

THURSDAY, MARCH 8, 1888.

PHYSICAL SCIENCE AND THE WOOLWICH EXAMINATIONS.

WE are interested to learn that the views we have expressed on this subject are probably shared by representatives of military opinion; for we are informed that the treatment of scientific candidates for Line cadetships, under the similar regulations for admission to Sandhurst that were introduced in 1884, met with a very unfavourable reception from at least one of the service journals. At the time of their introduction, the *Army and Navy Gazette* pointed out, as we have done, the serious objections that exist to giving modern languages so great an ascendancy as is allotted to them in the present Sandhurst competitions. All that was said on this subject in 1884 applies with much greater force to the proposed mode of selecting officers for the scientific branches of the Army. We do not underrate the value of modern languages to soldiers, or to any other class, but an education in which mathematics and modern languages occupy so dominant a position as they are likely to possess in the education of many of the successful Woolwich cadets of the future¹ is scarcely more defensible than would be the adoption now of the purely classical training of former years. We trust, therefore, that no pains will be spared by those who are interested in this question to further the efforts that are being made to bring about the adoption of a more liberal scheme, which shall encourage early specializing on the part of the candidates to a less degree, and be more just to the particular class whose claims we have urged.

These regulations seem calculated to perpetuate the system of education of which it has been repeatedly complained that "it has too much to do with books and too little to do with things"; and, apart from their unfairness, they will tie the hands of those head masters who are willing, or even anxious, to adapt the work of their schools to the needs of the times, by forcing upon them a narrow curriculum of which they do not approve. This is not only unfortunate but unnecessary, for there is no real obstacle in the way of formulating a scheme of examination that shall both give fair play to all the candidates, and leave the hands of the teachers comparatively unshackled.

Much as the claims of science are still underrated by the unthinking among us, it was hardly to be expected that the representatives of a scientific profession would sanction regulations which will tend to prevent the admission to that profession of youths of scientific power, and which are also calculated to discourage any element of science teaching in the previous education of those who may wish to join it. Complaints of the absence of such training are familiar enough, and regulations intended to encourage such preliminary work are not uncommon. This adds not a little to our surprise at the proposals of the War Office Committee. We regret to perceive in them a fresh

¹ Since mathematical and modern languages will count for 12,000 marks out of a maximum of 16,500, and as about 5000 will be sufficient for success in future, it is not unlikely that many candidates may deem it safest or easiest to almost confine their studies to these two branches.

illustration of the tendency of Examining Boards to sacrifice the interests of the examined to a desire for simplicity in their schemes of examination, a tendency that constitutes a source of serious danger to proper freedom of education in these days, when admission to all the higher avocations is so jealously guarded by competitive or qualifying examinations.

In the discussion of this subject that has occurred in our columns a statement has been made, and repeated, by one of our correspondents, that requires notice. We allude to the contention that chemistry, physics, and geology are not good educational subjects for boys under sixteen years of age. This is a statement with which very few who have given these sciences a fair trial will agree; moreover, it is not pertinent to the question under discussion. Successful candidates for the Woolwich cadetships are, we believe, on an average, not much less than seventeen and a half years of age, and in future the average of age is more likely to rise than to fall in consequence of the increased severity of the examination in obligatory mathematics. No liberal-minded man will deny that the above-named sciences are exceedingly good educational subjects, between the ages of fifteen and seventeen and a half years, in the case of those who have ability and liking for them, by whom alone they will as a rule be studied among the candidates for Woolwich. Of course there are some for whom such studies are unfitted, but we very much doubt whether the military authorities will greatly regret the rejection of such as these. Their powers are likely to be more profitably employed in other directions.

If we may judge from the memorandum lately issued with the Army Estimates by Mr. Stanhope, we may conclude that the present time affords a good opportunity for urging upon his notice the thoroughly unpractical character of the proposed changes. The frankness with which Mr. Stanhope admits other deficiencies in the system of our military administration encourages the expectation that in this matter also he will act with an equal degree of practical sense, and that it will not be long before we shall hear that the efforts of those who have taken up this matter are bearing fruit.

PROFESSOR FLEEMING JENKIN.

Papers, Literary, Scientific, &c., by the late *Fleeming Jenkin, F.R.S., LL.D.* Edited by Sidney Colvin, M.A., and J. A. Ewing, F.R.S. With a Memoir by Robert Louis Stevenson. 2 vols. (London: Longmans, Green, and Co., 1887.)

THIS is a work of great interest to many classes of scientific men, as well as to the public at large. Its contents are of an extremely varied character. Readers of *NATURE*, as such, are not deeply concerned with discussions of Female Dress in ancient Greece, with Rhythm in English verse, or with the characteristics of Mrs. Siddons as an actress. Nor will they, as a body, care much for the merits and demerits of Trade Unions, the relations of Supply and Demand, or other branches of the would-be science called Political Economy. The literary and economic Journals, on the other hand, will probably regard these as among the more valuable contents of these volumes.