

Occasional papers on University matters and middle class education : together with full information as to the local examinations and recent University changes.

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University of Cambridge.
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Publication/Creation

Cambridge : Macmillan, 1858-1859.

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1858 59
OCCASIONAL PAPERS

ON UNIVERSITY MATTERS

AND

MIDDLE CLASS EDUCATION;

TOGETHER WITH

FULL INFORMATION AS TO THE LOCAL
EXAMINATIONS AND RECENT
UNIVERSITY CHANGES.

December, 1858.

Cambridge :

MACMILLAN AND CO.

AND 23, HENRIETTA STREET, COVENT GARDEN, LONDON.


1858.

ADVERTISEMENT.

THE Establishment of the New Examinations for those who are not Members of the University has very much widened the class who take an interest in our proceedings, and there are many who would be glad to know with regard both to this measure and other questions and changes affecting the University, not only what has been done, but also what we hope to do, as well as the views with which the University has acted, and the state of opinion here upon important Educational questions.

It is felt that the University and the Schools could cooperate more effectually if there were some means of giving publication to valuable suggestions from without, and explaining our own difficulties and intentions and prospects.

The recent changes have been also so considerable that some complete account of the method of proceeding to the various degrees is much called for. It is the object of this publication to meet these wants for the present ; circumstances must determine whether it shall be regularly continued, and if so what form it should assume.



I. THE CAMBRIDGE SCHEME FOR LOCAL EXAMINATIONS.

THE new University Local Examinations have beyond doubt done this good service. They have attracted much attention to a very important matter, and by means of the criticisms and letters which have appeared on the subject, have brought much valuable truth to light.

The impression that they will do good on the whole seems to be very general; but persons in discussing whether or not they will effect the ends for which they were designed have found that they were by no means agreed as to what those ends were, or upon the character in which the University entered on the undertaking.

Now it is no disparagement to the original measure or to its first promoters to suppose that it was devised and put into execution, before people were at all agreed on the theory of the scheme to which they gave their support for its practical value. Such a mode of proceeding is by no means foreign to our English ways, and carries with it no augury of ill success.

The new Examination Statute was passed at Oxford with some precipitation, in order to meet a want which was represented as widely felt and pressing, and as the scheme might have lost more from its authors failing to take advantage of the popular favour which greeted its birth, than it would have gained from being let to grow into a more perfect shape, we conclude that the Oxford delegates acted rightly in urging it forward. Cambridge, however, has acted deliberately. It is true the ground-plan of the design had been drawn by Oxford, or rather by those who went to the University, saying, "This is what we want;" but as we obliterated some of its main lines and laid down others, we must be answerable for the scheme as it stands.

In what light then, it is asked, do you regard these Examinations, and in what capacity do you carry them on?

In reply to these queries we say as follows:—

Most of the higher class schools in this country, either in obedience to statutes or because they find it desirable, are examined yearly sometimes throughout, but more commonly as regards the upper forms only, by Masters of Arts from the Universities; this practice has been found a very beneficial one, both in giving confidence to the public and affording

a stimulus to masters and boys: but this advantage is beyond the reach of a very large number of schools, in which the advanced pupils are not sufficiently numerous either to afford a spirited competition or to justify the expense of such an Examination. The University is then asked to enter into arrangements for extending to such schools, by examining their pupils in common, the advantages which had been confined to the larger establishments.

It was in this form that the project was first presented to us at Cambridge, and if we examine the proceedings of the University in this matter we shall find that this leading idea of the undertaking has been kept in sight.

Thus the University regards herself as acting solely upon invitation from without; just as individual Examiners were invited by the several schools, so are the Examiners appointed by the Corporate Body invited to hold Examinations in the several towns. The examining of youths whom she has not taught and who are not coming to her for instruction, is no part of the regular functions of a University; she requires good reason for stepping out of her proper path, and such reason she finds in the fact that an appeal has been made to her, based on the public confidence in her Examinations, to do a service to education generally, which she is happy to be enabled to render.

It is from this view that the University has declined to take the initiative in any neighbourhood, or to send deputations to agitate for the organization of local Examinations.

The granting of a title is foreign to this view of the subject; the proposition to do so was never favourably entertained at Cambridge. Individual examiners arranged the various forms of the schools in order of merit, and often gave, when requested to do so, private testimonials of proficiency; so the University in her corporate capacity puts forth a class list: the first three divisions containing the names of those who receive certificates of honour, and the fourth, certificates of having passed to the satisfaction of the Examiners; in both cases the subjects in which the Candidate has been examined are stated.

Now to give a certificate that a youth has been examined in certain subjects, and has been found to have a creditable or satisfactory knowledge of them, is only speaking to a fact, is only doing what schoolmasters and school examiners are in the habit of doing; but by bestowing a title, particularly one which may be mistaken for a University degree, we involve ourselves in a serious responsibility to the public. They might say, "We know your coinage and

your money passes with us; here is a new coin that you have put out, struck from a die like your old ones, but of different metal. Tell us exactly what you mean it to go for." Could we conveniently give a precise answer to this question? Again, not only should we incur a serious responsibility in giving the title, by putting yearly a stamp on a number of young men according to the results of a single examination at an immature period of life, but we should incur a still more serious responsibility by withholding it, when by the limitation of age we could offer no opportunity of recovering himself to a person who had failed. At the Universities a "plucked" man can wipe out his disgrace, his self-respect is restored by eventual success, and he obtains that degree which gives him a passport to a profession. But if the A.A. title is to have any marketable value, and the whole scheme rests on the supposition that it will, an individual who is deprived of it will suffer a lasting injury. Moreover, a person who has not had the means of obtaining a University degree in early life, may, if he afterwards feel the want of it, obtain that distinction; but no such person would ever have any chance of obtaining this title and its advantages, if circumstances had prevented his doing so at the age of seventeen. If to obviate this we were to abandon the limit of age, then we change the character of the undertaking in its essential points; it becomes too vast for our means, and altogether unmanageable, besides that it can no longer be regarded as an educational instrument for testing and influencing schools. It would then come to this, that the University should set up a kind of mart to which every body might come and pay in any information he had, claiming a ticket in return, which he might wear in his hat.

Now it may or it may not be desirable that such a *crédit mobilier*, for rendering all kinds of knowledge immediately convertible into the current coin of a title, should be established in this country. But no possible reason can be given why the Universities should be called upon to set one up; why they should be bound to be at the beck of every one who cries, "I know something—come and examine me." The special business of the University is to give the higher kind of education. She regards Examinations chiefly as a means of guiding and enforcing study, and those which she offers to the Schools are entirely directed to this end. It is most important to bear this in view, because the nature of the Examination should vary with its object; because it makes all the difference in the instrument we employ, whether we want to test the possession of sufficient knowledge to discharge

certain duties,—as is the case when a person's fitness for a government situation is in question, or to pick out the men of the greatest general ability and mental culture,—which is the object of the Examiners for the Indian appointments, or whether, as in the present instance, it is our object to mark out a course of study, and, at the same time, to discover those who have pursued it with industry and intelligence.

Moreover, in an Examination of this kind, it is most important that the Examiners, both all those of each year and those of successive years, should have a definite understanding as to the standard of merit which they expect candidates to reach; and for this purpose it is essential that they should have a clear idea of the scope of the Examination.

Persons who have been accustomed to deal with schools, and fortunately we possess many such amongst us, will have no difficulty in arriving at a distinct conception of the amount of knowledge of each subject which they would consider satisfactory in a youth of fifteen or seventeen. But the task would be very much more complicated if they felt that they were awarding University titles to be borne through life. Their thoughts would then involuntarily turn to University Examinations, and they would be led to lose sight of the fact, that the knowledge they had to look for was different, not only in degree but in kind, from what might be expected in an Undergraduate.

The incompleteness and want of mastery of his subject, which in the latter is a serious defect, because he has been long trained to distinctness of thought, and may be expected to have stowed away his knowledge so that he can lay his hand on it, is incidental to the schoolboy stage of mind, and a precocious precision is not a very hopeful sign. If this is not kept in view in conducting the Examination, a temptation to an injurious forcing process will be held out.

We trust however that the Cambridge scheme, inasmuch as it may be altogether regarded as an organised system of Examination of Schools will not be open to objections on the ground of indefiniteness of purpose or character. At the same time we can hardly hope but that some defects will shew themselves when the scheme is brought to work. It was in anticipation of this, and because extensions of the plan were seen in the distance, that a provision was made in the Grace for bringing the working of the system under review every year by means of a Report to the Senate; this will afford a ready opportunity of introducing any modifications which may be thought desirable.

II. THE LAW TRIPOS.

AMONG the various alterations which have been made in the University Examinations, there is probably none which promises to produce more immediate benefit than that which relates to the Law Degree.

Previously to the present year the examination for this degree was confined to a single subject, viz. the Roman Law. But however valuable an acquaintance with the *Corpus Juris* may be as an auxiliary to other legal learning, still the student whose labours have been confined to this subject, will remain a stranger even to the rudiments of knowledge which is indispensable in every vocation connected with the Law.

In order to remedy this very obvious defect, the Law Examination will for the future extend to the elements of English and of International, as well as of Roman Law. Considering the facilities for the acquisition of legal knowledge which the University offers to students, by means of its Public Library and courses of lectures, not merely on law but on kindred subjects also, it is probable that preparation for this degree will, at no distant period, be recognised as the best introduction to the systematic study of the English Law.

Nor, should this anticipation prove correct, is there any danger that the influence of the Law Tripos will interfere with those studies to which the highest University distinctions have hitherto been awarded. The Senate has, wisely, as we think, provided that a Bachelor of Arts who has taken honors in any of the examinations for the B.A. degree may become a candidate for the LL.B. degree at the next subsequent examination, which according to existing regulations will take place nearly a year after the B.A. degree. Those undergraduates therefore who, though they may be desirous of ultimately pursuing the study of the Law, wish in the first place to devote themselves to mathematical or classical studies, with the view of obtaining a high place upon one or both of the principal triposes, may postpone their legal studies until they have taken the B.A. degree. Whilst, on the other hand, those who consider that their prospect of gaining a good place upon either the mathematical or classical tripos, is too slight to justify them in devoting three years to the

pursuit of this object, may, immediately after the passing the "Little-go" examination, enter upon a course of reading for the LL.B. degree. This will afford them more than a year and a half for preparation; and they therefore cannot justly object to being placed in competition with Bachelors of Arts who have taken that degree less than a year previously, and whose time before taking that degree must be supposed to have been fully occupied with the subjects to which it relates.

But the advantages which may be expected to flow from the change that has been made, are not, in our opinion, limited to improvements in the studies of the University. The most enlightened Law reformers of the day have long arrived at the conclusion, that without an improved system of legal education, no effectual progress can be made in reducing the vast mass of English Law to order, or even in preventing it from becoming yet more chaotic than at present. Now what can be more propitious to the study of the Law than that it should be pursued in conjunction with other branches of learning? Sciences mutually promote and assist each other. System and arrangement are common to all: and therefore none can flourish in full perfection if cultivated only apart from the rest. The classical work of Blackstone, which has rendered invaluable service to English law, is due to the establishment of the Vinerian professorship in the University of Oxford: it may not be too much to hope that a scientific school of English jurists will be produced by the much greater encouragement now offered to legal learning by the University of Cambridge.

W. L. B.

[The English disputations which now form part of the Examination for Honours in Law were held for the first time on the 29th and 30th of November last; they were conducted by the Regius Professor and the other Examiners, and were considered to have been very satisfactory. The method of proceeding is this: the Candidate begins by reading an English Essay on a subject given him by the Professor: questions are then put to him relating to it. Afterwards a disputation takes place on some point of law which the Candidate has selected for discussion with the approval of the Regius Professor. The disputation must occupy an hour at least; it is conducted in public.]

III. INDIAN CIVIL SERVICE EXAMINATION.

It is a matter of congratulation that the Examination for the Indian appointments has come into the hands of the Civil Service Commissioners.

The principle on which this scheme was based was most sound, the object of its framers was to obtain the ablest and most highly educated men they could for the Indian appointments. They meant therefore to regard knowledge less for the immediate use to which it might be put than as a criterion of its possessor's grasp of mind and distinctness of thought; they knew that if the metal were of the best description and well wrought, it could be easily fashioned into the instrument wanted, and be tempered to take an edge of the requisite fineness. They very wisely therefore gave no great prominence to Oriental languages or similar subjects which might seem to bear on the duties the successful candidates would have to fulfil. If they had done so they would have got men nurtured on worse intellectual fare and so more stunted in their mental growth, for no one will contend that Oriental scholarship affords a good liberal education; and, what would have been at once fatal to their plan, instead of being able to draw for their candidates upon all the educated youth in Britain not better provided for, they would have had to make their choice from among some few whose parents had destined them for this Examination from their early youth, and had been content to risk all their children's prospects upon this single venture; for if one thus educated had missed an appointment, he would have found himself stuffed with an unsaleable commodity, and fit for nothing whatever.

The general idea of the Examination then was a good one; but so complicated a machine could not have been expected to work quite smoothly all at once; some wheels would be sure to be not quite accurately centered, and a good deal of adjustment would be necessary to make it act with precision.

And in fact in the very first Examination several defects became apparent; but so long as the matter was in the hands of Mr Vernon Smith, there was no hope of getting any attention paid to representations; he was not aware of the delicacy

of the process he had in some degree to superintend. Examining appeared to him as straightforward a proceeding as governing an island did to Sancho Panza; and the solutions which he suggested to some of the difficulties might have been put in the mouth of that sapient personage.

The system of Examining by marks, which grew up originally at Cambridge, is now brought into something like scientific method, and certain principles are well established as a basis of proceeding. The views of the Civil Service Commissioners on these points, as far as may be gathered from their papers and reports, are most satisfactory; and there is therefore every reason to hope that the defects in this scheme of Examination, which have prevented people here from feeling full confidence in it, will soon be removed.

While the Examination was in the hands of the Board of Control, complaints were justly made that the papers were set without any consultation of one Examiner with another, and that there was no general understanding as to the standard by which marks were assigned. No objection, on this score, can be brought against the Examination of July last, but the old defects arising from the regulations, which the Commissioners did not feel themselves at liberty to alter on a short notice, were as conspicuous as ever, and their effects were clearly beginning to tell.

It is now quite obvious that the present system is such as practically to put all those who have given any large portion of their time to Mathematics and Physical Science, at a very great disadvantage.

In the scheme, Classics and English stand for 1500 marks each, and Mathematics for 1000 marks. Now the term Mathematics is used, in its Cambridge sense, so as to include Natural Philosophy; and, judging from the value of the subjects comprised and the time necessary to master them, this inequality seems somewhat excessive. But in practice Mathematics do not even yield the proportion of marks which they were intended to give. For while three-fourths of the full marks may be got in the Classical subjects, in modern languages, and in English literature, there have been, since this scheme was adopted, but one or two instances of candidates obtaining more than half the marks in Mathematics; and in some Examinations not more than two-fifths were obtained by any one; while persons, whose knowledge of the subject was considerable, obtained so few that they would have been better off if they had devoted the two months which they had given to get their Mathematics into order for the Examination, to hurrying through some new subject of a

more productive kind. Only one wrangler seems to have presented himself at the late Examination; he was pretty easily successful, but Mathematics, the subject in which his powers had been most brought out, only yielded him one-fifth of his entire marks. Indeed it has now come to be so well understood that for this Examination Mathematics do not "pay;" that Tutors feel bound to warn their Pupils that they must depend on other subjects for success; and Mathematicians have been so repelled that, on the late occasion, out of seventy-five Candidates, there were only seven who obtained the minimum of marks necessary for them to be reckoned at all, and only three of these were among the selected candidates. This shews that instead of the Examiners having before them all the young men of ability who would gladly get an Indian appointment, the area of selection is nearly confined to those whose studies have been directed to Literature rather than to Science.

In the first of these Examinations, before it was seen how the system of marking would act, Cambridge supplied more candidates than Oxford; whereas now Cambridge sends only one-third of the number that Oxford does. In fact the supply from Cambridge is thus almost cut off. Experience shews that men who can get Fellowships will rarely think of India: hence the first half of the wranglers and the first class in the Classical Tripos are not available; but the last half of the wranglers would supply men very suitable, and of a higher calibre than some whom the Government is now forced to take; but this class is almost excluded, because the study to which they have devoted themselves is understood to go for nothing.

The small account that is made of Mathematics is the more to be regretted, as it is the subject which least admits of that "cram" which is the disease attendant on competitive Examinations. The power of applying principles to the working of problems shows that a man's mind has not been a mere receptacle, giving out just what was put in, but that what he has learned has fructified and become his own, that he has in fact acquired a fresh power; while success in a paper of general literature shews mainly that the tutor has directed the pupil skilfully to the proper articles in some Cyclopædia of Biography, and to the likely passages in Shakespeare and Dryden. Indeed the fact that candidates were commonly recommended to resort for a month to suburban tutors to be "got up" in history and literature, shews that a blot in this system of Examinations has been hit by persons who could turn it to account.

We now come to the cause of this scanty return of the mathematical papers. We would by no means imply that the papers were ill judged; on the contrary, on this last occasion they seem to have been set with great care in the hope of remedying the inequality which had been proved to exist. From the nature of the subjects, papers in language and literature always are more productive than mathematical ones proportionally, and this should be borne in mind in assigning the marks to the subjects; a tolerable scholar will get credit for every passage given him to translate, but if a paper is to test the highest mathematicians there must be many questions in it altogether beyond the reading of those whose attainments are still very considerable. Moreover, the restriction of time bears harder on a mathematical man, because a serious error will destroy the whole value of papers which have taken him long to write; while in translation or composition, a mistake can hardly do more than spoil a single sentence.

Again, a man who knows a language has it always by him, he has not to prepare himself for examination, and can spend the last two months very profitably upon English literature and moral Sciences, but a mathematician cannot do himself justice unless he has devoted this or a longer period to bringing his own subjects into a fit state for production. Like a lawyer he must refresh his memory from books, but as with him also, the books would have no meaning to one who had not mastered the subject. This inequality of relative productiveness in different subjects is the great difficulty of mixed examinations, in which the result depends on an aggregate of marks. Various plans of adjustment have been tried, such as limiting the number of questions to be done, and giving a certain choice, but such complications introduce other inconveniences, and when the probable amount of the error can be determined by experience, as may be done in the case before us, it is better to correct for it by increasing the number of marks in the required proportion. If, for instance, it is found that 1800 marks will generally secure an appointment, and that a degree of knowledge which in the judgment of experienced persons ought to advance a man one third of his way only yields him 400 marks, then the total allotted to mathematics should be raised to 1500. It might also be desirable to apportion the total marks between pure and applied mathematics.

It is worth observing, that we find practically that second-rate scholars come much nearer to first-rate ones in the marks got by their own subjects than is the case with mathematicians similarly related. Hence it follows that the inequality complained of operates more between second-rate men in the

different branches than between first-rate ones, and that therefore its most telling effect is to exalt persons of middling acquirements in literature over their mathematical compeers. This point is the more important because it is for the sifting of the second-rate men that we require to have our instrument in the most perfect order; there will generally be no doubt about the men in the first half of the list, but it is very possible that some by taking in many subjects may force themselves into the latter half to the exclusion of those who may give an impression of greater ability and mental culture.

At the late examination, Oxford sent in about three times as many candidates as Cambridge, and the numbers of those who obtained appointments were the same in this proportion. The striking disparity in numbers arises partly from what has been stated, and partly because many of the Fellowships at Oxford as they become vacant are absorbed to found Professorships, so that their able men are worse provided for than is the case with us. For the range of University men available for this Examination varies as the difference between the number of men of fair attainments in a year and the average number of open Fellowships annually disposed of.

This also explains the fact of the Oxford candidates being of greater academical distinction than those from Cambridge. Of the three B.A.s from Cambridge who were selected, one was the twenty-fourth wrangler of 1858, one stood at the head of the second class in the Classical Tripos in the same year, and one took an ordinary degree*.

Among the nine successful Oxford candidates there were several first class men, and some who had obtained a double first class, the highest possible distinction.

The success of Dublin University this year affords a further illustration of what we have said. Since there are no Fellowships there, answering the purpose of ours, the best men present themselves for the Indian appointments, and several of the candidates from thence acquitted themselves in such a manner as to shew that they would have stood extremely high in our Triposes if they had been here.

The necessity of some emoluments in the way of Fellowships to enable a University to produce men of high acquirement is well shewn by the case of Dublin. In the first year of the examination no candidates from thence were success-

* Since the above was written, one of the selected candidates has declined the appointment, which has been given to a Cambridge undergraduate, a scholar of Caius College, who stood twenty-first on the list, and who was only eight marks behind the twentieth man. This gentleman did not take in mathematics,—indeed of our four successful candidates only one did so.

ful, because the necessary stimulus had not existed; now these appointments, acting as Fellowships, have infused into that University a life and vigour which is not the least satisfactory effect of the institution of these competitive Examinations.

Thus Dublin, and the other Universities ill supplied with emoluments, may be expected to stand well in these examinations, at the same time we may be very well contented with the degree of success which the Cambridge candidates obtained, and tutors may be fully justified in supposing that a second class man in the Classical Tripos, or if the marks are fairly adjusted, a wrangler, may with proper direction as to some subsidiary subjects, make sure of one of these appointments. It was to be expected that the proportion of *unsuccessful* candidates would be much less among those coming from Ireland than from England, because no one would come from Dublin without a good prospect of success, while persons in or near London could present themselves without expense, and many seem to have done so merely to gain experience, just as we have here a vast number of candidates for a single University Scholarship. If the Examination had taken place at Dublin, the list of those selected would probably have remained unaltered, but we should have had many more Irish candidates and fewer English ones.

The regulation that no marks in any branch not amounting to one-tenth of the whole number assigned to it be taken into account is applied unfairly to the department of Natural Science. This branch is assigned 500 marks, and the minimum is therefore set at fifty; but it contains five distinct subjects, and therefore a person might get nearly half the marks in Geology, for instance, and would not be allowed anything, while another who got fifty-one marks by a smattering of all the subjects, would be credited with the full amount. The undue weight which the Italian language and English literature (apart from English composition) have carried in the Examination might also be noticed, but there is every reason to hope that the Commissioners will succeed in putting the Examination on a thoroughly satisfactory footing, and that alterations in the scheme of marks will be announced in time to take effect in July next.

We cannot help remarking that the result of these Examinations bears testimony in the most decided way to the value of classical studies as an instrument of education; it disposes triumphantly of the old cavil with which some used to solace themselves that those who knew Latin and Greek knew nothing besides; we see from the marks here that the best

classical scholars are generally very distinguished in English composition and literature, and have obtained high consideration for their knowledge of modern languages. The general proficiency of the few mathematicians who presented themselves in this Examination is quite as striking. If we examine a school we find the same thing, viz. that the boys who get prizes in Classics and Mathematics obtain them in modern languages and English subjects also, and when there is a purely English branch attached to a classical school, we find that the boys who learn Latin and Greek, beat in their own subjects such as History, Geography, &c. the boys who devote their whole time to these matters.

Indeed the result of the more philosophical views as to education which have arisen from the consideration which the subject has lately received, has been most fully to establish the superiority of these subjects for an educational basis, and to shew that so far from their excluding other attainments, the having these affords a strong presumption that their possessor has many besides. The outcry against these studies has now dwindled to an occasional murmur from some stranded representative of that immediate-utility school which is now fast ebbing out; but by directing inquiry it has done this good, that the place which these studies formerly held in English education by prescription only, they now occupy on the surer ground of their well understood advantages.

