

THE LANCET.

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Education and Examination.

WE publish again this week certain selected addresses delivered at the commencement of the October session in the various medical schools, and among those addresses is one by Sir WILLIAM OSLER, which, like every public saying of its distinguished author, merits close attention by those interested in the progress of the medical profession. Sir WILLIAM OSLER, it will be seen, speaks throughout as a frank critic of examinations; he finds over-rated both their importance as a test to those who pass them, and their value as machinery for educational purposes. He does not go so far as some have done and suggest that examinations should be abolished, for he is a practical man, and realises that the public, who depend on our professional ministrations, should have a guarantee, itself open to test, that those on whom they rely for medical service are educated up to a certain standard. Examinations form the ready way in which it is possible for those responsible for the medical education of the country to make out a list of practitioners who can be publicly hall-marked as educated, but to allow this is not to allow that in the multiplicity of examinations lies the safety of the public or the elevation of the medical profession to any exalted academic level. We have before now expressed in these columns our entire approval of a motion introduced at the General Medical Council many years ago by that fine and clear thinker, Mr. T. PRIDGIN TEALE, which ran as follows: "That the present system of accumulated examinations and the enormous increase in the number of rejections resulting from it are not only unjust to the student, but damaging to medical education." The figures which Mr. TEALE depended upon in support of this motion indicated that the percentage of rejections at medical examinations had progressively risen from 12.4 in 1861, to 22.2 in 1876, to 34.8 in 1886, and to 41.9 in 1895, while, as Sir WILLIAM OSLER shows in the address which we publish to-day, the five years 1903-12 display a continuation of this significant movement. There can be no two opinions in the matter here—something is wrong when we regard such a percentage of rejections at examinations as the normal outcome of our methods of education.

The statutory period of studentship in medicine in this country is five years, and for practical purposes the time taken by the student to pass his necessary examinations is now seven years. Seven years is a large slab of any man's life, and when those years are taken between such ages as 19 and 26 they cover the flower of adolescence. Stronger in body perhaps, and for certain both richer in learning and more discreet in council, will the young man become, but

never again for him can the days have quite the radiancy and flavour of youth. It is no light thing, therefore, that this precious period should in the case of our medical students be too often a period of muddle and mortification. Seven years is not too long a time in which to acquire a working knowledge of the medical profession; but, again, in the absence of any definition as to what constitutes a working knowledge of the medical profession, five years may not be too short a time. It is admitted now on all hands that the medical man must remain a student to the end of his days, and no medical men are happier than those who recognise this fact and who steadily maintain themselves in touch with their profession by attendance at post-graduate classes or by an interchange of views at scientific debates, where personal experiences can be collated and the latest general principles can be adopted with some fulness of knowledge. If the medical man is thus happy in adding to his store of wisdom, why, it may be asked, condole with the medical student because his time spent in adding to his store of wisdom grows longer? The point is that the medical student and the post-graduate student are not in the least comparable persons, while in speaking of the modern medical student we are speaking of a young man for whom it is probable that somewhere in his lengthy career of examinations mortification awaits him. The post-graduate student continues to work, as opportunities serve him, at the practical side of his profession, either in the direction which has for him the chief scientific appeal or that in which he feels that his knowledge particularly requires supplementing. In either case he works *con amore* along lines agreeable to himself, in order to satisfy his conscience, to realise his ideals, and perhaps to make as certain as possible of professional success of a desired sort. The medical student in entering for his first examination may be single-minded in his desire to get forward and to learn more. The rejected student works in no such spirit at all, and a vast number of our students are rejected at least once. In many instances there is with the rejected student an abiding sense of injustice. Of course, we know that very often that sense of injustice is not justified; on the other hand, it must be admitted that the element of chance plays a considerable part in the results of examinations, both pass examinations as well as competitive. In every final examination in medicine we may be fairly certain that some 15 per cent. of the candidates upon re-examination would change their places from rejected to passed, and *vice versa*. Professor EDGEWORTH'S well-known figures in respect of examinations for the Indian Civil Service, the Home Civil Service, and the Army may be recalled. In these examinations he found in an ingenious manner the element of luck to be such that in any given examination the chances of displacement upon re-examination would amount to one-seventh. Again, there is a feeling, sometimes just and sometimes not, among many students that, although they do not happen to be able to satisfy an examiner with the answer expected, often the question is of the sort that in real life would have had no terrors, inasmuch as in real life either there would be time to clear up the point by consultation of books, or it would not matter in the least whether the point was cleared up.

Students who have grounds for considering that the element of luck is too high, or who feel that an examiner is trying to pose them rather than to ascertain the value of what they know, do not face re-examination with any great relish, and some are beaten before the fight begins.

