of elementary education. But Mr. Playfair also showed that what was meant was merely natural knowledge, a knowledge of the facts and laws of nature, a knowledge of our own bodies and of the things outside our bodies with which daily every one comes in contact. In the speech already referred to by Sir John Lubbock, and reprinted in his "Political Addresses," he shows that grammar and even history, as ordinarily taught, are far more difficult and much less interesting than the elements of natural knowledge, which he maintains ought to be introduced into our elementary schools. Much more, he shows, could be advanced against the utility of teaching grammar than against teaching the elements of physiology or domestic or political economy; and history, as taught in most text-books, is a farrago of figures, crimes, murders, and battles. Lord Norton is evidently so completely ignorant of the real nature of science—which has to do with tangible, hard, every-day facts—that he thinks all that is necessary might be learned from a judiciously compiled reading-book. The fact is no book of any kind need be required by a competent teacher, and the whole aim and end of science teaching would be missed if it dealt with words and not things.

If it is desired to turn out men and women with well-trained, observant minds, fitted to grapple with the circumstances of the every-day life of the bulk of the people of this country, then the education which results from an acquisition of some of the most elementary laws and facts of nature is absolutely necessary. Moreover it has been clearly shown that in schools where a little science is properly taught the pupils are much further advanced as readers than in schools where there is no variety apart from the old-fashioned three R's. We cannot believe that Lord Norton's resolution will meet with any support outside the House of Lords; should it reach the House of Commons we are sure that body will have too much respect for the bulk of its constituents to insult and injure them by approving of any such retrogressive step.

FRESHWATER RHIZOPODS OF NORTH AMERICA

United States Geological Survey of the Territories—Freshwater Rhizopods of North America. By Joseph Leidy, M.D., Professor of Anatomy in the University of Pennsylvania and of Natural History in Swarthmore College, Pennsylvania. (Washington: Government Printing Office, 1879.)

THE scientific history of the freshwater rhizopods begins only a little anterior to the Declaration of Independence. Rösel (1755) knew of the existence of such forms, which puzzled him. Linnæus (1760) named one of them *Volvox chaos*;—*polymorpho-mutabilis*, the form of whose body was *Proteo inconstantior*. But with the increase in the powers of the objectives used with the microscope,

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