H. L.

IV. ON THE EXAMINATION OF SCHOOLS BY THE UNIVERSITY.

FOR many years past it has been the custom of most of the old Public Schools in this country to invite distinguished scholars from one or other of the Universities to conduct their annual Examinations.

It seems exceedingly desirable that this excellent practice should be adopted by all Schools. But it is evidently impossible that the practice can become universal without some organised system for the appointment of Examiners. Old foundations indeed can and probably always will be able to induce competent men to undertake the office. Their funds enable them to offer a handsome fee, and the position they deservedly hold in the country is such that it is thought a compliment to be asked to visit them in that capacity. In Proprietary Schools also it frequently happens that the services of a friend of some member of the Committee or of one of the masters can be obtained. Sometimes a neighbouring clergyman is able and willing to take the task upon himself. But it involves considerable labour and responsibility, and is not accompanied with the sort of *éclat* that belongs to the same office at Harrow or Rugby. Hence, notwithstanding these resources, there is often great difficulty in procuring the assistance of a stranger.

In private Schools the difficulty is proportionally greater. And however willing the masters may be to submit their pupils to the ordeal of such a scrutiny, it is on the face of the matter as a general rule simply impossible. To say nothing of the fact that no one's private connexion, however large, could supply men year after year whose attainments fitted them to ascertain and report upon the condition of a school, reasons will at once suggest themselves why examinations, conducted by gentlemen invited by the Head Master and responsible solely to him, will not be very searching or productive of great advantage to the boys.

Is it not possible, however, to organise a system by which an opportunity may be given to Schools of obtaining the services of competent Examiners? Cannot the University help

us in this matter? The plan that suggests itself to me is somewhat as follows. That it be made known that the Syndicate for conducting local Examinations are ready to receive applications for Examiners of Schools. That a Head Master who wishes his boys to be examined under the auspices of the University should make formal application to the Syndicate a reasonable time, say two months, before the Examination is to take place, stating at the same time whether he desires it to be in Classics or Mathematics or both. That a Report of the result be furnished to the Syndicate, copies of which shall be sent to the Committee or Trustees (if any), and to the Head Master of the School. That these Reports be either published yearly, or kept in some public place, as the University Library, where they may be readily seen. That no Report be received by the Syndicate which is not founded on an examination of the whole School.

The question that will at once arise is, where will Examiners be found? But the real difficulty appears to be absence of system, and not any lack of men duly qualified as well as willing to undertake the duty. There must be many Members of the Senate, resident in the University, who would not be indisposed to do it under proper conditions. Many too, living in different parts of the country, who would not unwillingly return to their old labours for a few days now and then. But no man can be expected to do so at the request of people of whom he knows nothing; if again he happen to live in the neighbourhood of a School, or to be a friend of some of the Governing Body, there may be very good reasons why he should decline the seat of judgment. For if he must address his Report to people among whom he lives, it is far from easy to mete out due measure of praise and blame without giving offence. And there are other inducements to hold aloof. But it is quite another thing to appear as the accredited envoy of the University, and make a Report to the Syndicate. The position is more dignified, more unrestrained by personal considerations, and therefore more attractive in itself, as well as more likely both to ensure the satisfaction of the parties who invite the Examiner, and to gain the confidence of the public. Nor I conceive would there be any objection to the Master of a School presenting the name of any gentleman able and willing to undertake the business at the same time that he makes the application, in case the Syndicate should think fit to appoint him. Of course he must be a member of the Senate, and it should be most clearly understood that the Syndicate have full liberty to accept the suggestion or name

some one else without being expected to render any reasons. The point is not that Examiners should be total strangers, but that there should be some third party, a perfectly competent and disinterested authority, to whom their account is to be rendered.

I think it will be seen by Governors and Committees, as well as Head Masters of Schools, that this plan is of great value. It will supply them with a guarantee of efficiency far better calculated to gain public confidence than any they can at present offer. And to private Schools it presents what really is to them the one thing needful. At this time it must be owned every man's hand is against them. How far they deserve this general reprobation I cannot say. Many I know to be utterly unworthy of confidence, in fact a public pest, but on the other hand I also know many private schoolmasters to be most worthy men and able teachers. At present these have nothing to rely upon but the uncertain discernment of parents. Regular and well-conducted Examinations with published Reports would soon separate the wheat from the tares. And whatever raises the character and promotes the efficiency of private Schools must be accounted a public benefit; for good or bad, it is clear that it will be a long time before we can do without them.

Neither will this plan be unfruitful of good to the Universities themselves. It will familiarise them with the views and wants in regard to education of a class of people with whom they have hitherto scarcely come in contact. Many large schools rarely or never send a pupil to the University. This I hold to be a bad thing. The presence of a few boys, even no more than one or two, who aspire to the highest education that can be got, raises the level of teaching throughout the school. And it might not seldom happen that the friends of a promising boy would be encouraged to change his destination from commercial or official life to the church or the bar. Many fathers, whose means and position in the world would fully justify their sending their sons to College, forbear to do so from want of confidence in their own judgment and the advice of some one they can trust.

Before concluding this paper it may be well to remark that it is the duty of Examiners not merely to report upon the proficiency of the boys in Latin, Greek, and Mathematics, but to speak particularly of their appearance and conduct, in short, the general tone of the school. On this indeed mainly a favourable or unfavourable judgment ought to be founded. It is true that in a well-taught school a certain standard of

excellence will generally be reached by the majority of boys, and there will probably be some who will rise above it, but if Examiners look to find this in every school on every occasion they will be disappointed. The absence of boys of more than average powers, whose example and influence keeps up their companions to a certain point,—for boys, like hounds, *pack* a good deal—or other accidental circumstances, will sometimes prevent it. In particular this will occur in new schools. It takes a long time to get a good staple. In schools composed chiefly of boys intended for active life it is well-nigh impossible to get it at all. Their stay is so short, coming late and going early, that just when their master is gaining influence over them, and they are beginning to learn something, it is time for them to leave school. If they came young enough one would not care. Something at any rate would be done between eight and fifteen. But as things go now, people often keep their boys in the nursery or at ladies' preparatory schools till eleven or twelve, and then they come bringing nothing with them but refractory and disobedient habits, often, as I know from weary experience, scarcely able to read, much less spell.

The condition "that no Report be received which is not founded on an Examination of the whole School" should be firmly enforced. To see that the little boys and those of inferior ability are well attended to is the very head and front of an Examiner's duty. The mere adjudication of prizes is the most trifling part of it.

It may be taken for granted, it is said, that where the cleverest boys are best taught, there the laglasts will be whipped up most sharply. Still a conscientious man will desire to ascertain for himself how backward the one as well as how forward the other may be, on the same principle as an accurate observer of the atmosphere watches the *minimum* as well as the *maximum* of heat. He will frame his report at least as much on the *data* furnished by boys scantily endowed with the gifts of nature as by their abler companions. And it is satisfactory to have explicit testimony that slow boys are not neglected. For after all there are idle teachers in the world of school-life, and the idlest will take some pains with a quick boy, if for no better reason than that he helps to teach the class.

I will finish this paper by remarking that the opportunity might be taken of obtaining some valuable statistical information. A table might be required of something like the subjoined form :

FORM or CLASS —.

Name.	Age.	German.	French.	Vocal Music.	Drawing.
John Doe	17	Yes	Yes	No	Yes
Richard Roe	15	No	Yes	Yes	No

A list of Latin, Greek, and English books in ordinary use in the class might be appended. The writing-master with the help of one or two boys from each class would do it with very little trouble. The results of these tables would be worth publishing with the Reports.

T. M.

V. CLERICAL EDUCATION.

PROPOSAL FOR A PASS EXAMINATION IN DIVINITY AND MORAL SCIENCE.

It has been long felt that there is a large proportion of those who take the ordinary degree of B.A. with a view of entering Holy Orders, to whom the University might render more assistance with regard to the profession they have in view than it has hitherto done, and now that many changes are in progress in consequence of the new Statutes, it is well that serious attention should be directed to this matter.

The question is a difficult one, because the two main considerations tend in precisely opposite directions. On the one hand it is felt to be very desirable to give some special instruction to this class because there are some branches of their professional studies, Biblical exposition and English composition for instance, in which oral teaching and personal guidance are especially requisite, and because, moreover, many would take a far greater interest in studies bearing on their work in life than in those which seem to be only a prolongation of their scholastic course.

On the other hand, it is most true that it would have a very injurious and depressing effect on the students if they were to receive a purely theological education instead of a liberal one, and be plunged into questions of dogma and doctrine before their minds had been hardened enough to deal with them properly.

It is a most valuable characteristic of our English Church that her clergy are not set apart for their special office till they are full-grown men, that in their youth they engage in the same studies, the same sports and pursuits, as others of the same age, and so bring to the final decision of the question of their profession some experience of the world and some knowledge of themselves. Purely theological seminaries have their value, and may have great value as places of immediate preparation for ordination, but that our clergy should receive from them all the education they get at that time of life when the mind is solidifying would be a monstrous evil; it would tend more than anything to turn our clergy into an ecclesiastical caste, and deprive them of all manly qualities and genial sympathies with their lay brethren. Our forefathers

were wise in this, that they held theology to be the crowning height of a long course of studies not to be approached until men had learnt to walk surely over less difficult ground. Now we find it sometimes made the boast of institutions that they teach their students nothing not necessary for them to know, that is, nothing but what they must pass in to be ordained by the bishop. We find it almost regarded as a grievance that the Evangelists should have written in Greek, or at least that our prelates will not be contented with the English Version of the New Testament.

It is most mischievous for men, bringing with them no distinct conceptions in any branch of learning, and having, therefore, no criterion in their minds by which they can determine whether they thoroughly understand a difficult question or not, to be hurried through a course of theology, and to fancy themselves great divines. Such a training is found to produce inordinate conceit, and this, in the clerical profession, is sure to engender wild doctrine and extravagant pretensions. But the social effects of this early professional segregation in Theological Colleges are even worse than the intellectual ones; narrowmindedness, and class feeling, and the self-complacency arising from the low standard of a confined society, are its deplorable fruits.

It is well then for the University that she is fully alive to the dangers besetting the question upon this side. But it may be possible for students who are not very dull or ill-prepared to compress their general education into the first five terms, and to apply the remaining four,—not indeed to subjects of dogmatic or doctrinal theology,—but to a more systematic training in those portions of divinity which we at present recognize as parts of a general education, and to the acquisition of some knowledge which, valuable to all, will be especially so to the clergy. Now that a Degree can be obtained in nine terms most of our Students will have two years before them, in which to prepare for ordination, and so we should not consider our instruction with a direct reference to the Bishop's examinations, but endeavour to put our young men in the way of pursuing their after-studies by themselves; our business is, in fact, not to sow the soil, but so to dress it as to suit it for the crop which it is intended to bear.

To give the discussion of this matter a practical turn, and to shew the sort of thing intended, it will be well to draw up a rough outline of a scheme for providing an education of the kind we contemplate; it being understood that the details are only introduced to make the outline more intelligible.

First, we must be clear as to the class of men with whom we mean to deal. It appears that at present about 260 men pass the Additional Subjects in the Previous Examination, which are required of Candidates for Honours; of these about 200 eventually take their Degrees in Honours, the remainder turn to the Ordinary Degree, and having already read nearly all the Mathematics requisite, are not fully employed for the rest of their time. The great majority of these are intended for Holy Orders, and would gladly adopt a course of study which bore more particularly on their profession; besides these there are many who could readily pass the additional Examination, and would do so, if it were made, as we intend it should be, a necessary qualification for the proposed clerical course.

Hence we might expect that about half of those who now proceed to the Ordinary B.A. degree, and this the abler half, would select a course such as we shall proceed to describe. It is no part of our plan to deal with the Candidates for Honours, and it is to be hoped that their number would remain undiminished; for by following up a single branch of study far enough to obtain a place in one of the Triposes, they will obtain a better education than we pretend by this Scheme to offer. Neither should we admit the idle or stupid men who can only just get through the ordinary subjects in nine terms, because their presence would injure the character of our Examination.

Before proceeding further we must consider the present Voluntary Theological Examination. This was established as an approximate solution of the difficulty now before us. It was not meant to be a compulsory Examination, but to direct the reading of such of our Students as after leaving us should devote themselves to preparation for Orders, and to afford them the stimulus of a slight honorary distinction; it has now become a Pass examination for which practically the University gives no teaching. It is true that there are the Lectures of the Divinity Professors; but the class we are dealing with do not resort to them to obtain preparation, they attend them in any term when they are tolerably at liberty, with little regard to whether the course is on the subjects for Honours, or for the Pass, or on that of the year in which they mean to present themselves.

Our University career has been thus practically lengthened to four years for the Clergy; and as the custom of resorting to private tuition for preparation for the so-called Voluntary Theological Examination has now become common, the expence of a clerical education as furnished by the University

has been materially increased. To obviate the delay, an Examination at Easter was introduced, the result of which has been that many of those who wish to pass it reside during the Lent Term, reading for it in a hurried way, and under no discipline, because they can remove their names from the College boards. This Examination was meant for those who for some time previous to taking their degrees had occupied themselves with Theological subjects; but as a great many trust entirely for preparation to the intervening period, a serious number of failures, and a vast amount of "cram," and that in a subject where this is an enormous evil, have been the result. Under the new arrangement the Examination which is to take place in the beginning of October will follow just as closely on the Degree in June, and the same evils will arise. Men will require some holiday after their Degree, and they cannot properly prepare themselves in two months; thus they will be forced to wait until the following Easter, and the effect of this system will still be to lengthen our course by a year.

We would commence then by abolishing the Theological Examination as far as the Pass men are concerned, leaving the Theological Honour Tripos as at present. It is true that we thus take away an Examination affecting all, and replace it by a scheme which only provides for a particular class; but it must be recollected that it was never intended that this Examination should be made compulsory at all, and that therefore the Theological Tripos will do for the Honour men all that it was thought advisable to do for them when this examination was introduced. The inferior men who were forced into the Examination caused only inconvenience and scandal. It cannot be said that it is in any way a duty of the University to the Church to provide a general Theological testing Examination. The solemn responsibility of deciding on the fitness for Holy Orders of those who come before them must always rest with the Bishops. This Examination in no wise relieves them of this, and rather hampers than assists them; nothing of the kind exists at Oxford, and no want of it has ever been complained of by our prelates; what they look to the Universities to provide is a liberal education, the professional qualifications of the candidates are for them to judge of. We propose then further that Students having passed both in the general and additional subjects of the Previous Examination should be allowed to obtain the B.A. Degree by an Examination in the following subjects, which should take place towards the close of the Easter term:

1. *The Greek Testament.* Such a portion as the four Gospels, the Acts of the Apostles, and one or more Epistles should be selected, and certain expository and illustrative books should be named—such, for instance, as the Notes on the Parables and Miracles, by the Dean of Westminster, Paley's *Horæ Paulinæ*, and the Life and Works of St Paul, by Messrs Conybeare and Howson—with which the Candidates should be expected to shew an acquaintance as elucidating the text. Some introductory work might be named in addition. The Students should be required to attend the Lectures of a Professor on some part of this subject for one term. Two papers at least would be required to be set in this subject.

2. *The Historical Books of the Old Testament or Ecclesiastical History.* There would hardly be space for both these subjects. If a good Introduction to the Old Testament were published, the first would be preferable. The latter subject, if taken, might either be confined to the History of the Reformation in England, or it might be made a variable subject, and such books selected as a portion of Milman's History of Latin Christianity or Ranke's History of the Popes, or of the Reformation in Germany.

3. *Moral Philosophy.* This subject, which should be made to occupy a considerable space, as being a very important one for our purpose, will perhaps be best studied by reading an historical account of various opinions, and some treatise as well: for instance, the Master of Trinity's editions of Sir James Macintosh's Introduction to Moral Philosophy, and of Butler's Three Sermons on Human Nature.

4. *Rhetoric.* Some instruction in this branch of study, which is now much neglected, would be very valuable, if taken in connection with practice in composition, which should also be afforded; a portion of Whateley's Rhetoric might be the book selected. The Students who select this Course should be put, for one Term, into the hands of one of the Divinity Professors for instruction in Composition. Some general observations on the subject might be given in the shape of a Lecture or two to begin with; and each Student might be required to produce two or three or more short Essays or Sermons during the Term, which he should read to the Professor, or submit to him for his criticism*. The

* The amount of success which has attended the sermon classes established by Mr Franks, to whom the acknowledgments of the University are most justly due, shews that a want of something of this nature is felt by the Undergraduates, and encourages us to hope that a plan like that we have named would be practicable and very beneficial. The staff of Divinity Professors will probably be

personal intercourse between the Divinity Professor and his class which would thus spring up would be most valuable. Something like what is here proposed is done at Oxford.

These subjects we are inclined to think sufficient for four Terms, if the standard required for the Greek Testament subjects be tolerably high. We leave it as an open question, whether these Students should be relieved from obtaining the Professorial Certificate; a knowledge of some Natural Science is most valuable to a Clergyman, but it is very desirable not to overload the Students with subjects or compulsory lectures. No doubt strong claims might be put forward on behalf of many other branches of study; but it must be recollected that we are not pretending to teach our Students all that they ought to know, for this would open to us a range of hopelessly large extent; but it is our business to select what, at their time of life, with a year and a quarter to dispose of, it is most profitable for them to learn.

It is believed that such an education would be truly a liberal one; by which we mean, one that will elevate and improve the man, as distinguished from the special instruction in his calling, which is to enable him to earn his livelihood: at the same time, both the mental culture and the positive knowledge which such a course would yield, would be especially valuable to a Clergyman.

The amount of Mathematics required in the Additional Examination at Little Go is more than an equivalent for that in the ordinary B.A. Examination. Against Hydrostatics, in the latter, there are to be set two books of Euclid in the former; and the papers in Algebra and Mechanics, in the former, are of a higher character than those in the latter.

It would follow, as a corollary to this scheme, that a place in the Theological Tripos should confer a degree on one who had passed the Additional Examination at his "Little-go."

If any plan of this nature should be carried into effect, it would probably happen that some particular Colleges would make it their especial care to provide the best possible instruction in the branches of study comprised in this Examination.

The objection might then occur, that if such a College were to consist mainly of men of this class, all of about the same mental calibre engaged in the same studies, this College would become subject to some of the evils mentioned as belonging to Theological Seminaries. But we should be ready

strengthened by the establishment of a Hulsean Professorship, and two Professors might if necessary join in conducting this course of instruction.

with the reply, that as long as the Colleges have the disposal of their emoluments, there will be in all a considerable number of Candidates for Honours; men of ability who will keep up a certain catholicity in the studies of the place and prevent the evils attendant on a society consisting entirely of men of mediocre intellect; and that the intercourse between the Undergraduates of different Colleges is quite sufficiently free to afford these Students of Divinity the good effect of that mixture with men of other pursuits, which is one of our great advantages. The Theological Seminaries, of which we so much disapprove, have been greatly encouraged, if not altogether called into existence, by the enforcing of our present Theological Examination on all Cambridge Candidates for Orders, and the consequently greater length and difficulty of the road to ordination which the University presents.

It should, however, be observed that the abolition of the present Pass Examination in Theology is by no means an essential part of the scheme here sketched out. The existing system might be left as it is for the present; and as the Bishops would probably admit to their Examinations for Holy Orders those who had obtained their Degree by the course proposed, without their having also passed the Theological Examination, this would be an inducement to many Students to proceed to their B.A. Degree in the way above described.

H. L.

VI. UNIVERSITY EXTENSION.

It is often asserted that the number of students at our Universities is not increasing proportionally to the wealth and population of the country. The friends of the Universities confess the fact and deplore it. Their enemies make it the ground of a charge against them, as if the check which has been put to the increase of students had been caused by some impediment in the Universities themselves. No charge can be more unfounded than this. Those who are acquainted with the Universities and their Colleges must have seen, that they are not only willing but eager to educate; and that they are constantly on the watch to remove any obstacles which may hinder the influx of students, and to hold out increased inducements to the clever and diligent. Corresponding success has not as yet followed our efforts. Causes, which the Universities cannot control, have operated to keep down the number of their students; and those causes are not yet removed.

We may find such causes without searching very deeply. In some degree the effect is due to the great attractions which commercial life offers. Trade and commerce are, in England, high roads to fortune. Their domain, too, has been rapidly extending of late years. Consequently they are absorbing a continually increasing number of the active-minded and intelligent among our youth. And, since for success in them it is necessary that the special training required should be commenced at an early age, the natural result is, that most of the sons of the upper section of our middle class are at once transferred from the school to the office, often with less education than is acquired by the child of the artizan at the National School. It is vain to look for any addition to our students from among those who are intended for business. However much we may reduce our demands on the pupils' time and the parents' pocket we cannot hope to rescue the young clerk from the grasp of the counting-house.

A great cause of the comparative paucity of students at the Universities is the little encouragement given by the government of the country to high education. It has been the custom for the Ministers of the day to fill the government

offices with nominees of their supporters; often when such nominees were totally unfitted for the duties which they were to be called on to fulfil. The department, upon which the new comers were quartered, might report them as incompetent; still the Treasury, through its "Patronage Secretary," would remain inexorable, and might perhaps hint the expediency of not criticizing too closely the quality of the article, which parliamentary necessities had compelled the Ministry to accept. This custom is, happily, now giving way before the pressure of public opinion; and there are good hopes that our statesmen, at least the younger ones, may before long cease to regard the civil service of the country as so much capital to be placed at the disposal of the Ministry of the day, for the purpose of rewarding their partisans or conciliating their opponents. The impetus, which such an honest course on the part of a government, would give to education, cannot well be overrated. The borough politician, who wished to push his son into a government office, would soon learn that it must be done by educating him and so fitting him for the post; and not by tap-room oratory or the exercise of the screw upon a few dependent voters. After a few years the educational tone of the country would be raised, the benefits of the University would be more fully appreciated, and the number of persons anxious to avail themselves of those benefits might then be expected to increase.

Another cause, which has, perhaps, acted to keep down our numbers, is the exaggerated notions which some parents entertain of the expense which must be necessarily incurred by every student. Unacquainted themselves with the prevalent state of things at a University, they draw hasty and erroneous conclusions, as to the expenditure in which undergraduates usually indulge, from the few isolated cases of extravagance, which find their way into the public journals. They do not reflect that it is only the exception which comes under their notice; and that it generally does so, because it is an exception. The greater diffusion of information upon the internal state of our Universities, which is now taking place, must do much to dissipate those false notions and to establish a truer estimate of the cost of a University education. The recent change too at Cambridge, by which the necessary residence for the B.A. degree has been limited to two years and three-quarters, will materially reduce this cost, and will, therefore, put a University education within the reach of a still greater number. In fact no student now need be deterred by the fear of expense.

Again, there have recently sprung up throughout the

country some institutions of a quasi-collegiate character, where great advantages are promised to candidates for holy orders, and where, if common report speaks truly, stupidity is more leniently dealt with than it is at Oxford or Cambridge. To a man unconscious of Greek and somewhat weak in Latin the prospect of easily obtaining holy orders, which these institutions generally hold out, must be very attractive. He finds that success, for the most part, follows the completion of "the course." He hears that "plucking" is rarely indulged in. Consequently he is induced to sacrifice learning to security, and to slip into his profession by the smooth side-path thus opened to him. When he awakes to a consciousness of the mistake which he has committed, in thus depriving himself of all hope of attaining the distinction which the University degree confers, it is too late to remedy his error.