What is the lesson to be drawn from the admitted fact that our system of examinations, however necessary and however honestly planned, may have a blighting effect upon what is best in the medical education of many of our students, leading too often to a waste of the time of both teacher and taught? Dr. WILLIAM HUNTER, of whose annual report as dean of the Charing Cross Medical School a large portion is published in our present issue, supplies interesting material for an answer, and the answer is coördination. Dr. HUNTER is speaking of London only, and the education of the London medical student is in a critical position, as we await anxiously the new scheme under which the University of London may prove itself a more vital and practical force in the education of our students, making full use of the splendid pathological material of the metropolis and of our unrivalled system of clinical training. But in London there are educated a very large percentage of all English medical students and not a few of those who receive their degrees or diplomas from other educational centres, and if order is introduced into the education of the London medical student we shall have taken a great step towards removing the general conditions of waste and disappointment. What are really necessary at the present moment are patience and adaptability. If with as little friction and delay as possible a new scheme comes into being for the education of the London student possessing the admitted virtues of our present system, but having also a simplicity, economy, and effectiveness which results show to be lacking now, much indeed will have been accomplished. Those who are providing for the country with great zeal and self-sacrifice the national training of our young medical men are not of one mind in detail with regard to a metropolitan university; but as all alike deplore the multiplicity of examinations for which the student has to sit, and the inevitable interference with the smoothness of the curriculum which is caused by the scandalous number of rejections, we believe that differences of opinion, now so acute, may greatly disappear during the work of reconstruction. London should be able to show the way to employ clinical opportunities and pathological resources in the education of the medical student in such a manner as to transform examinations from vexatious and extravagant breakdowns into reasonable halts upon a well-planned journey.

The Rag Flock Act, 1911.

SINCE the measure known as the Rag Flock Act was passed in 1911 experience has shown that unless certain amendments are shortly introduced its salutary intentions may be defeated. The main purpose of the Act was to prevent the use of insanitary material, whether it was made from rags or anything else, in the manufacture of flock for bedding. It was an Act primarily designed to secure clean materials for the mattress on which we sleep, and no

one is found to say that this is not an important matter. Judging from the attitude of some magistrates, however, there seems to be a disposition on their part to treat offences under the Act in a trivial way, and this is not in accord with the best traditions. Such an attitude may arise from an ignorance of the real importance of the aim of the Act or because the Act allows a freedom of construction which enables clear cases of offence to escape. It appears, according to the views of at any rate one sanitary authority—viz., the health committee of the corporation of Bradford—that the Act requires strengthening in regard to working definitions. The members of this committee have made, it seems to us, some trenchant suggestions in this direction. They have asked, for example, for a definition of the expression in the Act "flock manufactured from rags" so that it may include flocks whether made directly or indirectly from rags or from some one or more intermediate processes in the conversion of rags into shoddy cloth, as well as flocks developed in the milling, raising, cropping, and other processes which take place after shoddy cloth has been woven. They suggest, also, that the word "rags" shall include all fabrics whatsoever, whether woven or felted, which are admittedly destined for conversion into flock. These recommendations to the Local Government Board, made with the view of securing an amendment of the Act, mean that there are deficiencies in the measure which permit a limited application of its provisions, or which lead to a failure to secure a conviction when an obvious breach of sanitary requirements has been committed.

We learn also that quite recently a practice has arisen which, while satisfying the Act in regard to the statutory limit of chlorine capable of being washed out of rags, may leave in the material undesirable solids and dirt. It may be remembered that the Act states that flock may be passed as having been satisfactorily cleaned or washed which does not yield to distilled water more than 10 milligrammes of chlorine in one litre of wash prepared on well-regulated lines. This test is based, of course, upon the probable presence of soluble impurities in the fabric, but leaves untouched the question of insoluble impurities. The Act would seem, in short, to provide for soaking the material, but not for the thorough washing of it, using that word in the sense of removing all impurities detachable by a washable process. It follows that a mere soaking of flock may fulfil the requirements of the Act in regard, that is, to the chlorine standard (soluble impurities), but the process still leaves the fabric unclean, dirt of all kinds and much objectionable matter not being eliminated by the ordinary process of soaking. The matter is simple in the case of linen. It is obvious that the mere soaking of a shirt in water will not render it clean or presentable, thorough washing is required to take away all evidence of soiling. That is what the Rag Flock Act should ensure in the case of rags intended for bedding if it is to succeed at all under the dignified title of a sanitary reform. On the face of it, it is difficult to suggest how the question of mechanical scouring, the removal of dirt and so forth, can be controlled by laying down a standard unless that control be an actual experimental washing itself. Possibly it may be