The work, which the Universities have recently undertaken, of testing the quality of the education given by the schools of the country, must, if properly met by the country itself, result in advancing higher education. To that work we may most hopefully look for an extension of the University at home as well as abroad,—in numbers as well as in influence. By means of these examinations each more intelligent boy will be singled out, and so will be stimulated to pursue those studies for which he has proved his aptitude. In the event of great ability being manifested the boy will be encouraged to enter upon a University course, by the reasonable expectation of obtaining some of the rewards, which the Colleges hold out to successful students. And thus we may hope to gather recruits from all classes of the community.

But the advocates of the system of non-gremial examinations, as they are called, must not confine themselves to applauding the step which the Universities have taken. We look to them for aid as well as for approbation. A most effectual way of rendering such aid will be by the establishment of prizes for the most successful examinees at each centre of examination, and also by the institution of exhibitions tenable at either of the Universities, which may thus induce and enable the prizemen to complete the education that they have so successfully begun. An association for collecting funds for such a purpose has already been formed at Brighton, and seems likely to be very successful. If the example thus set be followed by the other centres, a University education will be brought within the reach of every clever boy throughout the kingdom.

It is probable that those, who object to the step which the Universities have taken, as likely to cause the schoolmaster to

cultivate the minds of his more intelligent pupils at the expense of their less gifted fellows, may oppose the proposed plan of exhibitions, as tending still more to develope this special attendance and general neglect. The objection itself is not worth very much; since experience shews that where the teacher is attentive to the more clever boys, the more stupid ones are generally cared for. The examination system may make an idle schoolmaster give to a few boys the attention which, without such a system, they would give to none, but it will scarcely convert attention into neglect. And if it should be found to do so, the remedy is not very difficult. Let the conscientious schoolmaster, who feels that he is discharging his duty to all his pupils, and suspects that his neighbour is more successful with his prize pupils in consequence of being less scrupulous, invite the Universities to enter upon the function of School Inspection. Such a request from a few schoolmasters, who wished to place their schools under University inspection, would probably induce the University to undertake the charge. This inspection would lead to the general character and tone of the school being satisfactorily tested, and to due credit being given to the attentive and conscientious teacher, the less brilliant elements of whose character would thus receive their just reward; while the approval of the University Inspector would reassure parents, even though their sons, through want of ability, had failed in obtaining the certificate which the University offers to the clever and industrious. A triennial inspection of each school would probably be sufficient. It is unnecessary to dilate on the advantages which would accrue to the public and the schoolmasters from such a system. One only need be mentioned. What could be more advantageous to the efficient schoolmaster than to be able to announce to the parents of his pupils, that not only was his successful training of the more clever boys proved by their success at the non-gremial examinations, but that his attention to the interests of the less intelligent was witnessed to in the report of an Inspector, selected and commissioned by the University for that purpose? and what could be more satisfactory to the parent than such an announcement?

The Students of Law and Medicine form another class of persons who, in consequence of the recent changes, may be expected to avail themselves of the benefit of a University education. Such persons may, as has been mentioned, obtain the B.A. degree in two years and three-quarters. The Incorporated Law Society remits two years from the period of the Articles of a Solicitor's pupil, if that pupil have taken a degree at the University. Consequently the young man, who is

going into a Solicitor's office, will lose no time by coming to the University, and will gain enormously in general knowledge, social standing, and connexion. By entering at the age of 17, he may take his degree before he is 20, and will thus gain these advantages at a time of life when he would otherwise be a mere copying clerk in the office of his principal.

At present the number of Medical Students at the Universities is small, in spite of the high value which has always been placed on the University degrees in Medicine. Yet as the time of study has been shortened and the expense diminished, this high value ought to have some weight with medical students who wish to take a foremost rank in their profession. The subject of medical education in general as well as of the peculiar advantages which Cambridge holds out to medical students is, however, too large to be discussed in the present paper. It can be but thus hastily glanced at.

One point more. At present the aid which the Colleges at Cambridge afford to students, in Scholarships and Exhibitions, is considerable. It is probable too that the labours of the Cambridge University Commissioners will result in largely increasing this aid. Consequently any Student of ability and industry may fairly reckon upon obtaining some pecuniary assistance from his College. In fact, there will be no institutions in England at which clever men may obtain education at so small a cost.

A consideration of the points, suggested in the foregoing remarks, will conduce to the formation of a juster estimate of the causes which have operated to hinder the growth of the Universities; and will shew that so far from blame in the matter being attributable to those institutions themselves, they should receive credit for endeavours to further the education of the country and to extend their advantages as widely as possible. Whether our endeavours shall be successful or not, depends chiefly upon the country itself. We have opened the path; others must send the travellers.

W. M. C.

VII. UNIVERSITY INTELLIGENCE.

THE MEETING OF THE GOVERNING BODIES. THE COLLEGES AND THE COMMISSIONERS.

BEFORE entering upon any account of the proceedings of the meeting of the Governing Bodies of the Colleges on the 26th of October last, we must review the state of affairs which rendered such a demonstration necessary.

The Act of Parliament by which the Commissioners were appointed gave the Colleges power to frame Statutes up to January 1st, 1858, and enacted that if by that day these powers "shall not be exercised by any College, or not to such extent as the Commissioners may deem expedient; and no Statute for effecting the objects of such powers, or no Statute which the Commissioners may deem sufficient for that purpose, shall be submitted by the Governing Body of such College, or the major part thereof, to the Commissioners, and approved of by them," then it should be lawful for the Commissioners to frame such Statutes as should appear to them to be expedient to effect certain objects mentioned. It was further enacted that these Statutes should take effect, unless objected to by two-thirds of the Governing Body of such College. Many Colleges framed Statutes before the appointed time, and sent them to the Commissioners for approval. Meanwhile in June, 1857, the Commissioners sent to all the Colleges a paper of Provisions which they conceived to be generally applicable to all Colleges.

These Provisions were not in accordance with the Recommendations of the Royal Commissioners, which were based on a great mass of evidence, and embodied in their Report, which was presented to Parliament in the year 1852. Objections to these propositions were transmitted to the Commissioners by several of the Colleges; but in the great majority of instances, if not in all, no notice beyond a mere acknowledgment was taken either of these or of the new Statutes which had in many cases been transmitted by the Colleges, until the end of December, 1857. At this time a circular was sent round to the Colleges to the effect that the Commissioners did not approve of the Statutes submitted to them. After the 1st of January, 1858, the Commissioners began to exercise the powers

granted to them in the clause to which we have referred, and sent, in the course of Easter Term last, Drafts of Statutes to Trinity College and St John's College which embodied the provisions which had met with so little favour. Inasmuch as some of the principal features of the scheme proposed by the Commissioners shewed that it was their intention to apply the same principles to the Colleges generally; the several Governing Bodies found themselves driven to adopt some means of strengthening each other by a common expression of opinion.

A requisition for a Meeting to consider those points in these Statutes, which seemed to be intended for general application, was drawn up in July last, and presented to the Vice-Chancellor. Such a Meeting was in consequence called on the 26th of October in the Arts' School, and was very numerously attended both by resident and non-resident Fellows.

The chair was taken by the Master of St Catharine's, not, as he stated, in his capacity of Vice-Chancellor, but as the Head of one of the Governing Bodies; it was owing to the admirable judgment of the Chairman, and his readiness in resolving the points referred to him, that the general result of this Meeting was so satisfactory.

The first Resolution was moved by the Master of Trinity College, and seconded by Professor Adams of Pembroke College. It was to this effect:

"That the system of electing to vacant Fellowships (with occasional exceptions from among the members of each College) having confessedly worked in a satisfactory manner, it is inexpedient that the proposition of the Cambridge University Commissioners for opening the Fellowships in every College to competition to all graduates in the University should be adopted."

The following Amendment was moved by Mr Phear of Clare College, and seconded by Mr Liveing of St John's College:

"That this meeting disapproves of the proposed statutes by which each College is required to institute a special Examination for Fellowships, and to elect mainly according to the result of such Examination, but desires to see all statutable restrictions on election for Fellowships removed, and the practice of opening Fellowships to all Colleges further extended."

This point of disposing of the Fellowships by special College Examinations, was among the provisions which the Commissioners had proposed for general adoption, and it formed the main feature of their scheme on this head. As those who put forward the amendment joined in condemning this proposal, and the supporters of the resolution did not appear to wish any College to be restricted to its own body in

the choice of Fellows, there was no difference between the parties on the gist of the matter. And so, after the mover and seconder of the Resolution had touched briefly on the arguments on their side implying that they supposed them to be familiar to all present, and the Amendment had been proposed, the field of discussion was reduced to very narrow limits. Mr Phear offered to withdraw his amendment, if the preamble to the Resolution, referring to the present system and which it was contended upheld the restriction of the Trinity Fellowships to the Scholars were also withdrawn. The mover of the Resolution having declined to do so, the Amendment and Resolution were put, and the latter was carried by a very large majority.

The next Resolution which was moved by the Master of St John's College, and seconded by Professor Sedgwick, was

"That it is inexpedient that the proposition of the Cambridge University Commissioners, providing that every Fellow shall vacate his Fellowship at the end of ten years after attaining the full standing of M.A., except in certain specific cases, should be adopted."

Mr Davies of Trinity College said, that he had intended to move an Amendment in these terms:

"That this meeting, while disapproving of some points in the statutes proposed by the Commissioners concerning the tenure of Fellowships, is not prepared to oppose every scheme which involves the principle of terminable Fellowships."

But that he forbore to do so on the understanding that the Resolution only condemned the particular scheme of the Commissioners.

The Amendment was however afterwards moved by Mr Roby of St John's College, and seconded by Mr Besant of St John's College, and withdrawn by consent on the understanding expressed by Mr Davies.

Nearly four hours were occupied in the discussion of these Resolutions, which were those which excited the most general interest, and after they were passed a large number of persons withdrew, and the attendance grew gradually thinner as the business advanced. A motion of adjournment was made at this period, but was not carried.

Mr Todhunter of St John's College moved the following Resolution, which was seconded by the Master of Jesus College:

"That any tax upon the distributable income of the Colleges for University purposes as proposed by the University Commissioners would be highly objectionable."

In the discussion which ensued, the Masters of Trinity and St John's Colleges and of Trinity Hall, Mr Martin of

Trinity College, Mr Liveing, Mr Roby, and Mr Besant of St John's College, and many others, expressed themselves in favour of contributions being made by the Colleges for University purposes, although in many cases objections were made to the plan proposed (*viz.* that each College should contribute 5 per cent. of its divisible revenues), more particularly on the point of there being no provision for giving those who contributed the funds any control over the application of them. Mr Champion of Queens' College objected to the principle of the scheme, and maintained the practicability of raising the funds required in another way. It was suggested in the course of the discussion, that as the matter bore in a different manner upon different Colleges, it should be left to the separate bodies to deal with, and that the meeting should abstain from expressing any opinion on the point; indeed there seemed at one moment to be a feeling in favour of the withdrawal of the Resolution; it was however put and carried.

It was then moved by Mr T. T. Perowne of Corpus Christi College, and seconded by Mr G. Williams of King's College,

“That this meeting, having regard to certain proposals of the Commissioners affecting the religious character of the Colleges, earnestly deprecates any measures which would tend to impair the existing connexion between the Colleges and the Church of England.”

It was pointed out that the provision in the draft statutes, by which any undergraduate stating himself not to be a member of the Church of England would obtain a statutable exemption from attending the College Chapel, was that especially referred to. It was felt by many that the case of dissenters might safely be left, with other matters of discipline, to the College authorities, who would not be likely to deal unreasonably with dissenters whom they had admitted, and that practical evils would result from the presence of such a clause. The Resolution was carried unanimously.

It was then resolved to request the Vice-Chancellor to transmit copies of the Resolutions to the Commissioners; and in conclusion, a vote of thanks to the Chairman for the admirable manner in which he had presided over the meeting was carried with the most warm and general applause.

In this brief account of this important meeting we have not attempted to give any idea of the speeches. The reports of them that have been published are so meagre and imperfect that they convey a very incorrect impression of what took place.

The proposals of the Commissioners with respect to the

mode of electing to Fellowships, and the limitation of the term of tenure, had been so fully discussed both in print and by the several bodies, that the speakers took it for granted that all present were in possession of the principal arguments on both sides.

The most striking feature of the discussion was the general moderation observed in speaking of the proceedings of the Commissioners. It was generally felt that the occasion was a serious one, that it was intended to be productive of practical results, and that it was the duty of all rather to assuage than increase the irritation, which had been caused, partly, perhaps, by the tone of some communications, but more from the want of conversance with the present state of the University, which the Commissioners are thought to have shewn.

A most satisfactory result of this meeting was the discovery which all parties made, that they were much nearer together than they had fancied, indeed when the little misunderstandings of what one and the other meant had been cleared away, it was found that a broad space was laid open on which all could stand alike. This might indeed have been hoped and expected when all parties had in view the same object, the increasing of the efficiency of the University in the country, and the extension of its connexion. All interests existing in 1856 are protected by the Act of Parliament, and the Commissioners propose to widen the range of protection, so that no individual interests are involved, and no one can possibly impute selfish motives to one party or the other.

The general results to which the proceedings at this meeting pointed were, the removal of all restrictions on the election of Fellows, leaving each College at liberty to use its discretion as to the mode of selection, and the leaving of a considerable variety in the mode of tenure of the fellowships.

This difficult question of tenure is one on which much thought has been expended here; and the plan of uniform terminability proposed by the Commissioners is not even an approximate solution. Besides its other defects, it would, as the Master of St John's observed, put us at a great disadvantage in comparison with Oxford in point of attraction to the abler men, because there the old tenure has been maintained.

In the death of the late Dean of Ely, whom all join in lamenting, the Commissioners have lost one of the very few of their number who had ever had any practical knowledge of College work. It appears not as yet to have been found possible to supply his place by one who should possess this qualification.

This is unfortunate, because the Commissioners wishing, as we believe, to bring about the same result as we all desire, could hardly have found themselves without a thorough supporter on their main propositions, if they had had amongst them some who had lately lived and worked with us—who had been familiar with the many changes which the last ten years have witnessed in our system, and with the phases through which the opinion of practical men has passed on University questions.

Improvements and operations have, to some extent, been paralyzed, since the appointment of the Commission placed the University in a position of uncertain expectation. Seeing then the quantity of work which the Commissioners have before them, and the small proportion of them who can spare much time or attention to the matter, we feel that it would contribute much to the speedy termination of this condition if an additional Secretary could be appointed, thus raising the working staff to the strength thought requisite in the case of Oxford. Such an addition might be made the means of affording the Commissioners that information which they cannot be expected to possess; and the occurrence of those marks of imperfect apprehension of our case which have been sometimes apparent in their communications,—producing much the same impression here as the directions of a board of Admiralty drawn out by a landsman would do on a sea-captain,—would thus be obviated, and that confidence and good feeling between the Colleges and the Commissioners, which we are all so anxious to bring about, would probably soon be established, with the most happy results to the public and the University.

THE RECENT CHANGES IN THE MODE OF PROCEEDING TO DEGREES IN ARTS.

By the new Statutes which received the assent of her Majesty in Council in August last, it is made necessary to reside during at least two-thirds of any term in order to keep it, and some changes have been made in the time of beginning and ending of the Michaelmas and Easter Terms. The former now begins on the 1st of October, and ends on the 16th of December: the latter begins on the Friday after Easter Day, and lasts until the Friday after the *Magna Comitia*, which are held on the last Tuesday but one in June.

Nine terms of residence are required for the degree of B.A.: it makes no difference in the number requisite whether a person commences residence in the October term or in any other term—thus the distinction of “Bye-Term men” no

longer exists, and there is no advantage in being entered in Term time.

In consequence of these alterations, changes have been made in the times of Examination for the B.A. degree. After January next, there will no longer be an Examination for the Ordinary Degree at that time of the year.

There will be in every term an Examination for the Ordinary B.A. degree on the Thursday before the end of the first two-thirds of the term. It is expected that the great majority of Candidates will present themselves at the Examination in the Easter Term, and at that only will those approved be arranged in four Classes.

No alteration has been made in the times at which the Examinations for Honors are held. The Mathematical and Classical Triposes take place as hitherto in January and February respectively. The effect of these regulations is, that a person commencing residence in October 1858, should present himself for the Previous Examination ("Little Go") in the Lent Term of 1860, and might take his Ordinary Degree in the Easter Term of 1861.

If he wished to be a candidate for Honors, he would have to wait until the beginning of 1862, though he would not be obliged to reside after he had kept nine terms. Hence it follows that a person intending to present himself for Honors would obtain his degree in the shortest time by commencing residence at the beginning of the Lent Term: he would have to present himself for the Previous Examination with those who came into residence in the previous Michaelmas Term.

It may be mentioned that all candidates for Honors in the Mathematical, Classical, and Law Triposes must pass an *Additional Examination*, at the "Little Go," in Euclid, Bks. 4 and 6; Algebra, including Quadratic Equations and Ratio and Proportion; and Elementary Mechanics.

A person commencing residence in the Easter Term would be examined for his "Little Go" in his second Lent Term; he might take his ordinary B.A. degree after nine terms' residence: if he wished to take Honors he would, as hitherto, be allowed a certain choice as to the time of presenting himself.

Bachelors of Arts upon admission become merely Bachelors designate, and are not entitled to the full privileges of their degree until their inauguration, which takes place in every year, on the second day of the Easter Term, when their names will be arranged in order as follows:

Wranglers.

The first class of the Classical Tripos.

Senior Optimes.

The second class of the Classical Tripos.

Junior Optimes.

The third class of the Classical Tripos.

The classes for Ordinary Degrees in June in their order.

Students admitted at other times.

It will be observed that thus those who take Ordinary Degrees in June are inferior in point of seniority to those who take Honors in the following January.

The degree of M.A. can be taken after three years from inauguration.

Important changes have also been made with respect to the mode of obtaining a vote in the Senate.

A University Register of Voters will henceforth be kept, upon which members of the Senate may be enrolled without necessarily retaining their names on the boards of any College, on the payment of an annual sum: but those whose names are on, or may hereafter be placed upon, the boards of a College, will have the same privileges in respect of voting as heretofore, the necessary payments being made in their behalf by the College.

Persons who have been created, and have removed their names from the boards of their College, may either replace them or put them directly on the Register upon the payment of a small sum for every year during which their names have been off the boards. They will thus obtain a vote in the Senate without any further residence.

Persons who have not yet completed their Degrees by creation, may be created without personal attendance at the *magna comitia* of 1859, or any subsequent year, on application being made to the Registry for that purpose.

THE RECENT CHANGES WITH RESPECT TO PROCEEDING TO DEGREES IN LAW.

THE following paper embodying the results of the late regulations with regard to Law Degrees and Law Studies has been lately put forth.

1. Every Candidate for a Law degree must be in his ninth term's residence before he can present himself for the final Examination.

2. Every Candidate for a Law degree must first pass the general Previous Examination; and in order to be a Candidate for Honors in Law, he must also pass in the Additional Subjects required of all Candidates for Honors.

3. Every Candidate for a Law degree, not being previously a Bachelor of Arts, must at the time of proceeding to

his degree produce a certificate of having attended the Lectures of the Regius Professor of Laws during two terms at least, or the Lectures of the Regius Professor of Law during one term, and the Lectures of the Downing Professor of Law during one term, at some time after three terms' residence.

4. If not a Candidate for Honors, he must also produce the Professorial Certificate required of all students not Candidates for Honors.

5. The examinations for the Law degree are held towards the close of the Easter term, and on the day immediately succeeding the last day of Michaelmas term; at the *latter* only can *Honors* be obtained.

6. In addition to the examinations in writing at each of the above periods, Students in Law are examined *vivâ voce*, according to the following scheme:

1st. The exercise shall be kept by the Candidates for Honors in the Michaelmas term immediately preceding the Examination in December.

2ndly. The subject for the English Thesis shall be the same for all the Candidates, and shall be selected by the Regius Professor of Laws, bearing upon the history of the Roman or English Law or upon General Jurisprudence.

3rdly. The subject so selected shall be announced during the Easter term preceding the time for holding the General Examination.

4thly. Each Candidate may select for himself the particular question or subject for the *vivâ voce* discussion, which question or subject shall be of a *more technical* nature than the subject for a thesis.

5thly. The question so selected must be sent to the Regius Professor of Laws for his approval in the course of the term preceding that in which the exercise is to be kept.

6thly. As regards the Students *not Candidates for Honors* their *vivâ voce* examination shall be held immediately after the written one, in two out of the list of subjects prescribed for that course, one of which shall be the Roman Law (of which translation of passages from the Institutes of Justinian shall form part), the other English Law as contained in those portions of Warren's Blackstone, that may be prescribed for the examination.

7. The first degree to which Students in Law will be admitted is that of LL.B., the second is that of Master of Laws, the *status* of which is the same as that of Master of Arts in respect of voting in the Senate and all other privileges.

8. The degree of LL.B. can be taken at any Congregation, but persons admitted on the last Saturday in January, or on the Saturday before the Commencement in June, will avoid the payment of additional fees.

9. Students in Law who have kept their exercises before the 1st of January, 1858, are at once admissible without further examination to the degree of LL.B. on providing themselves with the usual Certificate of having performed their exercises, for which they should apply to the Regius Professor of Laws.

N. B. The Professorial Certificate required by the Grace of the Senate of October 31, 1848, must be presented at the time of taking the degree, by all such Students, if their names have not appeared in the First Class of the Civil Law Classes.

10. Bachelors of Laws who were admitted to their degree prior to the 1st of January, 1858, can proceed to the degree of Master of Laws (whether they have retained their names on the Boards of a College or not), at the expiration of three years from the date of their admission.

11. Bachelors of Laws admitted subsequent to the 1st of January, 1858, are admissible to the degree of Master of Laws at the expiration of three years from the date of their inauguration as LL.B., which takes place on the second day of the Easter Term next after their admission as Bachelors designate of Laws.

12. Any Bachelor of Arts can be admitted to the degree of LL.B., or if of three years' standing from his inauguration as B.A., to the degree of LL.M. on passing the examination for the ordinary Law degree.

13. Any Master of Arts can proceed to the degree of Master of Laws on passing the examinations for the ordinary Law degrees.

14. Bachelors of Laws whose degree is of prior date to August 1, 1858, may proceed to the degree of Doctor of Laws when they are of six years' standing on the performance of one exercise in English.

15. Masters of Laws will be enabled to proceed to the degree of Doctor of Laws at the expiration of five years from the date of their creation on the performance of one exercise in English.

16. Bachelors of Arts *who have graduated in Honors* may present themselves as Candidates for Honors in Law in the December Examination of the year subsequent to that in which they would have had to present themselves if they had graduated directly in Law, and may take the degree of LL.B. on passing the examination without attending Professors' Lectures.

Gentlemen wishing to proceed in Law should communicate with the Regius Professor at Trinity Hall, as soon as possible after the completion of their third term's residence.

Information respecting the times of Examination and the Subjects will be found in the *Cambridge Calendar*.

EXAMINATION OF STUDENTS NOT MEMBERS OF THE UNIVERSITY.

REGULATIONS for the Year 1858 concerning the Examination of
STUDENTS who are not Members of the UNIVERSITY.

There will be two Examinations, commencing on Tuesday, December 14, 1858; one for Students who are under 16 years of age, and the other for Students who are under 18 years of age.

Students will be examined in such places as the Syndics, appointed by the University, may determine.

After each Examination the names of the Students who pass with credit will be placed alphabetically in three honor classes, and the names of those who pass to the satisfaction of the Examiners, yet not so as to deserve honors, will be placed alphabetically in a fourth class. After the name of every Student will be added his place of residence, and the school (if any) from which he comes to attend the Examination.

In determining the classes, account will be taken of every part of the Examination; but no credit will be given for knowledge in any subject, unless the Student shows enough to satisfy the Examiners in that subject. Regard will be paid to the handwriting and spelling throughout the Examinations.

The Students who pass with credit, or satisfy the Examiners, will also be entitled to receive Certificates to that effect. Every Certificate will specify the subjects in which the Student has passed with credit, or satisfied the Examiners, and the class in which his name is placed.

Every one, admitted to Examination, will be required to pay a fee of twenty shillings.

Examination of Students who are under 16 years of age.

Students must be under 16 years of age on the day when the Examination begins.

PART I. PRELIMINARY.

Every Student will be required to satisfy the Examiners in

1. Reading aloud a passage from some standard English prose author.—2. Writing from dictation.—3. The analysis and parsing of a passage from some standard English author.—4. The first four rules of Arithmetic, simple and compound, vulgar fractions, Practice, and the Rule of Three.—5. Geography: Every Student will be required to answer questions on the subject, and to draw from memory an outline map showing the coast-line, the chief ranges of mountains, and the chief rivers of one of the countries in the following list: England, Scotland, Ireland, Europe, Asia, Africa, North America, South America, Australasia.—6. The outlines of English History since the Conquest; that is, the succession of Sovereigns, the chief events, and some account of the leading men in each reign.

PART II.

The Examination will comprise the subjects mentioned in the following ten Sections: and every Student will be required to satisfy the Examiners in three of those Sections at least, but no one will be examined in more than six. Section I. must be one of the three, unless the parents or guardians of the Student object to his examination in that Section.

1. Religious knowledge: Questions will be set on (a) The two Books of Samuel, the Gospel of St Matthew, and the Acts of the Apostles: (b) The Church Catechism: (c) Whately's *Easy Lessons on Christian Evidences*. Every Student, who is examined in this section, will be required to satisfy the Examiners in the subject marked (a), and in one at least of the subjects marked (b) and (c).

2. English: Every Student, who is examined in this section, will be required to write an original English composition.—He will also be examined in English History, from the battle of Bosworth Field to the Restoration: Physical, Political and Commercial Geography: Trench, *On the Study of Words*.

3. Latin: Passages will be given from Sallust's *Bellum Catilinarium* and Virgil's *Aeneid*, Book VI. for translation into English, with questions on the parsing and the historical and geographical allusions: Also an easy passage for translation from some other Latin author: And a passage of English, with Latin words supplied, for translation into Latin.

4. Greek: Passages will be given from Xenophon's *Anabasis*, Book II., and Homer's *Iliad*, Book VI., for translation into English, with questions on the parsing and the historical and geographical allusions: Also an easy passage for translation from some other Greek author.

5. French: Passages will be given from Voltaire's *Charles XII.*, for translation into English, with questions on the parsing and the historical and geographical allusions: Also a passage from some modern French author for translation into English: And easy English sentences for translation into French.

6. German: Passages will be given from Lessing's *Fables*, Prose and Verse, for translation into English, with questions on the parsing: Also a passage from some modern German author for translation into English: And easy English sentences for translation into German.

7. Pure Mathematics: Every Student, who is examined in this section, will be required to satisfy the Examiners in Euclid, Books 1 and 2, Arithmetic, and Algebra to simple Equations inclusive.—Credit will be given for a knowledge of Book-keeping.—Questions will also be set in Euclid, Books 3, 4 and 6, in Quadratic Equations, Progressions, Proportion, Plane Trigonometry not beyond the solution of Triangles, the use of Logarithms and Mensuration.

8. The elementary principles of Mechanics and Hydrostatics: Questions will be set, embracing the proofs of the leading Propo-

sitions.—In Mechanics they will not extend beyond the parallelogram of forces, the centre of gravity, and the mechanical powers.—In Hydrostatics they will not extend beyond the transmission of fluid pressure, the equilibrium of inelastic fluids and of floating bodies, and the description of the steam-engine and of simple hydraulic machines.—A fair knowledge of Mechanics will enable a Student to pass in this section.

9. Chemistry: Questions will be set on the elementary facts of Chemistry, and the laws of chemical combination.—Solutions will be given to be tested, containing not more than one acid and one base.

10. Zoology and Botany: Elementary questions will be set on the description and classification of Animals, their habits and geographical distribution; and on the mercantile and industrial uses of animal products: Also on the description and classification of Plants, their uses and geographical distribution: British plants and parts of plants will be given for description.

PART III.

Students may also offer themselves for Examination in—1. Geometrical and Mechanical Drawing.—2. Drawing from the Flat, from Models, from Memory, and in Perspective.—3. The Grammar of Music.

Examination of Students who are under 18 years of age.

Students must be under 18 years of age on the day when the Examination begins.

PART I. PRELIMINARY.

Every Student will be required to satisfy the Examiners in—
1. Reading aloud a passage from some standard English poet.—
2. Writing from dictation.—3. Analysis of English sentences and parsing.—4. Writing a short English composition.—5. The principles and practice of Arithmetic.—6. Geography: Every Student will be required to answer questions on the subject and to draw from memory an outline map of some country in Europe, showing the boundary lines, the chief ranges of mountains, the chief rivers, and the chief towns.—7. The outlines of English History; that is, the succession of Sovereigns, the chief events, and some account of the leading men in each reign.

PART II.

The Examination will comprise the subjects mentioned in the following eight sections; and every Student will be required to satisfy the Examiners in three at least of the sections marked A, B, C, D, E, F; or in two of them, and in one of the sections marked G, H: but no one will be examined in more than five. Section A must be taken by every Student, unless his parents or guardians object to his examination in that section.

SECTION A.

Religious knowledge: the Examination will consist of questions in—1. The Historical Scriptures of the Old Testament to the death of Solomon.—The Gospel of St Luke and the Acts of the Apostles: credit will be given for a knowledge of the original Greek.—2. The Morning and Evening Services in the Book of Common Prayer; and the Apostles' Creed.—3. Paley's *Horæ Paulinæ*.—Every Student, who is examined in this section, will be required to satisfy the Examiners in the subject marked 1, and in one at least of the subjects marked 2 and 3.

SECTION B.

1. English History, from the battle of Bosworth Field to the Restoration; and the outlines of English Literature during the same period.—2. Shakspeare's *Julius Cæsar* (Craik's edition).—3. The outlines of Political Economy and English Law: The examination will not extend beyond the *subjects* treated of in the first book of Smith's *Wealth of Nations*, and the first volume of Blackstone's *Commentaries*.—4. Physical, Political, and Commercial Geography.—A fair knowledge of one of these four divisions will enable a Student to pass in this section.

SECTION C.

1. Latin: Passages will be given from Livy, Book XXI., and Horace, *Odes*, Book III., for translation into English, with questions on the historical and geographical allusions, and on Grammar: Also passages for translation from some other Latin authors: And a passage of English for translation into Latin.

2. Greek: Passages will be given from the *Olynthiacs* of Demosthenes, and the *Alcestis* of Euripides, for translation into English, with questions on the historical and geographical allusions, and on Grammar: Also passages for translation from some other Greek authors.

3. French: Passages will be given from La Bruyère's *Characters*, and Molière's *Misanthrope*, for translation into English, with questions on Grammar: Also passages from some other French authors for translation into English: And a passage of English for translation into French.

4. German: Passages will be given from Schiller's *History of the revolt of the Netherlands*, and Goethe's *Hermann and Dorothea*, for translation into English, with questions on the historical and geographical allusions, and on Grammar: Also passages from some other German authors for translation into English: And a passage of English for translation into German.—A fair knowledge of one of these four languages will enable a Student to pass in this section.

SECTION D.

Every student, who is examined in this Section, will be required to satisfy the Examiners in Euclid, Books I., II., III., IV., VI. and XI. to Prop. 21, inclusive. Arithmetic and Algebra.

Questions will also be set in the following subjects:

Plane Trigonometry, including Land-surveying.—The simpler properties of the Conic Sections.—The elementary parts of Statics, including the equilibrium of forces acting in one plane, the laws of friction, the conditions of stable and unstable equilibrium, and the principle of virtual velocities.—The elementary parts of Dynamics, namely, the doctrines of uniform and uniformly accelerated motion, of projectiles and collision.—The elements of Mechanism.—The elementary parts of Hydrostatics, namely, the pressure of elastic and inelastic fluids, specific gravities, floating bodies, and the construction and use of the more simple instruments and machines.—The elementary parts of Optics, namely, the laws of reflection and refraction of rays at plane and spherical surfaces (not including aberrations), lenses, the phenomena of vision, the eye, microscopes, and telescopes.—The elementary parts of Astronomy, so far as they are necessary for the explanation of the more simple phenomena, together with descriptions of the essential instruments of an Observatory; and Nautical Astronomy.

SECTION E.

1. Chemistry: Questions will be set on the facts and general principles of Chemical science. There will also be a practical examination in the elements of Analysis.—2. The experimental laws and elementary principles of Heat, Magnetism, and Electricity.—3. The elementary principles of Physical Optics according to the Undulatory Theory, and Acoustics, with descriptions of the fundamental experiments. A fair knowledge of Inorganic Chemistry, or of one of the divisions 2 and 3, will enable a Student to pass in this section.

SECTION F.

1. Comparative Anatomy and Animal Physiology: The Examination will be confined to the active and passive organs of locomotion.—2. Botany, and the elements of Vegetable Physiology.—3. Physical Geography and Geology: Explanations of Geological terms will be required, and simple questions set respecting stratified and unstratified rocks, the modes of their formation, and organic remains. A fair knowledge of one of these three divisions, including a practical acquaintance with specimens, will enable a Student to pass in this section.

SECTION G.

Drawing from the Flat, from Models, from Memory, and in Perspective; and Drawing of Plans, Sections, and Elevations.

Design in pen and ink, and in colour. A fair degree of skill in freehand drawing will be required in order that a Student may pass in this section. Questions also will be set on the history and principles of the arts of Design.

SECTION H.

The grammar of Music. The history and principles of Musical Composition. A knowledge of the elements of Thorough Bass will be required, in order that a Student may pass in this section.

Local Committees, wishing to have examinations held in their several districts, may obtain all necessary information from the Vice-Chancellor of the University.

Applications on behalf of Students desiring to be examined at Cambridge must be made on or before November 1, 1858.

Applications from Local Committees for examinations to be held in their districts must be made on or before October 1, and the probable number of Students to be examined must be then stated. The names of such Students must be sent to the Vice-Chancellor on or before November 1, 1858, together with statements of the subjects in which they will offer themselves for examination.

The fees for all Students must be paid on or before November 1, 1858.

H. PHILPOTT, *Vice-Chancellor.*

CAMBRIDGE, *March 25, 1858.*

TIME TABLE FOR JUNIOR CANDIDATES.

N.B. All Candidates will be required to satisfy the Examiners in the Subjects printed in *Italics*.

Morning.	Afternoon.	Evening.
<p>TUESDAY, <i>Dec. 14.</i></p> <p>10 to 12, Scripture.</p>	<p>WEDNESDAY, <i>Dec. 15.</i></p> <p>9 to 10½, <i>Arithmetic.</i> 10½ to 12, English Composition.</p>	<p>THURSDAY, <i>Dec. 16.</i></p> <p>9 to 11½, Pure Mathematics (lower paper). 11½ to 12, <i>Dictation.</i></p>
<p>2 to 3, <i>Geography.</i> 3 to 4, Church Catechism. 4 to 5, Whately's "Evidences."</p>	<p>2½ to 5, Latin (lower paper).</p>	<p>2 to 2¾, <i>Analysis and Parsing.</i> 2¾ to 3¾, <i>English History.</i> 3¾ to 4¾, Trench's "Study of Words."</p>
<p>6 to 7½, German.</p>	<p>6 to 8, Chemistry (paper). Zoology and Botany.</p>	<p>6 to 7½, German (second paper).</p>
<p>9 to 12, Pure Mathematics (higher paper).</p>	<p>2 to 5, French.</p>	<p>6 to 8, Latin (higher paper).</p>
<p>9 to 10½, English History. 10½ to 12, Geography.</p>	<p>2 to 5, Greek.</p>	<p>6 to 8, Mechanics and Hydrostatics.</p>
<p>10 to 12, Chemistry (practical).</p>	<p>2 to 4, Music.</p>	

Time will be given for Drawing when the Candidates in that subject are not otherwise engaged: but no one will be allowed to remove his drawing from the Examination Room.
Candidates will be required to *read aloud* at such time as the Examiner shall find convenient.

CAMBRIDGE, Nov. 26, 1858.

HENRY J. ROBY, M.A. *Hon. Sec.*

TIME TABLE FOR SENIOR CANDIDATES.

N.B. All Candidates will be required to satisfy the Examiners in the Subjects printed in *Italics*.

	TUESDAY, Dec. 14.	WEDNESDAY, Dec. 15.	THURSDAY, Dec. 16.	FRIDAY, Dec. 17.	SATURDAY, Dec. 18.	MONDAY, Dec. 20.	TUESDAY, Dec. 21.	WEDNESDAY, Dec. 22.
Morning.	10 to 12, Scripture.	9 to 10½, <i>Arithmetic.</i> 10½ to 12, <i>English</i> <i>Composition.</i>	9 to 11½, Euclid, &c.	9 to 12, Algebra, &c.	9 to 11½, Latin.	10 to 12½, Statics, Dynamics, Hydrostatics and Mechanism. <i>Botany.</i>	9 to 12, Greek. 9 to 11, Physical Optics and Acoustics.	10 to 12, Chemistry (practical).
Afternoon.	2 to 5, French.	2 to 2½, <i>Dictation.</i> 2½ to 3½, <i>Analysis and</i> <i>Parsing.</i> 3½ to 4½, <i>Geography.</i>	2 to 3, <i>English History.</i> 3 to 5, English History.	2 to 3½, Book of Common Prayer. 3½ to 4½, Paley's "Horæ Paulinæ."	2 to 3½, Shakespeare's "Julius Cæsar." 3½ to 5, Geography.	2½ to 5, Latin and Greek (higher paper).	2 to 4½, Applied Mathematics (higher paper).	
Evening.	6 to 8, Chemistry (paper).	6 to 8, Music. <i>Comparative</i> Anatomy and Physiology.	6 to 7½, German.	6 to 7½, German (second paper).	6 to 8, Heat, Electricity and Magnetism.	6 to 8½, Political Economy and English Law.	6 to 8, Geology. <i>Drawing</i> (questions).	

Time will be given for Drawing when the Candidates in that subject are not otherwise engaged, but no one will be allowed to remove his Drawing from the Examination Room.

Candidates will be required to *read aloud* at such time as the Examiner shall find convenient.

HENRY J. ROBY, M.A. Hon. Sec.

CAMBRIDGE, Nov. 26, 1858.

Particulars as to the Numbers and Distribution of the Students presenting themselves at the different Centres of Examination.

	Candidates.		Examiner appointed to preside.
	Senior.	Junior.	
Birmingham...	6.....	37.....	{ Rev. S. G. PHEAR, M.A. Fellow and Tutor of Emmanuel College.
Brighton	3.....	36.....	{ Rev. H. LATHAM, M.A. Fellow and Tutor of Trinity Hall.
Bristol	16.....	75.....	{ Rev. J. LAMB, M.A. Fellow of Caius.
Cambridge ...	15.....	18.....	{ Rev. W. EMERY, M.A. Fell. and Tut. of Corp. Coll. and H. J. ROBY, Esq. Fell. of St John's Coll. <i>Hon. Sec.</i>
Grantham.....	7.....	25.....	{ E. J. ROUTH, Esq. M.A. Fellow of St Peter's College.
Liverpool	18.....	43.....	{ G. D. LIVEING, Esq. M.A. Fellow of St John's College.
London.....	11.....	43.....	{ A. A. VANSITTART, Esq. M.A. late Fell. of Trin. Coll. and E. HEADLAM, Esq. M.A. Fell. of St John's Coll.
Norwich	0.....	31.....	{ H. M. BUTLER, Esq. M.A. Fellow of Trinity College.

Subjects taken in by the Senior Candidates.

The figures and numbers refer to the "Regulations" for 1858, which are inserted above.

The total number of Senior Candidates is 76 ; of these only 2 object to being examined in the section of Religious Knowledge.

			Candidates.
A.	1.	Scripture	is taken in by 74
	2.	Book of Common Prayer	" 66
	3.	Paley's <i>Horæ Paulinæ</i>	" 47
B.	1.	English History	" 67
	2.	Shakespeare's <i>Julius Cæsar</i>	" 38
	3.	Political Economy and English Law	" 18
	4.	Geography	" 56
C.	1.	Latin.	" 55
	2.	Greek	" 33
	3.	French	" 56
	4.	German	" 23
D.	1.	Mathematics (lower parts)	" 54
		" (higher parts)	" 38
E.	1.	Chemistry	" 10
	2.	Heat, Electricity and Magnetism	" 10
	3.	Physical Optics, Acoustics, &c.	" 4
F.	1.	Compar. Anatomy and Animal Physiology	" 3
	2.	Botany and Vegetable Physiology	" 4
	3.	Geology and Physical Geography	" 7
G.		Drawing	" 14
H.		Music	" 5

Subjects taken in by the Junior Candidates.

The total number of Junior Candidates is 308 ; of these only 9 object to being examined in the section of Religious Knowledge.

PART I. is preliminary, and must be taken in by all the Candidates.

		Candidates.
PART II.	1. Religious Knowledge . is taken in by	299
	2. English „	261
	3. Latin „	230
	4. Greek „	91
	5. French „	237
	6. German „	58
	7. Pure Mathematics „	250
	8. Elementary Mechanics and Hydrostatics	65
	9. Chemistry „	24
	10. Geology and Botany „	8
PART III.	1. Geometrical and Mechanical Drawing	30
	2. Drawing from the Flat, from Models, &c.	61
	3. Music „	64

Subjects for University Examinations. 1859.PREVIOUS EXAMINATION. *April, 1859.*

The Gospel of St Matthew in Greek.	Cicero de Officiis, Book III.
Paley's Evidences.	Elements of Euclid, Books I. II. III.
Homer's Iliad, Books III. and IV.	Arithmetic.

ADDITIONAL SUBJECTS FOR CANDIDATES FOR HONORS
IN MATHEMATICS, CLASSICS, AND LAW.

Elements of Euclid, Books IV. and VI.

Elementary parts of Algebra.

Elementary Mechanics.

EXAMINATION FOR THE ORDINARY DEGREE OF B.A.

January, 1859.

The Acts of the Apostles in the original Greek.	Euclid, Books I. II. III. IV. ; and Propositions 1—6 of VI.
The Iliad of Homer, Books XXIII. and XXIV.	Parts of Algebra, Mechanics, and Hydrostatics, as prescribed by the Schedule.
Cicero pro Milone.	
The History of the English Reformation.	

The Classical subjects for the Examination in June next are, the Agricola of Tacitus and the Hippolytus of Euripides. Papers will also be given in the Iliad, Books XXIII. and XXIV., and in Cicero pro Milone, which are the Classical subjects in January ; but the Students who pass the latter Examination will be arranged alphabetically in a separate list.

EXAMINATION FOR THE ORDINARY DEGREE OF LL.B.

HONORS.

*December 17, 1859.*1. Roman Law. *For Translation.*

Gaius's Commentaries, Bks. II. and IV.

Justinian's Institutes, Book II.

Digest, Book VIII. (De Servitutibus.)

Quintilian, Instit. Orat. Book VII.

N.B. The general paper of questions on the Roman Law will be directed among other things to the early form of civil process as developed by Gaius.

2. English Law.

The introduction and influence of the Feudal System, as explained by Hallam (Middle Ages, Vol. I. chap. 2, Parts I. and II. with the notes). Butler's Note to Co. Littleton, Vol. I. p. 191 (a), Sections I. II. III. and VI. Blackstone's Commentaries, Vol. II. Chapters IV.—XII. (both inclusive).

3. English History.

(a) The reigns of Queen Anne and George I. See Hallam's Constitutional History, Lord Mahon's History of England,

Swift's last four years of Queen Anne.

(b) State Trial. *R. v. Tutchin* for Libel against the Constitution. State Trials, Vol. XIV., and see Starkie on Libel, Vol. II.

4. International Law.

Wheaton's Elements of International Law, ed. 1836, Vol. I., and The Treaty of Utrecht.

ORDINARY DEGREES.

June and December, 1859.

1. Roman Law.

Justinian's Institutes, Books I. and II.

Digest, Book I. Title 2 (de Origine Juris);

for Translation, with Sandars's Annotations and Commentary.

2. English Law.

Warren's Blackstone, Chapters III—XV., both inclusive; Chapters XXIV—XXVII. and LIV—LXVIII., both inclusive.

Jervis's Acts, last edition.

3. English History.

Hallam's Constitutional History, from the reign of William the Third to the end of the book.

THEOLOGICAL EXAMINATIONS, 1859,

beginning on the first Tuesday of the Easter Term, and on the first Tuesday after the 1st of October.

PASS EXAMINATION.

Historical Books of the Old Testament.

Greek Testament.

Articles of Religion.

Liturgy of the Church of England.

Ecclesiastical History—The First Three Centuries and the English Reformation.

THEOLOGICAL EXAMINATION (*continued*).ADDITIONAL SUBJECTS FOR HONORS. *Easter Term, 1859.*

- Septuagint—Book of Deuteronomy.
 Greek Testament—Epistles to Hebrews and Colossians.
 Eusebius—Hist. Eccles. Libb. VI. VII.
 Tertullian—Liber Apologeticus.
 Butler—Analogy, Part I.
 Bull—Def. Fid. Nic.
 Hebrew—Genesis, and Psalms CI—CL.

EXAMINATION FOR THE CHANCELLOR'S MEDAL FOR
LEGAL STUDIES, 1859.

1. Roman Law.—Law of Testaments, Legacies and Fidei Commissa, as discussed in Gaius and Justinian, and explained in Sandars's Annotations on the Institutes of Justinian and Linley's Study of Jurisprudence.
2. English Law.—(a) Uses, Trusts, Wills and Legacies, as explained in Joshua Williams's Treatises on the Law of Real and of Personal Property.
 (b) Law of Magistrates. Paley on Convictions, Part III.
3. English History.—(a) The English Constitution from the reign of Henry VII. to that of Queen Mary (both inclusive); see Froude, Hallam, and Hume.
 (b) State Trial of Sir T. Throckmorton. State Trials, Vol. I.
4. International Law.—Kent's Commentaries, Vol. I. Part I. Story's Conflict of Laws, Chapter XI.

SPECIAL SUBJECTS OF EXAMINATION IN MORAL PHILOSOPHY FOR THE MORAL SCIENCES TRIPOS, 1859.

1. Butler's Sermons.
2. Whewell's Elements of Morality.
3. Plato's Republic.
4. Aristotle's Ethics.
5. Aristotle's Politics.
6. Grotius—De Jure Belli et Pacis.

The Student to select, at his discretion, *two*, to answer in out of the above six subjects, for knowledge of which two he will receive full marks. The examination to be in the subject matter of the books. The subjects are the same as those for 1858, but Middle Bachelors who may have been in the Tripos as Commencing Bachelors must select different ones out of them from those which they were examined in before.

OCCASIONAL PAPERS

ON

UNIVERSITY AND SCHOOL MATTERS

TOGETHER WITH

FULL INFORMATION AS TO THE LOCAL
EXAMINATIONS AND RECENT
UNIVERSITY CHANGES.

No. II.

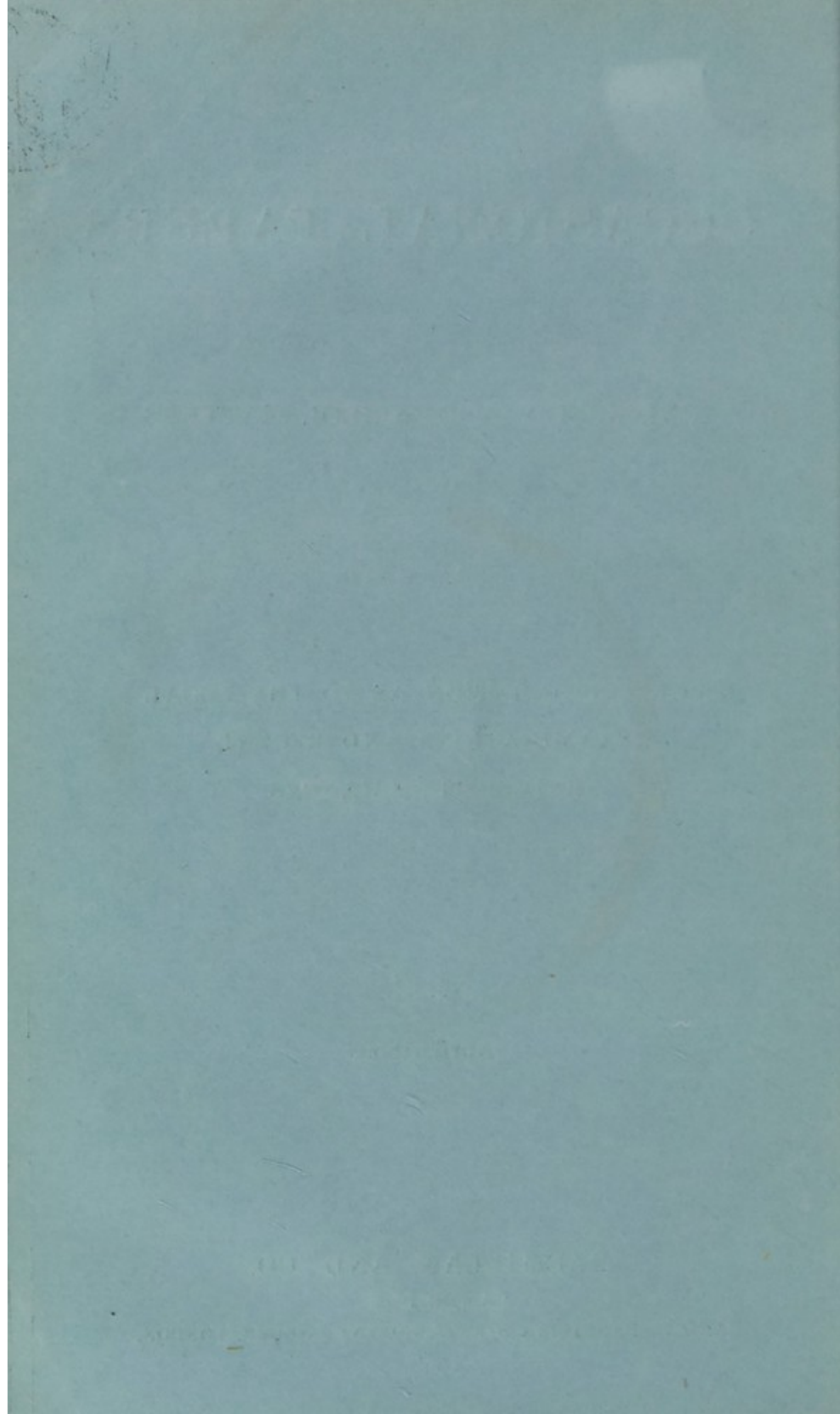
April, 1859.

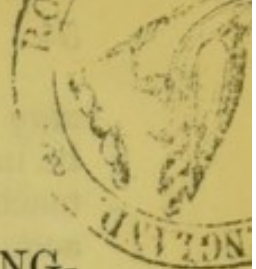
MACMILLAN AND CO.

CAMBRIDGE:

AND 23, HENRIETTA STREET, COVENT GARDEN, LONDON.

1859.





I. ON THE ESTABLISHMENT OF A TRAINING-SCHOOL IN THEOLOGY.

THE Report lately issued by the Theological Board has drawn attention to a subject of considerable importance,—the desirableness of establishing in this place some Theological School for the training of candidates for Holy Orders.

The Board state *two* grounds for their recommendation, which it is not probable that many of us will feel disposed to question,—the peculiar advantages of the place for the establishment of such a school, and the facility of securing the services of competent teachers. To these may be added a *third* reason, perhaps hardly less cogent, and which it is the object of this paper to discuss,—*the insufficient training at present afforded by this place for those who are designed for the ministry.* This reason is pressed upon us mainly by our well-wishers from without, and, it cannot be disguised, both pressed upon us with an increasing assiduity, and, what is worse, practically assumed and acted upon.

We can at any rate hardly shut our eyes to the fact that there are gradually rising up all over the country theological Training-Schools, professing to teach what it is asserted we leave untaught; and it does not seem merely an alarmist view to conceive it possible that these seminaries may gradually form combinations, and petition for, and ultimately gain privileges in respect of their students, which may hereafter seriously diminish the number of entries at both Universities. Circumstances have come to my knowledge, on which it is not necessary here to enlarge, but which certainly seem to point in that direction, and which we may at some future day seek in vain to countervail, except by offering advantages at any rate equal to what can be offered by any place or places of education in the kingdom.

I. But this assumption that our theological training is insufficient, will not be admitted, by many among us, at all so readily as might be imagined. We have two methods of dealing with the case; the one oblique, and the other direct; the one by dilution, the other denial,—both of which deserve consideration before we attempt to indicate remedies for what may be either, on the one hand, inseparable from a University system, or, on the other, plainly unreal and imaginary.

The *first* method of dealing with the charge that the theological training of this place is insufficient, is to admit that it

may be so,—that the education we supply in Theology *may* be incomplete, but that it is not the office of the University to teach fully the *omne scibile*, but rather to educate for a future acquisition of it, and to inure our students to processes, which tested by time and experience are found to prepare the way for any amount of subsequent development. This is well as far as it goes; but, like many other abstract positions, it fails to meet and to satisfy some very plain and homely necessities. It is true ours is a University, not merely a Training-School for those who intend to enter into the Ministry. But then it is a most unquestionable *fact*, and it can be proved by figures, that the *majority* annually of those who are educated at this place are found subsequently to enter into Holy Orders. We seem then bound, as a matter of mere prudence, to pay some respect to this numerical preponderance, and, for our own sakes, to do something of a more special kind for that class which, to speak coarsely, is our best customer.

The *second* method of meeting the assertion that our present theological teaching is insufficient, is simply to deny the fact. This is certainly a method not remarkable for originality, but still one that deserves consideration.

Now, without entering into unnecessary detail, let us simply ask ourselves, What is the theological training which the future clergyman receives at this place? The answer would seem to be, that it does not come from more than three quarters, College Lectures, Professors' Lectures, and the indirect action of the Voluntary Examination. The subjects required at the Little-Go or at the ordinary Examination for B.A. may be left unnoticed, as fairly covered by the College Lectures, which commonly are regulated by them.

Let us make a few remarks on each of these.

(1) Our College Lectures may be said roughly to comprise either what we term Moral subjects, such as Paley and Butler, or portions of the New Testament. How much or how little good may be effected by the Lectures on Moral subjects I feel myself unable to say, as these matters have undergone change in several Colleges, and as statistics sufficiently accurate to reason from are not very readily procured. On the New Testament Lectures I can speak with a little more precision. In some Colleges the Lectures are of a very high standard, and the effects produced by them very perceptible. It does not, however, seem unfair to say that the subject is commonly and almost instinctively considered from an *educational* point of view. I verily believe that in most, nay, I am sure I might say in all cases the comments are both sound and reverential; nay, more, I know that in one case at least

systematic references are given to the standard works of English Theology: still it is a fact not easy to be denied, that construction and language come in for the lion's share of the Lecturer's remarks. Doctrinal deductions, practical exegesis that might hereafter beneficially reappear in sermons, or in teaching adult classes,—much, in fact, that makes up what might be termed *theological* lectures on the New Testament, would, I believe, in the majority of cases, be found wanting. And perhaps rightly wanting,—for the Lecturer has commonly before him a mixed class, of which a majority perhaps may subsequently enter into Holy Orders, but a majority that at the time is scarcely to be ascertained.

I do not think, then, estimating the matter fairly, that we can make more in argument of our College Lectures, than sound, useful modes of teaching, to which the general student may afterwards look back with gratitude, but to which the candidate for Holy Orders will not be under more than ordinary obligations.

(2) The Lectures of the Professors of Divinity now claim our consideration. According to the recent arrangement, attendance for one term at least is required at the Lectures of one of the Professors, to secure the right of entrance into the Voluntary Examination. A certificate of having passed this examination is so usually required by our Bishops, that we may certainly say, in general terms, that the future candidate for admission into the Ministry must have attended at least *one* course of Divinity Lectures.

How far will this have contributed to the special training of the future Clergyman?

Not perhaps quite so much as we might have expected. And this for two reasons:—*first*, because the lectures are commonly attended by young men while yet in their undergraduate course, many of whom, I fear, are induced by no higher principle than that of securing a qualification to enter the Voluntary Examination;—and, *secondly*, because this very compulsion brings together students in such unduly large¹ numbers, that, as the Report shews, it is found practically impossible to edify all. It is quite possible that these evils may, in a great degree, be removed by fresh regulations,—one of the most hopeful of which I am confident will be the abolition of all compulsory attendance,—but still, with all the changes we might devise, with our Professors surrounded by voluntary and attentive classes, with all friction removed to as great an extent as we can conceive possible, can we, or

¹ The class of one of the Professors recently amounted to 280; the class of another once reached 300. There will now be some decrease.

indeed ought we to lay too much stress on these lectures as preparatory for the *practical* duties of the Ministry? For let us not forget, that the occupants of our ancient chairs of Theology ought not to be depressed to the position of lecturers on elementary subjects, or be regarded as the teachers exclusively of those who have not yet entered upon the profession to which they intend to devote themselves. All such attempts thus to 'utilize,' as it is called, our Professors, is in a high degree derogatory to them, and indeed to the momentous subject which they profess. To them ought to be reserved the higher walks in Theology, it is to them that we who are of a more mature age and standing should often be attracted by the elevated nature of the subjects discussed in the lectures,—subjects which, in the present state of things, the Professors must naturally feel would be undesirable and out of place. Our Professors might well and wisely be entrusted with both the power and means of directing the efforts of subordinates, of exercising a general superintendence over the study of Divinity in this place, and of assigning to juniors and assistants the office of carrying out that more elementary teaching, which we are bound to supply, but which seems naturally to belong to the Lecturer rather than to the Professor, to the younger Divinity-Reader rather than to the older and more accomplished Theologian.

I can scarcely think, then, that Professorial Lectures ought wholly to be relied on as meeting this want of an *elementary* training for the duties of the Christian Ministry which we are now considering.

(3) On the Voluntary Theological Examination it is not necessary to say much.

No *Examination*, however carefully conducted, however punctually maintained at a certain standard, can ever be expected to do more than to direct attention to subjects which are thought to deserve it, to suggest useful courses of reading, and to keep up a general interest in the department to which it extends. It can scarcely be doubted that the Voluntary Examination has, in a great degree, answered these ends, but still are we prepared to say that it has not also given rise to a great deal of hasty, ill-digested, hap-hazard kind of reading, to endeavours to get over an undue amount of ground in a short time, and to a very marked neglect of everything that is not supposed 'to pay' in this particular Examination? How many a young man might pass even with some credit through the Voluntary Examination, and yet have a very imperfect knowledge of the practical Exegesis of the Old or New Testament, and find himself very insufficiently supplied

with the elementary principles of constructing sermons, of explaining Scripture to persons of mature age, or, in a word, of so applying any knowledge he may have gained, as to exercise a real spiritual influence over those that may be committed to his charge.

I am very far from wishing to undervalue the good produced by the Voluntary Examination, but judging from the complaints which we are constantly hearing from Bishops' Chaplains, I fear we must be forced to own, that though it may do good in directing attention to a certain course of reading, it still has failed, and indeed by the very nature of the case must fail, in calling out that practical knowledge, which is now so greatly needed, and so much looked for in the young Parish Priest. Such knowledge may be called out, and fostered, but it will never be by examinations that have no connexion, or only a precarious one, with oral teaching.

II. If this general estimate be approximately true, it would seem that we still need some more distinct teaching than our present Lectures can be expected to impart, or our Voluntary Examination to suggest.

But how are we to meet the apparent want? The *general* answer seems easy,—by adopting the suggestions of the Theological Report, and by establishing in this place some sort of Training-School in Theology, for the benefit of those who may be found desirous to avail themselves of such an institution. When, however, we come to *details* we naturally meet with many difficult questions.

In the *first* place, of what standing are those students to be, to whom this advantage is to be offered?

Secondly, how is such a Training-School to be so authoritatively established as to raise it above the level of a mere private enterprise?

Thirdly, what course of study is it to comprise, and what is to be its general constitution?

Let us briefly consider these three points.

(1) The tenor of the foregoing remarks will, perhaps, have prepared the reader for my humble, but very decided, opinion that no regular theological course can be judiciously commenced before the final examination for B.A. Let us never be tempted to interfere, on behalf of Theology, with our existing system of General Education up to the Degree, or to set up any sort of Theological Examination which might be considered as an avenue to the Baccalaureate equally with the existing examinations. This I am confident would, for many reasons, prove a deplorable failure. Classics

and mathematics have made us what we are, and to classics and mathematics as the elements of our general course let us adhere most tenaciously. Let us direct our attention then solely to the case of *graduates*, or, at any rate (to include proposed legislation), to the case of those who have passed their final examination.

(2) The second question, how we are to give an authoritative existence to such a school, is perhaps of some moment.

The most natural course would obviously be to petition the Council to legislate, and the Senate to approve. But then, it will strike every one, that this is in fact pledging the University to a scheme that may after all break down, and that though well and honestly intended may come (like some few of our present schemes) to something worse than nothing. Is there no easier method, no method that in the case of failure would attract less attention from without? If our Divinity Professors will come to our aid, one solution at any rate of the problem may be respectfully suggested. If the Professors should think fit to place themselves at the head of such an institution, and to appoint Lecturers to carry out the elementary system of education that may be devised, we have only to ask the Council and Senate for leave to *sanction* the experiment. The University need pledge itself no further than to be *permissive*; the administrative and executive details may with propriety be referred to another body. These shall be sketched out in the scheme which follows.

(3) With regard to the course of study to be pursued, there may be obviously much difference of opinion.

On this point, however, we shall probably be all agreed that the distinctive feature of our imaginary Training-School should be its *practical* method of Teaching. It should not aim so much at merely imparting knowledge, as shewing how knowledge ought to be applied in practice. Its effort should be to prepare its students for themselves teaching in a sound and effectual way, to give them some useful principles as to the composition of Sermons, and to shew to them how the fundamental doctrines of the Church may be brought soundly to bear on the varied aspects of parochial life. In a word, Interpretation of Scripture, Pastoral Theology, and the practical Teaching of the Prayer-Book and Articles, would seem to be the points on which instruction should principally be given.

Last of all, with regard to the *constitution* of such a Training-School, there may again be much difference of opinion. The only chance, however, of practically eliciting this is to

propose a scheme for criticism, and with good humour to give it up to the many pungent objections, which in so quick-witted a place as our University will be sure to be both felt and expressed.

With the simple desire then of eliciting opinions, I venture to call attention to the subjoined scheme, which is a kind of practical summary of what I have previously stated. It is with all deference that I put it forward. If any of its proposals be thought reasonable, I hope they may be taken; if not, I hope that they may serve to suggest something that may have better claims on consideration. This only will I say on behalf of the scheme, that it is not wholly chimerical. Whether in such a place as Cambridge there may not be some countervailing influences which may after all prevent such a scheme fully succeeding, is a question fairly open to discussion; but that some portions of the scheme have been found to work well elsewhere is a fact that cannot be denied. Here then follows our scheme:—

SCHEME FOR A TRAINING INSTITUTION IN THEOLOGY.

A.

Governing Body and Constitution.

1. That permission be obtained from the University for the establishment of an Institution or Training-School to advance the Study of Theology.

2. That the Regius Professor of Divinity be requested to act as Principal, and the Lady Margaret and Norrisian Professors of Divinity as Vice-Principals of the Institution.

3. That the Principal and Vice-Principals be empowered to select *three*¹ Lecturers to conduct the Studies of the Institution, one of whom shall have the title of Tutor.

4. That the Principal, Vice-Principals, Tutor and Lecturers constitute the Staff and Governing Body of the Institution, and that all have an equal voice in its conduct and government, the Principal, in case of an equality of votes, having the casting vote.

5. That the Staff of the Institution meet at least three times in each term to consider the general state of the Institution, and to confer on all matters that may affect its well-being and efficiency.

6. That the Tutor attend the Meetings in the office of Secretary, that he keep the list of Students, and attend to correspondence.

¹ If the scheme seemed to answer, the number could easily be increased. In any new plan it is ever wise not to be too ambitious in outline. Extension is easy enough; reduction is the prelude of failure.

B.

Course of Study.

1. That the Course of Study be completed in *one* Year.
2. That it comprise (with power of extension) these three subjects,—the Exegesis of the Old and New Testaments, Pastoral Theology, and the History and Applications of the Prayer-Book and Articles¹.
3. That Lectures be delivered on these Subjects by the Tutor and Lecturers, the assignment of Subjects being decided on by the Governing Body.
4. That two Lectures² be delivered daily from 12 to 2 o'clock, each of 55 minutes' duration, an interval being left for a change, if need be, of the Subject or Lecturer.
5. That at the end of the 1st and 2nd Terms there be an Examination in the substance of the Lectures respectively delivered in those Terms³, and that at the end of the 3rd Term there be an Examination in the Subjects noticed and illustrated in the whole Course.
6. That the Examinations be conducted by the Tutor and Lecturers.
7. That those Students who shall be deemed by the Tutor and Lecturers to have passed satisfactorily the final Examination, be arranged in three Classes in alphabetical order.
8. That the Principal and Governing Body be empowered at the end of the Course to grant 1st, 2nd, and 3rd Class Certificates of proficiency⁴,—due regard being paid to regularity of attendance at Lectures and general good conduct.

C.

Students and their Duties.

1. That the Institution be open to such Students, who, having passed the Final Examination for B.A. or LL.B. shall be

¹ These seem the three subjects on which the future Clergyman needs sound instruction. By the term 'Applications,' I mean that the Lectures should not be confined to mere history, but extend themselves to all those points in which the teaching of the Prayer-Book and Doctrines of the Articles come into actual practice or exemplification, such, for instance, as a knowledge of the leading tenets of the various Dissenting Bodies, &c. How little is known on this point!

² For an answer to the objection that two Lectures would be more than could be borne, see the end of the paper. Such an institution must imply honest hard work.

³ Attention to Lectures is quickened more certainly by nothing than by this.

⁴ A first-class and perhaps second-class certificate might be allowed as an equivalent for the Voluntary Examination, and would probably be so recognised by all our Bishops.

permitted by the College to which they belong to reside in the University, and who shall *also*¹ bring from the Tutors and Deans of their respective Colleges testimonials of regularity and exemplary conduct.

2. That application for admittance shall be made to the Tutor, who shall appoint a day for the Student to present himself to the Principal and Governing Body of the Institution.

3. That the Student, if approved, be at once admitted, but that the Principal and Governing Body shall have an absolute power of rejection², without being expected to assign any reasons for that course.

4. That regular attendance at Lectures be required of all Students, except in the case of illness or permission previously obtained from the Lecturer.

5. That the list of defaulters be presented weekly to the Principal, who shall warn and reprimand, and, in the case of continued neglect, report to the Governing Body for dismissal.

6. That the Tuition Fee from each Student be £7 a Term.

7. That one of the Vice-Principals be requested to act as Treasurer.

8. That at the end of each Term the Income of the Institution be divided into 10 parts, and that four parts be assigned to the Tutor and three parts to each of the Lecturers.

9. That the Governing Body shall be empowered to make such changes and modifications in their rules as they from time to time shall judge necessary, the assent of at least Four of the Governing Body being required to give validity to the proposed change.

I will conclude with a few brief comments on two objections which I have deferred alluding to, till the scheme had appeared in full.

First, I sincerely hope that this scheme will in no way be considered as involving the slightest interference with the Lectures of the Divinity Professors. That is far from my desire and intention. So far indeed, that I venture to call attention to this as one of the most hopeful features of the scheme, viz. that by reserving this more rudimental teaching for Lecturers, it tends to restore a former and better state of things, and to leave the Professor free to enter, as of old, into the highest departments of Theology. If such a scheme were

¹ It often happens that the Tutor privately knows something about a pupil which might be considered to disqualify him for entering the Institution.

² The power of rejection must be very decided. A single bad specimen, a single case of detected immorality in a student, would damage the Institution perhaps irreparably. Every possible inquiry then ought to be made beforehand, and, if need be, when made, acted on.

ever to find acceptance, the Professors would at once become invested with additional authority, and more extended powers of usefulness. They would at the same time be able to superintend the elementary teaching by means of their subordinates, and carry out the higher teaching by their own Lectures. The whole province of Theology would not only be in their hands, but so apportioned, that no part of it would be overlooked. I feel, however, that I am here beating the air, for I cannot conceive it possible that any serious objection can be urged on these grounds.

Another objection, however, arising from a consideration of the habits of the possible students deserves more attention.

I will at once dismiss the subject of *money*, for experience shews abundantly that young men are glad enough to pay twice £7 a term for a much less amount of Theological training. If it be said that this is to secure a safe passage through the Voluntary Examination, and that estimating the matter from the point of view of average Students, we cannot fairly put in comparison the solid and present advantages of making sure such a step towards Holy Orders, and the mere abstract and contingent advantages which might be offered by a Training-School. If this be urged, it may be easily met by the perhaps beneficial arrangement of allowing a first and even second-class certificate (as hinted in the note) to be regarded as equivalent to a certificate of having passed the Voluntary. On the score of the Tuition-fee, we need I think anticipate no difficulty.

It may be considered, however, somewhat more doubtful whether young men, just emancipated from the restraint of reading for their degree, would be likely to face two hours of Lectures every day. This objection pressed itself upon me, while working out this scheme, with such force, that I lost no time in ascertaining the opinion hereupon of persons more experienced than myself. The result of inquiry has proved very satisfactory. By one private Tutor of very large connexion and very good judgment as to the feelings and capabilities of our average Students in Theology, I am distinctly informed that here there is nothing to be apprehended in the way of objection. I am told, that the difference in the same average Student, before he has taken his degree and after it, is very noticeable, and confirmed by constant examples. After the degree, the young man feels that his profession is at last immediately before him. All things wear a more real aspect. The work of life is about to begin. These and other feelings are practically found to make even the average Theological Student a really different person to the candidate for the

degree of B. A. It is, I am told, a matter of daily observation, that the private Tutor finds his once too fugacious pupil now almost too exactive. And we may be inclined to believe this is the case, when we observe how few professed Theological Tutors there are among us, and yet, if we are to judge from the constant inquiries made for such assistance, how glad young men are to secure it. The labour is really found to be so very serious, owing to the assiduity of the Students, that few of the average class of Tutors feel disposed to embark upon it, though the applicants, I am informed on all sides, are becoming annually more numerous.

We may, then, rest assured, I think, that the two hours of Lectures will deter none; and when we add to this the remembrance that the Students of such an Institution as that proposed would all be picked men, we may, I feel sure, rest satisfied that this objection will be found in practice to be completely imaginary.

It will now be well to put a close to this paper, which has grown to far greater dimensions than was at first intended. The great importance of the subject, however, must be my excuse in two ways; it must plead for my prolixity, and must also in some degree account for my presumption in having put forward a scheme when there are so many among us who are better qualified to have done so.

I will conclude, then, with the old quotation, *Si quid novisti, &c.*

C. J. E.

II. THE MORAL SCIENCE TRIPOS.

THE original promoters of the Moral Science Tripos must feel somewhat dissatisfied with the result of their experiment. It has now reached the ninth year of its existence, and the Examiners have still hard work to secure an Examinee apiece¹. The visions of fellowships which were to await successful "moralists" have proved delusive, and it is to be feared that there is an equal lack of the less substantial meed of honourable distinction. He who is bold enough to become a candidate must do so on his own responsibility. Whether it be that he is honestly desirous to have the soundness of his knowledge tested, or that he is impelled by a chivalrous wish to give a fair start to an infant Tripos, no Tutor will encourage him to enter an Examination which can scarcely increase, and may possibly damage his reputation; and as for his friends, to go in for the Moral Sciences, will only be regarded by them as the last effort of despairing ambition. How are we to explain this contemptuous treatment of our new Tripos? Why is it that there are so few candidates, and why does so little weight attach to the Class-list? Partly no doubt it arises from the general indifference to philosophy at Cambridge, but partly also from causes more easily remediable, which I shall endeavour to point out in this paper.

The first great mistake of the Tripos as at present constituted, is that it sins against the fundamental principle of Cambridge Examinations. Instead of requiring that however little a man knows he shall at least know that little thoroughly, it goes upon the contrary principle that however shallow the knowledge shown, it shall at least be extensive. Thus to obtain a 1st class, three of the following subjects must be taken in: Moral Philosophy, Political Economy, Modern History, General Jurisprudence, English Law. Now if it is thought that a smattering in three of these subjects deserves a University Honour, of course there is no great difficulty in the performance; a man may cram his Political Economy or English Law over night and be distinguished next morning: but if the same sort of accuracy and thoroughness is exacted from a First Class Man in 'Morals' as from a First Class Man in Mathematics or Classics, it seems to me that so far from insisting on three of these subjects, we should not allow more than one to a Commencing or more than two to a Middle Bachelor. At any rate we should do our best to prevent smatterers from picking up marks in all five subjects, and

¹ In the Tripos list for this year we find three students to six examiners.

so surpassing others who had a really thorough knowledge of some one subject. It would be easy to effect this by a rule such as has been introduced into the Indian Civil Service Examination, that marks should not count in any paper unless they exceeded a certain proportion of the maximum.

The 2nd point to which I would draw attention is one which was noticed in the Report of the Cambridge Commissioners of Inquiry (p. 100). It is there said "We are disposed to think that if increased activity were imparted to the system of Legal Studies and Examinations, it would be found convenient to have a distinct career for Students of Law in the Law faculty, and to separate them from the department of the Moral Sciences." There is now an Honour Examination in Law and still we retain the two Law subjects in the Moral Science Tripos, thus offering to Law Students an opportunity of gaining double distinction for the same knowledge, while we deter others, whose time has previously been devoted to Mathematics or Classics, from putting themselves into competition with men who are already two subjects ahead of them. The natural consequence will be, that should the Moral Science Tripos survive in its present form, it will come to be regarded as a sort of Smith's Prize or Chancellor's Medal for Law Students.

Other suggestions are thrown out by the Commissioners in different parts of their Report as to the grouping of subjects in the Moral Science Tripos, but they have not proposed the only arrangement which appears to me entirely satisfactory, that of a purely Philosophical Tripos. As it is, Moral Philosophy is made to embrace a much wider range than it has, strictly speaking, any right to do. One of the permanent subjects, Plato's Republic, treats nearly as much of Metaphysical as of Moral questions; indeed the one department cannot be satisfactorily handled without touching on the other; but I should wish to see Mental Philosophy made a substantive part of the Examination, so that it might be lawful to set such a book as Bacon's *Novum Organum* or Whewell's *Philosophy of Induction* or some of Sir W. Hamilton's writings. To the two papers in Mental and Moral Philosophy I would add a third in Logic. How this subject could be omitted at a time when it is making such advances in the hands of J. S. Mill and others, and when its importance is becoming every day more widely recognized, I cannot conceive; unless it were from some suspicion of anything which might seem to be imported from Oxford. History might either become the nucleus of a new Tripos, or, perhaps better, be joined to the Law Tripos, and in its stead we might introduce papers in 'Poli-

tics¹, and in the History of Philosophy: Political Economy might still be retained as an appendage to 'Politics.' Thus reorganised, I believe our Philosophical Tripos would vie with either of the old ones as a test of knowledge and ability, and would in a short time come to be thought as highly of, if the examination were conducted in the same manner.

This brings me to my 3rd point. At present each Professor sets the paper in the subject in which he has been lecturing, and the Additional Examiner appointed by Grace sets one general paper containing questions on each of the five subjects. Thus even if men did as well in the unseen paper as they did in those for which they had been previously prepared in lecture, the marks of the Additional Examiner in each subject could only equal $\frac{1}{5}$ of the whole marks given for that subject, and could therefore have little influence in deciding the class-list. Not to mention that the Additional Examiner being for the most part younger and less distinguished, and possibly not quite *au fait* in all the subjects, is hardly likely to hold his own opinion very strongly when it differs from that of the Professors.

Now I have no objection to Professorial Examiners as such, but I think that if a Professor has to examine in a set subject upon which he has been delivering lectures, there is some danger that the questions may turn too much upon minute points and special difficulties which have been adverted to in his lectures. It is not the object of the Examination to find out who have attended the Professor's lectures most assiduously, but who show most power and thought and knowledge. In philosophy, especially, there is nothing so much to be dreaded as the encouragement of a parrot-like repetition of other men's opinions. I do not mean to deny that it may be necessary for the Professor to examine when it is impossible to find any one else possessed of the requisite qualifications; but it is to be hoped that the body of Cambridge Graduates will always be able to supply men duly fitted to examine in the Moral Science Tripos.

If the modifications I have suggested should be carried out, two examiners would probably be as many as we should require for some years to come; if we retain the present heterogeneous constitution we must have rather more; but more or fewer I should wish to see them all appointed by Grace of the Senate.

The 4th point is one of apparently minor importance, but it has perhaps greater weight than any in lessening the num-

¹ Aristotle "*Politics*" is now one of the permanent subjects in Moral Philosophy.

ber of candidates. I mean the time at which the examination takes place. It is now ingeniously contrived to prevent both Classical and Mathematical men from taking part in the Tripos for Commencing Bachelors. It immediately succeeds the Mathematical and precedes the Classical Examination. It may be said that this makes no difference because all can go in for the Tripos of Middle Bachelors, but experience shows that they will not do so. A very small proportion of Honour men stop up for the whole year after their degrees, and a still smaller proportion of those who go down have time enough or retain sufficient interest in the subject to come up again and face a University Examination. What is wanted is that this Examination should be shifted to the following May or October: the former would be better for Honour men who will be less occupied with pupils before the Long Vacation, the latter would be more convenient for the Poll men who will now pass in May.

The last point to which I would invite attention is the Institution of a Board of Moral Sciences: this was suggested by the Commissioners, but it has met with no better reception than the rest of their recommendations. That *bête noire* the new Commission is I suppose to be charged with this as with other negligences of the Colleges or University, but it seems strange that the old-established Triposes should be under the supervision of their distinct Boards, while this half-fledged offspring of revolutionary zeal has been thrown upon the University to sink or swim without any body to give it a helping hand. The old Triposes might have managed pretty well for themselves, but an experiment of this kind could hardly be expected to succeed at once, and it should not have been left to chance to bring about those changes which experience might show to be necessary.

To sum up the foregoing remarks in a few words, I believe that there is no hope for the Moral Science Tripos till we make the following alterations:—

- I. The exclusion of History, English Law and General Jurisprudence from the Moral Science Tripos.
- II. The addition of Papers in Logic, Mental Philosophy, Politics and the History of Philosophy.
- III. The introduction of the principle of a minimum below which marks should not be allowed to count.
- IV. Examiners to be appointed by Grace for Two Years.
- V. The Time of Examination to be altered to May or October.
- VI. The Institution of a Board of Moral Sciences.

J. B. M.

III. EXAMINATIONS IN NATURAL HISTORY.

THE experience obtained from the answers in Botany, at the late General Examination without the University, seems to render it desirable to make a few remarks upon the condition in which the study of the Natural Sciences now stands in Schools. Those who have paid any attention to the results of the two Examinations which have been held, one by Oxford, the other by Cambridge, must have remarked that the number of candidates presenting themselves for examination in Zoology and Botany was exceedingly small; and, if they take any interest in the advancement of the study of subjects so admirably fitted to train the minds of the young in habits of accurate observation and exactness in the use of language, they must grieve thereat. Of course I do not pretend to know anything of the answers obtained at the Oxford Examination, nor those received in Zoology at Cambridge. The Oxford Delegates remark that the paper in Natural History "gave the impression of knowledge procured almost entirely from books," and add that "for all purposes, whether of mental discipline or of life, such knowledge is as worthless as a real acquaintance with those sciences is valuable. And the only means of securing that reality is to study the things which are the subjects of the sciences, and not merely the books about them." I have arrived at the same opinion, and in addition am satisfied that the chief cause of the deficiencies shewn by the candidates is a want of knowledge in their teachers. The latter do not themselves understand Natural History, and therefore cannot teach it to others. They have little idea of its real value as a subject of education, never having benefitted by its study, and so attempt only to cram their pupils with disconnected facts which may gain a few marks in a General Examination. When consulted by their pupils, they hardly know what books to recommend to them, and are unacquainted with the real mode of beneficial study.

But those teachers who desire that their pupils should attain credit for their knowledge of these sciences, and advantage from the study of them, will probably be glad to be reminded that there is no chance of such results unless the pupil has acquired more than a book-knowledge of the subject. It is found that to require a botanical student to describe specimens of plants is by far the best, and perhaps the only, mode of certainly discovering the character of his knowledge and the kind of teaching which he has received. It is quite impossible for any person to write such a description unless he has familiarized himself with the use of botanical language by applying it to actual specimens. No cramming from books can stand this

test; no "getting up by rote" can possibly avail. The student invariably exposes his ignorance. On the other hand, the ability to describe shews that he has acquired habits of much value, namely, those of close observation and minute accuracy. To obtain this power it is requisite that he should first have made himself well acquainted with some correct introductory book. I say correct, for the popular books on these sciences are usually very inaccurate: a botanical one recently published with much parade, is especially so. He must then obtain specimens of plants and compare them carefully with the descriptions given in some good (not "easy") descriptive flora. On a succeeding day the same plants should be obtained and descriptions of them written down, which may afterwards be corrected by those in the book. Oral teaching combined with written descriptions, made by the student, and corrected by the master, is a better plan in cases where the teacher has a sufficient familiarity with botanical language. The great object is the attainment of such an amount of knowledge as will secure a correct nomenclature of the organs and a proper application of the adjectives descriptive of their form and structure.

To shew clearly the want of such teaching it may be well to state that even the best candidates at the late Examination, who obtained more than two-thirds of the marks attainable for the paper, were unable to describe the stem and leaves of a bramble: omitting some important points, even overlooking some conspicuous organs, and mistaking the others. For instance, the stipules were totally overlooked; the single compound leaf was called a cluster of leaves; the petiole or leaf-stalk named a twig or branch. Some of the other candidates had manifestly been reading books upon botany, but shewed most clearly by their answers that they did not understand them. As this was the first Examination a less proportion of marks was allotted to these descriptive parts of the paper than will probably be the case in future. Masters and students will therefore do well to pay careful attention to it.

It may be allowable to conclude this paper by mentioning that Dr Lindley has recently published a little book (price one shilling) entitled *Descriptive Botany*, which will be found very useful; his *Elements of Botany* and *School Botany* are also valuable works. Professor Henfrey also has published two excellent books, viz. *Rudiments of Botany*, second edition, and *Elementary Course of Botany*, the first suitable for the Junior and the second for the Senior Candidates. The *Rudiments* is wholly descriptive, the *Course* enters also upon the Physiology of plants.

CHARLES C. BABINGTON.

IV. THE THEOLOGICAL EXAMINATION.

OF the subjects to which the attention of the Council of the Senate will ere long be drawn, perhaps the most important is the University Theological Examination. Complaints of the present Examination have been from time to time made both within and without the University, and the Board of Theological Studies have lately issued a Report in which they give the results of their experience during the last three years, and recommend certain changes.

I may be permitted to make some remarks on the subjects named in this Report, and on the whole system of Theological training as it is affected by the Universities and by the Bishops.

I would speak therefore first of the great importance of our Cambridge Examination. In consequence of the confidence placed in it by the great majority of the English Bishops, it serves as a check to stop ignorant men from entering Holy Orders. And in consequence of the same confidence, it furnishes the great motive and chief guide to the reading of our young clergymen. If the Examination is incomplete and unsatisfactory, the reading of our candidates for Holy Orders will be so too. For this Examination, more than any other institution in England, affects the studies of the clergy. The Bishops' Examinations are limited and private. The papers of questions proposed are rarely published. In an educational point of view, therefore, they are nearly useless. But from the publicity of our Examination; from the large mass of students who prepare themselves for it; and, I will add, from the acknowledged position and standing of the Examiners, and their freedom, as a body, from the doctrinal peculiarities in which the Bishop's single chaplain occasionally indulges, it is a most important educational institution.

It is therefore of the greater moment that it be carefully watched and continually brought nearer to perfection.

At the same time we must remember that the only motive which induces three-fourths of our graduates to read for and pass it, is supplied (as I have said) by the Bishops' regulations. Make the Examination too strict, or make it too lax, and the Bishops will become either unable or unwilling to avail themselves of it.

Our aim, therefore, must be to make such arrangements as will best carry out the wishes of the episcopal bench, with our eyes fixed on the glory of Him whose ministers it is our object to benefit.

One complaint which the Board of Theological Studies

endeavour to meet, is that the Examination is too diffuse and indefinite, so that it encourages what is vulgarly called cramming. The Board speak only of one subject—the Greek Testament,—but their remarks may be applied to almost all the rest. They say that it is too much to expect “a knowledge of the whole of the Greek Testament from the candidates for the ordinary examination. Inferior scholars have regarded it as hopeless to give due attention to all parts of so long a subject, and have too often attempted to acquire a partial knowledge of unconnected passages.” The inquiry arises whether this is the only subject of which it has been found hopeless to gain a competent knowledge? I will take the List: we find in it the following: “The Historical Books of the Old Testament; the Greek Testament; the Articles of the Church of England; Ecclesiastical History of the first three Centuries; History of the English Reformation.” I maintain that of these the last two only suggest any definite line of reading. It is left entirely uncertain whether the Examination in the first named subject will comprehend any allusions to the history of the Jewish Canon, to difficulties of Chronology, interpretation of texts; and so on. On the Greek Testament there is no settled principle as yet working, to decide whether the papers shall contain or exclude questions on the history of the text, on the history of the writers, on the interpretation of the parables, on the illustration of miracles or Eastern customs, or whether they shall merely give passages to translate and re-translate. In the questions on the Articles it is equally uncertain whether the student will be called upon to shew any knowledge of the history of their wording, or the history of the doctrines contained in them; whether an accurate acquaintance with the English or Latin text will be required, or whether a brief summary of the Scripture proofs will not satisfy the Examiners. The same uncertainty hangs over the Prayer-Book, in which subject it is notorious that papers have been proposed the effect of which has been to crush all hopes and deaden all exertions.

These are points connected with the Examination to which the attention of the Council and the Senate should be drawn quite as seriously as to the question of limiting the portions of the Greek Testament which are to be prepared. It is perhaps unfortunate that the Board of Theological Studies comprehend none but Examiners,—Examiners too who have not had the same experience in instructing students in Theology, that members of the Mathematical and Classical Boards have had in the training of pupils in their respective studies.

And there is another point of great moment to which I find no allusion in the Report. The recommendations are founded on the experience of the last three years: but at this very time a change is coming into action, which may be fairly considered as of great moment to the Theological studies of the University. The period of residence necessary for the B.A. degree is reduced from three years and three months to two years and eight months—and (as it has been generally understood) with the view of allowing graduates a longer period of time for their preparation for Holy Orders, or whatever their future career may be. Thus we may fairly presume that the Theological Student may have at least seven months *added* to the time for his professional studies before he offers himself at the University Examination. It is not clear whether the Board contemplated this addition of time when they recommended the diminution in the books of the New Testament to be prepared. Surely the Examiners do not desire to encourage the present unhappy attempts to prepare for their Examination in the ten weeks which intervene between the end of January and Easter, or in the thirteen weeks which come between the middle of June and October. Surely it is not too much to expect that the majority of our candidates for Holy Orders shall devote at least twelve months to their preparation for the Bishop; *i. e.* at least *nine* before they present themselves in the Senate-House. And then, if we remember that they have been, or ought to have been, readers of their Greek Testaments through the whole of their undergraduate course, nay have commenced the study long previously at School, we may expect a competent knowledge of the *whole* of it at the University Examination. I trust therefore that in this point the Council will not give way to the recommendation of the Board. I trust that they will resolve to raise the character of the Examinee to the old standard and not reduce the standard to suit the measure of the idle and the negligent. And I would urge again that the Examination in the Greek Testament is by far the most important part of the whole. Students will prepare themselves for the papers on it with far greater care than they will for the corresponding papers in any Bishop's Examination of which I know anything. Greater accuracy of thought and knowledge is encouraged. And when the Bishops are looking to the Universities for a more systematic training of the Clergy, I shall indeed grieve if the call is met by a cutting down that part of the Examination which is most important, and in which the University has the greatest power to encourage system.

I would, however, earnestly beg the Council to introduce

some limitations as to the mode in which the Examinations are to be conducted. Too much license has been hitherto taken by the gentlemen who have set the papers, and at one time one, and at another time another has allowed himself to put unduly prominent that branch of the subject in hand to which he has himself paid most attention. The Examinations have been thus uncertain and unsteady. Careful and extensive reading has frequently proved useless when the whim of the Examiner has carried him in his own direction. Thus it is by the fault of the Examiners that "cramming" has been encouraged, and that in an educational point of view, the Examination has failed in accomplishing the good which it might have done.

How this may be corrected, I will scarcely venture to suggest. Most persons would be content if the rule which is observed in the chief Examinations conducted by the University were introduced into this, *which yields to none in importance*. It would be deemed sufficient if the papers which are prepared by one or two Examiners are submitted for the approbation of the whole body. Peculiarities will be thus modified and deficiencies supplied. And throughout, it must be kept in mind that the Examination is not one in which each person is to be classed according to his merit, but one in which the only inquiry is whether the Examinee is unfit to receive the University Certificate.

If it is clearly understood that the Examinations shall be made thus definite, and distinct encouragement is to be given to definite and accurate reading, there can be no objection raised against one suggestion of the Board, viz. that the Examinations shall be made to bear directly upon the Professorial Lectures. The recommendation of the Board "that each candidate for the Theological Examination be required to attend only one course of Lectures but to pass an examination in the substance of those Lectures" can in this way alone (as I conceive) be carried out. The University cannot be expected to sanction a law by which its *Undergraduates* shall be required in addition to their present work to pass a Theological Examination: nor will the Bishops be inclined to *compel* residence in the University after the degree has been gained. For this is the very point to which they have objected in the Oxford scheme of Theological Examinations, and because of their objection that scheme has failed.

My own conviction is this, and I trust I shall be excused if I again put it forward: that the *Examinations* must be considered as the only means by which the University can educate in Theology the majority of its members. I regret

therefore that the Board recommend that the attendance at a course of Lectures from the Professors must be still required as a condition, before a student may present himself at the Examination. I believe that the attendance as at present enforced is worse than useless; and that by the regulations demanding it, both the Divinity Professors are subjected to neglects from which they ought to be exempted, and the members of their classes are subjected to temptations which are too great for the majority of them to resist. I should rejoice to know that their presence was rendered entirely voluntary, and I feel confident that the Professors would find in the smaller classes of willing students that would then encircle them a more congenial band of fellow-labourers, who would look to them for definite assistance, and would encourage them by their attention and their sympathy. And we might hope that in some of the Lectures at least, encouragement would be again offered to Masters of Arts and Fellows of Colleges to extend their Theological Reading, even as in the earlier courses of Lectures given by the late Professor Blunt.

The Board offer no suggestions as to any plan of systematic Theological training, although they express their opinion that means to promote this "ought to be devised." On this opinion I would merely remark that whilst I am by no means prepared to maintain that the Universities are the *only* places wherein their graduates should be permitted to seek for preparation for the Ministry of Christ in our Church, they do present opportunities and advantages of no ordinary character. But it is clearly impossible that the Professors can undertake the systematic training of the two hundred men who annually pass the Theological Examination. The interruption to a regular course of reading caused by the Long Vacation is of itself a fatal drawback.

The question is yet open to discussion whether a course of Theological instruction can be combined with any regular plan of visiting the poor. My own conviction is that it cannot be so combined, and that therefore Cambridge is able with such modifications as I have suggested to furnish to a *limited number* of Students all the advantages which are offered by Theological Colleges. In support of this opinion I would refer to the evidence which Mr Nugée gave before the Committee on "Spiritual Destitution." He stated that the effort to combine Theological training with works of a Pastoral nature had failed at King's College, London. And I understand that the success claimed elsewhere for the combination is to some extent fictitious. In Cambridge pastoral visiting

might be superseded by a course of instruction in pastoral matters.

But as I said before, the exertions of the University to render her Examinations efficient will be thrown away unless she is supported by the Bishops. And their Lordships should be made aware that at this moment great dissatisfaction is felt and expressed that the "Voluntary Theological Examination" is used merely as a sieve to save their Chaplains trouble. The Cambridge B.A. who has passed it, is made in every Diocese in England, to pass the same ordeal as is his Oxford contemporary who appears fresh from his degree. I am not surprised therefore to hear that Cambridge Tutors of Colleges object to their pupils being submitted to an examination which is so little fruitful in results, and feel anxious to change its character entirely. At present it acts unfairly on our University. An active and thoughtful Bishop's Chaplain would make greater use of the Cambridge Examination. He would consider that the Candidate for orders who had passed it, need not be kept for two months longer over Church History and the Articles, over the Greek of the Greek Testament and the skeleton of the Prayer-book. Those two months might be employed in another and more useful manner. The candidate might be assured that the drudgery of his work is over, and that now he may seek by *devotional* reading, and the consideration of the *practical* duties of his future calling, to prepare himself more adequately for it. He need not be called upon to keep up until the last moment his dates and his summaries, but might be encouraged to bring a clear head and a softened heart to receive the last words, which the Bishop will say to him before he puts his hand to that plough from which there is no withdrawal. If the Bishops will so use our Examination, all complaints of its present needlessness will cease. The University will examine the intellectual qualifications; and the Chaplain assured of these will deem it his special business to look after the moral and spiritual condition of the Candidate. Papers on schools and visiting, on sermon-writing, parochial ministrations, and pastoral conversations, would thus be a welcome and useful supplement to the Cambridge Examination.

I am watching anxiously to see what effect upon the age of our freshmen will be produced by the diminution of time required for the B.A. degree. I have already heard it recommended in more quarters than one that boys intended for the Ministry of the Church, shall be detained at school so much the longer: because, as it is said, "if they take their degrees at 22 they will have nothing to do until they are

ordained." This is the estimate which popular opinion puts on the preparation needed for Ordination Examinations. Men in making ready for them "have nothing to do!" Whether it shall continue to be so or not, depends not upon the Universities but on the Bishops. Whether the time given up by Cambridge shall be used for the purpose for which it has been given up, depends upon the Bishops. The expence of a twelvemonth's preparation for Holy Orders between the ages of 22 and 23, will not exceed that now cheerfully laid out on the schooling of the boy between 19 and 20. A year's preparation therefore, if it is left free where it is to be gained—(some may have to seek it whilst they are acting as tutors in families or in schools)—need not entail any additional expence on the parent or guardian. When, then, the Academic career is shortened, as henceforth it will be, it will be unpardonable if the Bishops do not seize the time thus saved, in order that it may be given up to prepare the new Bachelor of Arts to serve his God and Saviour more heartily and more fittingly in the Ministry of His Church. If the Bishops look to the Universities to raise the character of their Candidates for Holy Orders, the Universities look to the Bishops not to deprive them of this opportunity of doing so.

C. A. S.

[Feb. 1, 1859.]

V. ON THE ESTABLISHMENT IN CAMBRIDGE OF A SCHOOL OF PRACTICAL SCIENCE.

NEARLY fifteen years ago when the Railway Mania was at its height, and any one who could use a theodolite found himself a valuable personage, projects for setting afoot in this place a school of Civil Engineering are said to have received considerable attention, but before they took any definite shape the railway panic ensued and all prospect of success for any scheme of the kind disappeared.

Since that time, however, the applications of science to the wants of civilized life have become vastly more numerous and important, and a large number of persons are now engaged not only in Civil Engineering in the old sense of the term, but in the construction of machinery and scientific instruments as well; and for this class to do their work properly, and to hold their place in comparison with engineers abroad, where Government schools in these departments are liberally maintained and protected by the enforcement of attendance, they should obtain a more regularly scientific education than now for the most part falls to their lot. In this quarter then there seems to be a hope of our finding that which the University is so anxiously seeking, namely, a direction in which she may extend the area of her action so as to make the higher kind of education better understood and valued by people at large.

The real difficulty of University extension has been, to find a class of people beyond those which now supply our students, who really require positive attainments, in any branch of learning whatever, to enable them to enter on the occupation by which they are to make their bread. For in spite of all we hear about the demand for education, the more we search into the state of the case the more clear it becomes that young men will not face a course of methodical intellectual work unless they are compelled to do so either by the necessity of getting a certificate of competency, or by finding that the possession of knowledge is essential to their success in the business of life.

In a great number of callings, the little technical knowledge which is necessary can be got in a sort of from hand to mouth way when it is wanted, and persons tolerably favoured by circumstances can manage to earn what is called a respectable livelihood, without, not only any general acquirements, but even any professional knowledge worth speaking of. The question then with us is to find some occupation, beyond the regular professions which require a liberal education, for

which a certain amount of intellectual attainments is absolutely required. If we can only find a demand for young men possessing certain qualifications, then having the will, as we certainly have, we shall soon find the means to set up the requisite machinery for turning out the article which the market requires, and the raw material will be forthcoming. There has been much more difficulty in finding such a class than would be supposed; those who do not want a liberal education for the most part really want none at all, beyond a trifle of schooling, or only want such very special and technical little bits of knowledge that they do not care to undergo systematic instruction to obtain them.

It would seem, however, that young men intending to follow Civil Engineering and other similar professions constitute a class so exactly answering to what we want that we have nothing to do but to establish a department of applied sciences. But on the contrary, there are difficulties in the way which must be very carefully considered.

It is true that now and then some of our distinguished students have taken up this Profession after their Degree¹, and brought their knowledge of Natural Philosophy to bear on it with great effect; and as the Profession obtains more and more the social estimation which its importance warrants, no doubt such cases will become more frequent; but for us to bring together such a number of practical students as to form a school that should work with spirit and efficiency,—for we must have a *number* of competitors in order for a place in a class list to carry weight with the public—we must offer facilities for those who do not aspire to the highest walks of their profession, and whose general education has been terminated early; hence as we could not insist on the Previous Examination, or on residence for so long a period as even our reduced number of nine terms, it follows that we could not give the B.A. Degree to such students, and they would have to content themselves with some such designation as Associates in Practical Science. But as both the University and the Public generally are now familiarised with the idea of the granting of titles instead of Degrees, the difficulties on this head are by no means serious. Thus the more weighty difficulties arise from the nature of the Professional training, and from a sort of prejudice against Theory entertained by the less educated part of the profession. No doubt it is absolutely necessary for a young engineer to be practically acquainted with all

¹ The Smith's Prizes might very well be given some time after the Degree for proficiency in Physical Science, regarded from a practical point of view. In the Mathematical Tripos we are forced to regard it mainly as an educational instrument.

the manual part of his business, it is indispensable that he should see processes and constructions carried on upon a large scale, and enter into the questions of *cost* with an interest which he can only derive from seeing real operations performed in a thoroughly business-like way.

To do this he must be in the workshop of some large establishment, and usually he is articed for so many years that to spend two or three years at the University either before or after his time would unduly put off the time when he ought to be earning his bread.

The masters of large works have generally been unfavourable to schemes of Collegiate teaching, and as their countenance is essential to the success of any scheme we must endeavour to obviate the objections which they have raised.

We must not then set up our University School as a rival to the teaching of the workshops, we must give each its proper department and fit them to work in unison. We need not rob the Masters of their Articled Pupils, merely because we shall want the latter on three or four occasions during their term of Articles to pay visits of eight or nine weeks duration to the University; on their return from which we may hope that they will be able to render better service to their masters.

This course we adopt not only from motives of policy, but because we know it to be essential for an engineer to work with his own hands.

Yet it must be acknowledged that for an engineer to be a scientific and intelligent man, fit to take the rank he ought to hold, he should be acquainted with a certain amount of Mathematics, and have a good knowledge of some portion of several sciences. These he must be *taught*, and the workshop is not a favourable place for learning them.

The Head of the establishment has neither the time nor the inclination to act as a Tutor, and the foreman to whose hands the pupils are committed is generally destitute of scientific knowledge, hence there is a danger of the pupil qualifying himself only to be a foreman or head artisan and not a scientific Engineer, and there is a still worse danger of persons, thus exclusively trained by practice, imbibing a prejudice and scorn for all science, which they will call "theory" and "book-learning,"—a prejudice which will be all the more bitter and mischievous in after life from its being founded on an inward misgiving of a defect in themselves which it is much easier for them to deny than to remedy.

We propose then to withdraw the pupils from the workshop for such time, and such time only, as is requisite for them to learn what they can better learn in the University,

where they will have the benefit of personal intercourse with persons of the highest authority in the several sciences and of their instruction therein, and where they will have the use of every appliance for learning what they want: and as we wish to make the scheme as easy and plastic as we can, we propose to make the residence as short as possible, and to leave the students great choice as to what lectures they will attend and at what intervals they will keep the necessary number of terms—for we know that an Engineer might be engaged in some important work for which he wanted the assistance of his more intelligent pupils, and which it might be most desirable for them to take part in. By these means we hope to obviate the difficulties which proved fatal to the College at Putney, and which have kept the numbers of *bonâ fide* students in the Engineering departments elsewhere much lower than might have been expected; circumstances which have hitherto discouraged us from attempting anything of the sort here.

The present, however, is an excellent opportunity for establishing a Cambridge School of Practical Science. We are about to remodel our Professoriate, and we shall shortly have funds which will enable us to secure the services of the requisite staff of assistants as well as to provide the necessary laboratories, workshops and Museums. Moreover, the Lectures of our Cambridge Professors, Professor Willis and Professor Stokes, having of late been eagerly attended by a somewhat similar class of students at the Government School of Mines, we may trust that the personal reputation of our teachers will draw to us Students from all quarters.

Further, a late measure of the India Board amounts almost to a call on the University to take some step of the kind we contemplate: according to an announcement in the *Times* Newspaper of the 14th of March, a number of appointments to Government Civil Engineerships in India are to be thrown open to public competition; the works in India are so gigantic, and they will require so large a staff, that the annual vacancies will be very considerable, and these will no doubt be disposed of by a competitive Examination similar to that announced. The range of subjects is precisely what we should adopt, and this place would of course afford great facilities for preparing Students for Examination, because teaching and examining are the great business of the place.

The limit of age also which is fixed (*viz.* under 22) would very well fall in with our scheme. Again, the existence of the School of Art in Cambridge which has been recently established, and which is very flourishing, will afford us the means of teaching Mechanical and Geometrical drawing very

efficiently, and thus a very important part of the necessary apparatus is ready to our hand. With a view then of putting our proposition so far into shape as to bring discussion on the subject to a point, we will sketch the main features of what we consider to be a practicable scheme.

We presuppose the existence of a sufficient laboratory with furnaces, &c., suited for teaching Metallurgy; that at St John's College, which is at work and open to the University, would answer the purpose until one on a larger scale can be constructed. We should also require workshops for Mechanical Students, and of course what abroad is called a Physical Cabinet, that is a collection of philosophical instruments and apparatus. Our Museums of Mineralogy and Geology are ample and excellent. We should also, of course, have a sufficient staff of Professors or Lecturers to teach Surveying practically in all its branches, Mechanism, as well as Mechanical Philosophy, Chemistry, Metallurgy, Geology, and the practical methods of taking observations with such instruments as are employed by travellers engaged in scientific expeditions¹.

We propose then, that the Students should enter on the boards of a College—some College would probably be ready to afford special advantage to this class of Students—that they should be required to reside and attend Lectures for three or four Terms, as might be found necessary, that they should then pass an Examination in some Elementary Mathematics and in a certain number of the branches of Applied Science in which Lectures are given. After which they should receive the title of "Associate in Practical Science."

As no one should bear a University stamp without having shewn that he has received some general education, we further propose that Students should, either on admission or at some time previous to their presenting themselves for the final Examination, pass an Examination of the nature of those now held for the granting of certificates to persons not members of the University. Or if the Student had obtained a certificate in such an Examination previous to admission, this might be accepted instead of any further Examination in general subjects.

Students should, as I have before said, be allowed to keep their Terms at any intervals, but some restriction as to time would have to be made for those who should compete for any prizes or honours that might be awarded; for instance, that not more than three years should elapse between their coming into residence and their final Examination. I believe that

¹ It is proposed to apply the funds expended hitherto on the Travelling Bachelors to sending out men of science attached to exploring expeditions. This matter now rests with the Commissioners.

such a connexion between the University and our practical men of science would be very valuable; if the School became a large one, as we should hope it would, then, from having a large staff of eminent men here as teachers, this place would become the great centre of Practical Science, and Abstract and Applied Science growing side by side would greatly strengthen each other.

Moreover, it would be a great advantage for the young engineers for these studies to be pursued in company; not only would they benefit by the competition and the interchange of ideas, but in learning any experimental science a great deal of additional interest is gained, and greater facilities are obtained, by several joining together in fabricating a model, or in performing an experiment, or in carrying on Geological explorations. The comparatively solitary study of a workshop is one of its great disadvantages. Moreover young men here would meet with others who are not going to follow the same course, and this we believe to be a great advantage; for it is bad for youths to be plunged into a purely professional atmosphere at 16 years of age, and to remain in it for the rest of their lives, having no friends or connexions, but those who are to a certain extent their professional rivals. We believe, then, that the profession generally would benefit in social estimation if a University education even of the kind we have named, were to become the usual approach to it.

It would happen too, that some of the abler young men on coming here and feeling their strength, would desire to pursue the highest branches of Mathematical Science, and these might pass the Previous Examination, and enter on the ordinary course, with a view to high Honours and the consequent emoluments. Indeed it frequently happens on examining Schools that very promising lads of a scientific turn are found to be intended for Civil Engineers; the presence of such within the range of our influence, and within view of the Honours and emoluments of this place, could not fail to be beneficial to the University.

This plan, as has been said, is put forward with the view of attracting attention to the subject. No doubt, with the example of failures elsewhere before it, the University may well ask for some evidence of a likelihood of success before it enters on a costly undertaking; it is much to be desired then that any persons engaged in Civil Engineering, or interested in the matter, should offer suggestions on this scheme, and give their opinion as to the prospects of this proposed Cambridge School of Practical Science¹. H. L.

¹ Messrs MACMILLAN and Co. will be happy to take charge of any communications on this subject.

VI. ON THE AGE OF ENTERING AT THE UNIVERSITY WITH ESPECIAL REFERENCE TO THE INDIAN EXAMINATION.

MOST persons who have occupied themselves with the subject of University Extension have concluded that for us to increase our numbers it must become usual for our Students to enter somewhat earlier than they now for the most part do. An education which even with our reduced period of residence keeps a man occupied until he is 22, is too costly for a large class of persons who would gladly avail themselves of it, if it were concluded at 20 years of age.

But it may be asked, What is it which prevents persons from entering earlier? College tutors do not object to it, they would in general rather have to do with a freshman of 17 than one of 20; the former class have generally come direct from school, they are amenable to discipline and easy to mould to the tone and habits of this place, while a young man who has been to a great degree his own master for two or three years is sometimes difficult to deal with, and is apt to feel that he is in a certain degree coming back to school again, from having to submit to the necessary restraints of the University.

At present, there are always some who enter at seventeen, and my experience of such Students has been satisfactory.

There is however one provision in our University regulations which fully justifies the parents of promising youths in keeping them back, and which regulation might I think be modified with advantage; I allude to the rule by which a person who wishes to be a Candidate for Honours is bound to present himself after a certain number of terms' residence whatever his age may be. Thus a parent says naturally, "Since when I have entered my son he can only have a certain further time for preparation for his Degree, I must, to do the best for him, have him got on as far as possible with his reading before he enters, and I must not put him at the disadvantage of starting at 17 to compete with men who enter at 19." This reasoning is perfectly just, and it operates very largely.

It is well worth our consideration whether we might not take some steps to prevent men who enter early being at this disadvantage—and really the disadvantage is becoming more serious every day—for young men now frequently come up rather late, having gone through a whole course similar to that

we have here, in the hands of Cambridge instructors, either in private or in some of the Universities where the Mathematical Professors are Cambridge men; and these virtually profit by almost a double period of University training. Now though it must be allowed that it is desirable for the generality of Students of the same year to proceed in Honours at the same time, yet no unfairness can arise from an exception being made of the following nature.

That no person shall be prevented from presenting himself as a candidate for Honours at any Examination by reason of his standing in the University if he have not attained the age of twenty-one years when he so presents himself.

Moreover, by the change in the Regulations for the Indian Examinations a candidate cannot present himself who is more than 22 years of age, on the 1st of May preceding the Examination which is in July. Hence, those whose birthdays fall between the 1st of October and the 1st of May, cannot at present compete for these appointments after going through their course here in Honours, unless they enter before they are 18.

Now many of the abler men when they enter are undecided as to whether they shall look to an Indian appointment or to a Fellowship, and they will be in this dilemma, either they must enter so early as to hurt their prospects of a place in the Tripos, or they will have to go in for the Indian appointment, if they decide on doing so, while undergraduates, which will prevent their benefiting by the most valuable part of the University course, as far as the fitting men for examination is concerned, namely, the condensation and assimilation of their knowledge which results from their final preparation for the Senate-House; and which will, moreover, interrupt their reading, so as much to lower their place in the Honour classes. The same age is fixed in the regulations for the new competitive Examination for Civil Engineering Appointments in India, and thus the class of men to whom these remarks apply is likely to be extended.

Again, the Commissions in the Artillery and Engineers are to be obtained now by open competition, and 20 years of age is the superior limit. We can here, especially now that the School of Art affords the means of teaching drawing in all its branches, give very effective instruction for such Examinations, and a year or two at the University is an excellent preparation for young men entering the army; but it discourages such persons from coming here, to find that, if they decide on remaining, they will be obliged to contend in the Tripos with persons who have had a considerable start in the race. From

the terms of the Grace appointing a Syndicate to consider the cases of such persons as have degraded, it appears that an absolute discretion rests with them, and that they may, if they please, grant the required leave on the score of youth, but they would hardly like, without some expression of opinion on the part of the Senate, to deviate from the practice which has confined this permission to cases of illness.

It is desirable then that this point should be discussed, and that if public opinion is favourable to such a relaxation of the rule, that a Grace of the Senate should be passed on the point; or, at any rate, that some public notice should be given, that an additional period of study will be allowed to those who are not 21 years of age, at the time when under the existing rule they would be bound to enter the lists for Honours, if they meant to do so at all.

H. L.

VII. UNIVERSITY INTELLIGENCE.

REGULATIONS FOR PROCEEDING IN PHYSIC,

Confirmed by Grace of Senate, Feb. 17, 1859.

1. That the Regulations confirmed by Grace of the Senate June 1, 1821, February 27, 1829, March 5, 1834, April 1, 1841, May 5, 1847, May 2, 1854, and May 23, 1855 be hereby repealed.

BACHELOR OF MEDICINE.

Time to be spent in Medical Study.

2. That five years of Medical Study be required of Candidates for the degree of Bachelor of Medicine, with the exception of Students who have graduated as Bachelors of Arts, in whose case four years of Medical Study shall be deemed sufficient.

3. That of the time required to be spent in Medical Study six terms be so spent in the University, commencing not earlier than after the expiration of the first three terms of residence, provided that four terms so spent shall suffice in the case of any B.A. who shall have taken an Honor in the Mathematical, Classical, Natural Sciences or Moral Sciences Tripos.

Examinations.

4. That there be two Examinations for the degree of Bachelor of Medicine; and that the first Examination may be passed by the Student after the completion of three years of Medical Study, of which the portion required in his case has been so spent in the University, and the second after the completion of his course of Medical Study.

Subjects and course of Study previous to the first Examination.

5. That the Student before admission to the first Examination be required to produce certificates of diligent attendance on one course at least of lectures on each of the following subjects :

Chemistry, including manipulations,
Botany,
Elements of Comparative Anatomy,
Human Anatomy and Physiology,
Pathology,
Materia Medica and Pharmacy.

And that he also produce a certificate of having practised dissection during one season at least.

The certificates must shew that the Lectures on Pathology were attended subsequently to those on Chemistry and Human Anatomy and Physiology, and the Lectures on Materia Medica and Pharmacy subsequently to those on Chemistry and Botany.

6. That, as evidence of Medical Study in the University, every Student be required to produce Certificates of diligent attendance in each term on courses of Lectures on some two of the following subjects : viz.

Chemistry,
Botany,
Human Anatomy and Physiology,
Comparative Anatomy,
Materia Medica and Pharmacy,
Pathology.

Or of diligent attendance in each term on a Course of Lectures on some one of those subjects, and *also* on the Medical Practice of Addenbrooke's Hospital.

Certificates of Lectures on any of the above subjects to be deemed satisfactory if the Lectures be delivered either by a Professor of the University, or by some Graduate of the University approved by the Senate; provided that the Course, in each case, consist of not fewer Lectures than shall have been determined on by the Board of Medical Studies.

Subjects of the first Examination.

7. That the subjects of the first Examination be

Chemistry,
Botany,
Elements of Comparative Anatomy,
Human Anatomy and Physiology,
Materia Medica and Pharmacy,
Pathology,
Celsus—The Aphorisms and Epidemics of Hippocrates—
Aretæus on the Causes and Signs of Disease—portions of
these authors having been selected for examination by
the Board of Medical Studies in the year preceding that
of the Examination.

Examiners of the first Examination.

8. That the Examiners for the first Examination be as follows :

In Chemistry, Botany, and Comparative Anatomy, the Professors of Chemistry, Botany and Anatomy respectively, with one additional Examiner for each Professor to be appointed by Grace of the Senate.

In the remaining subjects of Examination,

The Regius Professor of Physic,

The Professor of Anatomy,

A Doctor of Medicine, being a Member of the Senate, nominated annually by the Board of Medical Studies, and elected by the Senate.

Additional Subjects of Study, previous to the second Examination.

9. That before admission to the second Examination, the Student be required to produce certificates of having attended one course at least of lectures on each of the following subjects:

Clinical Medicine,
Clinical Surgery,
Medical Jurisprudence,
Obstetrical Medicine.

Subjects of the second Examination.

That the subjects of the second Examination be
Pathology and the Practice of Physic,
Clinical Medicine,
Medical Jurisprudence,
The medical treatment of Surgical and Obstetrical Diseases.

Examiners for the second Examination.

10. That the Examiners for the second Examination be
The Regius Professor of Physic,
The Downing Professor of Medicine,
A Doctor of Medicine, being a Member of the Senate,
nominated annually by the Board of Medical Studies, and
elected by the Senate.

Time of the Examinations.

That the first and second Examinations for the degree of Bachelor of Medicine take place each twice annually, first in the week immediately succeeding that in which the division of the Michaelmas Term falls, secondly, in the week immediately succeeding that in which the division of the Easter Term falls.

Mode of Conducting the Examinations.

That the Examinations be conducted principally by written questions, to which the persons examined be required to give answers in writing.

Hospital Practice.

That the Candidate for the degree of Bachelor of Medicine be required to produce certificates of having attended Hospital Practice during three years.

Public Exercise in the Schools.

11. That the act required to be kept by the Candidate for the degree of Bachelor of Medicine be not kept till after he has passed his Examinations for that degree.

Time of admission to the degree of Bachelor of Medicine.

That the Student of Medicine whether B.A. or not may be admitted to the degree of Bachelor of Medicine in the eleventh term after the completion of his first term of residence.

Inauguration.

(1) That the Inauguration of Bachelors of Medicine and perfecting of their degree in every year be on the day of the *Magna Comitia*.

(2) That at the Inauguration the names be arranged in order of seniority as follows:

(a) Persons who have been Bachelors of Arts, arranged alphabetically.

(b) Other Bachelors designate of Medicine, arranged alphabetically.

DOCTOR IN MEDICINE.

Time to be spent in Medical Study.

12. That all persons proceeding to the degree of Doctor of Medicine, be required to produce certificates of having been engaged in Medical Study during five years.

Examinations and Hospital Practice.

13. That Masters of Arts, proceeding to the degree of Doctor of Medicine, be required to produce the same certificates of attendance on Lectures and of attendance on Hospital Practice, and pass the same examinations as are required for the degree of Bachelor of Medicine.

Exemptions in favour of those Persons who have obtained Honors in the Natural Sciences Tripos.

14. That, in the case of every person who has obtained Honors in the Natural Sciences Tripos and has passed with distinction or to the satisfaction of the Examiners for that Tripos the Examination in Botany, Chemistry or Comparative Anatomy, the Examiners, if required, shall give to such person a certificate, stating that he has passed the Examination in such subjects; and that Candidates for the degree of Bachelor of Medicine, or of Doctor of Medicine, possessing such certificates shall not be required to be examined again in those subjects to which the certificates relate.

Certificates.

15. That all certificates required for the degree of Bachelor of Medicine and for the degree of Doctor of Medicine be delivered to the Regius Professor of Physic before admission to examination for those degrees.

Deputy Examiners.

That in case any of the *ex officio* Examiners for Medical degrees be prevented by illness or other reasonable cause from taking part in such Examinations, it be competent for him to appoint a Member of the Senate to examine in his stead, subject to the approbation of the Vice-Chancellor; with the proviso that

in the case of either the Regius Professor of Physic or the Downing Professor of Medicine appointing a deputy, such deputy be a Doctor of Medicine.

Appointment and Salaries of the Additional Examiners.

That the Election of the additional Examiners for the Degree of Bachelor of Medicine take place at the first Congregation after the first of October in each year.

That each of such Examiners receive ten pounds annually from the University Chest.

Medical Study out of the University.

16. Medical Study out of the University, shall in all cases be understood to mean study at some well-known School of Medicine, which has been recognized by the Board of Medical Studies.

It shall be the duty of the Board to define from time to time what shall be sufficient evidence of such Medical Study.

REPORT OF THE BOARD OF THEOLOGICAL STUDIES.

Dec. 30, 1858.

The new Plan of Theological Examinations, adopted by the Senate in December, 1854, having now been in operation for three years, the Board of Theological Studies beg to lay before the Vice-Chancellor, as the result of their experience during that period, the following Report:

I.

They desire, in the first place, to express their conviction that the present system has, to a great extent, promoted the important objects for which it was established. While it has not interfered with the general course of Academical Studies, it has tended to raise the standard of Theological attainments, and thus to prepare Candidates for Holy Orders, who, it must be remembered, form the majority of students in the University, to discharge with greater intelligence and efficiency the duties of the Christian ministry.

The addition of the Honour Tripos has supplied a stimulus, which, though acting upon a comparatively small number of students, has been found to promote a deeper study of Theology by encouraging a spirit of criticism and research.

II.

A. There are however some alterations, which it appears to the Board might be made with advantage.

1. And, first, experience has shewn that it is not desirable to require a knowledge of the whole of the Greek Testament from

Candidates for the Ordinary Examination. Inferior Scholars have regarded it as hopeless to give due attention to all parts of so long a subject, and have too often only attempted to acquire a partial knowledge of unconnected passages: even men of larger acquirements have not always found time for a closer and more accurate study of the whole.

The Board therefore beg to suggest that henceforth a portion of the Epistles, varying from year to year, be selected; and that the Four Gospels and the Acts, together with such portion of the Epistles, form the subject for each year's Examinations.

2. They beg to suggest, in the second place, that with a view to enlarge the knowledge of Early Ecclesiastical History, the portion to which the Examination applies shall extend to A.D. 451, and thus embrace the important period which closes with the Fourth General Council.

3. They beg further to suggest that, as there is so much in common between the History of the English Reformation, and the Liturgy of the Church of England, these two subjects be comprised in one paper on the Wednesday afternoon.

4. If proposals (2) and (3) be adopted, they would further recommend, that the hours from nine to eleven on the Thursday be assigned to the paper on Early Ecclesiastical History, and that the hour from eleven to twelve on the same day be assigned to the Examination of Candidates for Honours in a further portion of Church History, or in the History of some particular Doctrines, such portion varying from year to year, and to be selected under the same regulations as the other additional subjects for the Honour Examination.

B. The subject of compulsory attendance at the Lectures of the Professors has received the attentive consideration of the Board.

According to the existing system, every Student, who presents himself for the Theological Examination, is obliged to have "attended the Lectures delivered during one Term at least by two of the three Professors of Divinity."

It has been found by experience that this regulation is attended with serious inconvenience both to the Professor and to his Class. Young men of different habits and attainments are brought together in such large numbers, that the Professor has found it almost impossible so to adapt his Lectures as to meet their different requirements, and to engage the attention of all.

Still it is believed that the system has not been without its advantages. Many, who would not otherwise have attended Divinity Lectures, having been obliged to do so, have availed themselves of the opportunity of commencing a course of Theological Study.

On the whole the Board are disposed to recommend, that each Candidate for the Theological Examination be required to attend

only one course of Lectures, but to pass an Examination in the substance of those Lectures.

C. The Board are further of opinion that the advancement of Theological Study is greatly hindered by the want of a Divinity School. The two rooms now used for Theological Lectures, neither of which is convenient for the purpose, are often required for other University business; which in a great measure prevents the Professors of Divinity from having that personal communication with the members of their classes which it is desirable to promote.

D. In reference to the most important and most difficult of the subjects upon which they have deliberated,—the Establishment of some regular system of Theological training for Candidates for Holy Orders,—the Board are not prepared at present to offer any detailed suggestions.

They desire, however, to state generally, that after having weighed the arguments that have been urged against a prolonged residence in the University, they are still impressed with the conviction that the advantages afforded by this place for a School of Theology, and the facilities it offers for securing the services of efficient Teachers, are such that they ought not to be overlooked. They therefore take this opportunity of expressing their opinion, that means ought to be devised by which those Students who have passed the final Examination for the Degree of B.A. may be enabled to avail themselves of a Course of Systematic Teaching in the Interpretation of Scripture, and in the more important branches of practical Theology.

The following Graces of the Senate having reference to the above Report, were passed at a Congregation held on the 3rd of March last.

That all Students, presenting themselves for examination, shall be examined in the following subjects, viz. the Historical Books of the Old Testament, the four Gospels and the Acts of the Apostles and a selected portion of the Epistles in the original Greek, the Articles of Religion and the Liturgy of the Church of England, Ecclesiastical History of the first three Centuries, and the History of the Reformation in England, and that no one be deemed to have passed the Examination, whether a Candidate for Honours or not, who has not shewn a competent knowledge of all the said subjects. Public notice of the portion of the Epistles selected for the Examination in any year shall be given by the Board of Theological Studies in the first week of the Lent Term in the preceding year.

That all Students presenting themselves for examination shall be required to produce certificates of having attended the lectures delivered during one term at least by one of the Professors of Divinity.

That this alteration take effect at the Examination which will be held at Easter, 1860.

EXAMINATION OF STUDENTS NOT MEMBERS OF THE UNIVERSITY.

Regulations for the Year 1859.

The alterations from the Regulations for 1858 which were given in the First number of *Occasional Papers* are as follows :

General Regulations.

The Examinations for 1859 will commence on Tuesday, December 13.

Marks of distinction will be attached to the name of any candidate who may especially distinguish himself in particular parts of the Examination.

After the name of every Student will be added his place of residence, the School (if any) from which he comes to attend the Examination, and the name of his Schoolmaster.

Examination of Students who are under 16 years of age.

PART I. No alterations.

PART II.

There is a verbal alteration in the Prefatory observations, the object of which is to convey clearly that though every candidate whose parents do not object to his being examined in religious knowledge must take Section I. as one of the Subjects of Examination, yet failure in that will not be fatal, if he pass in the requisite number of subjects.

Section 1. For "The Gospel of St Matthew and the Acts of the Apostles," read "The Gospel of St Luke."

Section 2. For "English History from the battle of Bosworth to the Restoration," read "English History from the Accession of James I. to the death of Anne."

Section 3. For Sallust's *Bellum Catilinarium* and Virgil's *Æneid*, Book VI. read Cæsar, *de Bello Civili*, Lib. I. and Virgil's *Æneid*, Book II., with questions on Grammar and Parsing.

Section 4. For Xenophon's *Anabasis*, Book II. and Homer's *Iliad*, Book VI. read *Ibid.* Book III. and *Ibid.* Book XVIII., with questions on Grammar and Parsing.

Section 5. No alteration.

Section 6. For Lessing's *Fables*, read Schiller's *William Tell*.

Sections 7, 8, 9. No alteration.

Section 10. For British plants and parts of plants, read plants and parts of plants.

PART III. This stands thus.

Students may also offer themselves for Examination in

1. Geometrical and Mechanical Drawing, and Linear Perspective.
2. Drawing from the Flat, from Models, from Memory.
3. Music—A clear knowledge of Harmony up to the inversions of the dominant seventh will enable Students to pass in this section; but all exercises in Harmony must be written for the usual voices of a Choir and in the suitable Clefs; Soprano, Alto, Tenor and Bass.

Examination of Students who are under 18 years of age.

PART I. Writing from Dictation—omitted.

PART II.

Every Student must satisfy the Examiners in three at least of the Sections marked A, B, C, D, E, F, G, or in two of them, and in one of the Sections marked H, I.

Section A. No alteration.

Section B. 1. English History, from the accession of James I. to the death of Anne; and the outlines of English Literature during the same period.

2. Shakspeare's *Julius Cæsar* (Craik's edition).

3. The outlines of Political Economy, not including Currency, International Trade, and Taxation:

4. English Law: the examination will not extend beyond the *subjects* treated of in the first volume of Blackstone's *Commentaries*.

5. Physical, Political and Commercial Geography.

A fair knowledge of one of these five divisions will enable a Student to pass in this section.

Section C. Now contains Latin and Greek only.

In the Latin the subjects are Livy, Book VII. and Horace, *Sat.* Book I.—In Greek, the *Apology* of Plato and the *Medea* of Euripides.

Section D. Now contains French and German.

In French the subjects are: Molière's *Misanthrope* and Mignet's *History of the French Revolution to the death of Robespierre*.

In German: Schiller's *History of the Revolt of the Netherlands* and Goethe's *Iphigenia*.

Section E. This contains the subjects which were given under Section D last year, only Optics is omitted, as is also the description of Astronomical Instruments and Nautical Astronomy.

Section F. Corresponds without alteration to Section E of 1858.

Section H. Corresponds to Section G of 1858, excepting that for History and principles of the Arts of Design, *read* History of Painting in Italy to the Middle of the Sixteenth Century.

Section I. Music: A knowledge of the elements of Harmony and Musical composition will be required, in order that a Student may pass in this section.

Questions will also be set upon the history and principles of the art.

An Examination will be held in any place where it can be ascertained that there will be thirty Candidates for Examination.

Local Committees, wishing to have examinations held in their several districts, may obtain all necessary information from the Honorary Secretary to the Syndicate, H. J. Roby, Esq. St John's College, Cambridge.

Applications from Local Committees for Examinations to be held in their districts must be made on or before October 1, and the probable number of Students to be examined must be then stated. The names of such Students must be sent to the Hon. Secretary on or before November 1, 1859, together with statements of the subjects in which they will offer themselves for examination.

The fees for all Students must be paid on or before November 1, 1859.

Several of the places at which these Examinations were held in December last have already signified their wish to be again Local Centres for the Examinations of 1859, and some other towns have also taken steps for the like purpose.

In some cases arrangements have been made between towns in the same part of the country, that the Oxford Examination should be held at one in the summer, and the Cambridge Examination in December at the other. A very general opinion prevails, that it entails a great waste of power for both Universities to examine in every year, and that it would be better for each University to examine in alternate years only. It appears, however, that the Oxford Statute fixed the outlines of their scheme for three years, and that therefore no such arrangement can be hoped for until after the expiration of this period.

No obstacle to the harmonious co-operation of the sister Universities in this work has ever arisen, or is likely to arise, on the part of Cambridge.

The subject of the Examination of Schools by the University as proposed by Mr Markby in our last number still occupies attention. The Grace by which the Syndicate for carrying on the Local Examination was appointed does not empower them to extend their action in the way contemplated, but if there appeared to be a general desire for such Examination, the requisite powers

would no doubt be promptly conferred. If therefore such a number of schools or schoolmasters were to memorialize the University, or the Syndicate, as to warrant the University in drawing up a scheme, and engaging persons to act as Examiners, there would be every probability of such system being soon organized.

A Report on the late Examination, with tabulated results, is in preparation, and will shortly appear. It will be obtained at the Cambridge Warehouse, 32, Paternoster Row, London, where the Examination Papers for 1858 may also be had.

NOTICES OF COLLEGE SCHOLARSHIPS AND EXHIBITIONS TO
BE OBTAINED BY COMPETITIVE EXAMINATIONS PRE-
VIOUS TO COMMENCING RESIDENCE.

CHRIST'S COLLEGE, *December* 13, 1858.

There will be an Election of Scholars at this College on *Saturday*, June 18, 1859 from Students who intend to commence their residence in October next.

The Examination will commence on *Wednesday*, June 15, 1859.

SUBJECTS:

Euclid.

Algebra; so far as is required for the University Previous Examination.

Plane Trigonometry; so far as the solution of triangles, inclusive.

Conic Sections, treated geometrically.

Demosthenes *de falsa Legatione*.

Horace's *Epistles*.

Passages from other Classical Authors will also be proposed for translation.

Latin and Greek Composition.

A *fair* proficiency in translation of English into Latin Prose will be deemed essential.

No one will be eligible at this Election, whose name is or has been on the Boards of any other College, except Christ's College, or who has kept any terms by actual residence.

Every Candidate must send his name to the Master on or before *Wednesday*, June 8, 1859, and (if not already admitted of Christ's College) the date and place of his birth, the names and residence of his parents, and a certificate of good conduct and character from a Graduate of the University or a Beneficed Clergyman.

Candidates must present themselves in the College Hall, on *Wednesday* morning, June 15, 1859, at Nine o'clock.

The value of each Scholarship is 15s. weekly with £7. 10s. a year, during residence.

TRINITY HALL, *January 20, 1859.*

An Election to two Exhibitions at this College of the values of £50 and £40 respectively will take place during the next Easter vacation. The Examination will commence on Tuesday the 26th of April; it will be open only to persons who are not members of the University, and who are under 20 years of age.

In the case of every Candidate a certificate of his age from his parents or friends, with a testimonial to his moral character from the Master of the School at which he has been educated, should be forwarded to the Rev. H. Latham, Senior Tutor of Trinity Hall.

The Examination for the Exhibitions will occupy three days; it will comprise Greek and Latin translation and composition, English composition, Euclid, Algebra, Trigonometry, Conic Sections, treated either Analytically or Geometrically and Elementary Statics. The Examiners will be at liberty to award one or both of the Exhibitions on the ground either of general proficiency or of high attainments in a single branch of study.

The successful Candidates will commence residence in October next, and the Exhibitions will be tenable for twelve months from that time. In June 1860 there will be an Examination for the College Scholarships, varying in value up to fifty guineas, which will be open to the Exhibitioners as well as to the other members of the College, who commence residence with them. The Scholarship Examination will be mainly in the subjects of the Classical and Mathematical Lectures of the first year.

Those Candidates who are not accompanied by their friends will, as far as practicable, be accommodated in the College¹. They will be considered under the charge of the authorities, will dine in Hall, and be supplied with all they require in the same way and on the same terms as Undergraduates.

PEMBROKE COLLEGE, *March 16, 1859.*

An Election to three Scholarships at this College, of the values of £60, £40, and £20 respectively, will take place in June next. The Examination will commence on Tuesday, the 21st of June: it will be open only to persons who have not commenced residence in the University, and who are under 20 years of age.

In the case of every Candidate a certificate of his age from his parents or friends, and a testimonial to his moral character from the Master of the School at which he has been educated, must be forwarded to the Rev. J. Power, Tutor of Pembroke College, before the 1st of June.

¹ Accommodation in College will be allotted according to priority of application.

The Examination for the Scholarships will occupy three days; it will comprise Greek and Latin Translation and Composition, Euclid, Algebra, and Trigonometry. The Scholarships will be awarded on the ground either of general proficiency or of high attainments in a single branch of study.

The successful Candidates must commence residence in October next, and they will hold their Scholarships from Michaelmas next until they are of standing to take the B.A. degree. In June, 1860, and in each of the subsequent years, there will be another Examination of all the Undergraduate Members of the College, at which other Scholarships¹ of the same values will be given, and the same person will be capable of holding a Scholarship of £20 in addition to one of £40 or £60.

Those Candidates who are not accompanied by their friends will, as far as possible, be accommodated in College. They will be considered under the charge of the authorities, will dine in Hall, and be supplied with all they require in the same way and on the same terms as Undergraduates.

¹ The Open Scholarships belonging to the College are :

Eight of £60 per annum.

Six of £40 „

Six of £20 „

Subjects for University Examinations. 1860.

SUBJECTS FOR THE B.A. DEGREE, IN ADDITION TO THOSE FIXED.

Easter Term 1859, and two following Terms.

The Hippolytus of Euripides.

The Agricola of Tacitus.

Easter Term 1860, and two following Terms.

Herodotus, Book III.

Juvenal, *Satires III. and X.*

SUBJECTS FOR THE GENERAL PREVIOUS EXAMINATION.

The Gospel of St Mark.

Paley's Evidences of Christianity.

The Elements of Euclid, Books I. II. III.; and Arithmetic.

The *Andria* of Terence.

Xenophon's *Anabasis*, Books I. and II.

SUBJECTS FOR THE CHANCELLOR'S MEDAL FOR LEGAL STUDIES.

I. Roman Law.

The Law of Obligations and Contracts as developed in the 3rd Book of Gaius' *Commentaries* and the 3rd Book of Justinian's *Institutes*, and explained in Mackeldey's *Systema Juris Romani* and Sandars' *Commentary*.

II. English Law.

(a) Story on Bailments.

(b) Broom's *Commentaries on the Common Law of England*, Book IV.

III. English History.

The reigns of Elizabeth and James I. (with special reference to Hume, Lingard, and Hallam.)

IV. International Law.

Kent's *Commentaries*, Vol. I. Part I.

Wheaton *On the Right of Search*.

SUBJECTS FOR CANDIDATES FOR HONORS FOR THE DEGREE OF LL.B.

I. Roman Law.

Digest, Book XXX. Title I.

Commentaries of Gaius, Books I. & II.

Institutes of Justinian, Book II.

Cicero *pro Cæcina*.

} for translation.

II. English Law.

(a) *Outlines of Equity*—Haynes.

(b) Blackstone's *Commentaries* (Kerr's Edition), Vol. I.

III. Constitutional History.

(a) From the peace of Utrecht to the peace of Versailles, (with special reference to Hallam's *Constitutional History*, Lord Mahon's *History of England*, and Junius' *Letters*).

(b) *State Trial of John Wilkes for a Libel against the Government*. See Howell's *State Trials*, Vol. XIX. pp. 981 & 1075. 2 Wilson's Reports, 159. 4 Burrows' Reports, 2527.

IV. International Law.

(a) Wheaton's *Elements*, Parts III. & IV. (*International Rights of States in their pacific and in their hostile relations*.)

(b) *Treaty of Aix-la-Chapelle*.

SUBJECTS FOR STUDENTS NOT CANDIDATES FOR HONORS.

I. Roman Law.

Digest, Book I. Title II.
Institutes of Justinian, Books I. & II. } for translation.

II. English Law.

Warren's *Blackstone*,
 Chaps. iii. to xvi. inclusive,
 — xlii. to lxiv. —

III. English History.

Hallam's *Constitutional History from the time of the Revolution to the end of the Book*.

REGISTRATION OF MEMBERS OF THE SENATE UNDER THE
NEW STATUTES.

PERSONS who have taken the Degree of M.A., but who have removed their names from the boards of their College, may, either by replacing them on the same, or by entering them on the University Register (for which purpose application should be made to the Registry of the University) obtain their votes as Members of the Senate. They will have to pay the sum of six shillings for every year during which their names have been off the boards. Such persons cannot exercise the right of voting until their names have been 180 days on the Register.

Bachelors of Laws of three years' standing may proceed to the Degree of LL.M. by which means they will obtain a vote in the Senate. If their names have been removed from the boards they will have to make the payments mentioned above in the case of Masters of Arts.

For full information on the Method of Proceeding to Degrees in Arts and Laws, see *Occasional Papers*, No. I.

3.
OCCASIONAL PAPERS

ON UNIVERSITY AND SCHOOL MATTERS;

TOGETHER WITH

FULL INFORMATION AS TO THE LOCAL
EXAMINATIONS AND RECENT
UNIVERSITY CHANGES.

No. III.

December, 1859.

MACMILLAN AND CO.

CAMBRIDGE:

AND 23, HENRIETTA STREET, COVENT GARDEN, LONDON.

1859.

OCCASIONAL PAPERS

ON UNIVERSITY AND SCHOOL MATTERS.

With Contributions by the Rev. HENRY LATHAM, W. L. BIRKBECK, M.A. the Rev. T. H. MARKBY, the Rev. W. M. CAMPION, the Rev. Professor ELLICOTT, the Rev. JOS. B. MAYOR, C. CARDALE BABINGTON, M.A. the Rev. C. A. SWAINSON, W. HOPKINS, F.R.S. the Rev. J. S. HOWSON, M.A. &c. &c.

ADVERTISEMENT.

THE Establishment of the New Examinations for those who are not Members of the University has very much widened the class who take an interest in our proceedings, and there are many who would be glad to know with regard both to this measure and other questions and changes affecting the University, not only what has been done, but also what we hope to do, as well as the views with which the University has acted, and the state of opinion here upon important Educational questions.

It is felt that the University and the Schools could cooperate more effectually if there were some means of giving publication to valuable suggestions from without, and explaining our own difficulties and intentions and prospects.

The recent changes have been also so considerable that some complete account of the method of proceeding to the various degrees is much called for. It is the object of this publication to meet these wants for the present; circumstances must determine whether it shall be regularly continued, and if so what form it should assume.

For Contents of Nos. 1 and 2 see third page of Cover.

I. REMARKS ON COMPETITIVE EXAMINATIONS,

PARTICULARLY ON THE EXAMINATION FOR APPOINTMENTS
IN THE INDIAN CIVIL SERVICE.

MR EDITOR,

Competitive examinations have become matters of so much interest and importance not only to those whose future success in life may immediately depend upon them, but to the public in general, that I venture to address to you a few remarks on the subject, as one who has had some recent experience in a leading branch of such examinations—that for the Civil Service in India.

It may seem marvellous in our eyes that men of education and intelligence should ever have opposed themselves to the notion that a good education may constitute a most valuable qualification for the performance of ordinary official duties. And yet we well know how much opposition of this kind the system of competitive examination has had to contend with, and that even recently a nobleman of official distinction has ventured to justify the most vulgar mis-spelling—that indubitable sign of low intelligence—as no disqualification for the duties of what has been usually regarded as one of the most important branches of the public service. That the dispensers of patronage should look upon the new system with suspicion, and endeavour to depreciate it, is not a matter to excite our wonder, but that a similar course of opposition should have been pursued by a considerable portion of the press, and of that part even which prides itself on the liberality of its general views, has always appeared to me a singular proof either of subservience to party feelings, or of ignorance of the influence likely to be exercised by the competitive system. The arguments most frequently, perhaps, insisted on by these opponents is, that the tests afforded by such examinations are very imperfect tests of that power which the selected candidates will be called upon to exercise in their future administrative capacities; and that we are thus more likely to introduce *book-worms* into Her Majesty's service than practically useful men of action. This objection rests on an entire misconception as to the class of men to whom preference is given in the existing examinations, as I pointed out some years ago in a letter addressed to the Editor of the Times. Men essentially

devoted by natural predilection to the abstract pursuits of literature or science are exceedingly few, and of all men are, perhaps, least likely to be attracted by the kind of rewards which these competitive examinations open to them, and for the duties of which their strong and peculiar bent of mind might undoubtedly, in many cases, disqualify them. But there is also a much larger class of men on whom such objectors as above alluded to probably look with great suspicion—men who though not so peculiarly devoted to abstract intellectual studies, as to fall under the designation of *book-worms*, do still distinguish themselves in such studies in early life at our public schools or universities. But these again constitute a class of men for whom these official attractions have little charm, because they usually look forward to the Church or the Bar, to the Universities or our Public Schools, as likely to furnish them with employment possibly more lucrative, and at all events more to their individual tastes, than the routine of official duties. Comparatively few of these men will ever present themselves in these competitive examinations, except in a certain number of cases in which some department of the government service (as the Indian Civil Service) may present an earlier prospect than could otherwise be hoped for of gratifying the domestic tendencies of those who may feel that single blessedness is not the greatest blessedness that even early life may afford us. I wish the prizes offered were such as to draw more men of the class I am speaking of into this field of competition. At present the best competitors will be found in that class which, in intellectual power and acquirement, comes next in order after the one above mentioned. Such men may be considered as largely represented in our universities. They are young men who obtain good academic distinction, but not quite good enough to secure to them the more permanent academic emoluments. To such men the Indian Civil Service offers important rewards, provided always they are prepared to make the sacrifice (which seems every year to be made with less and less hesitation) of leaving their own country. And well may the well-wishers of effective government rejoice in any scheme which secures the services of these men. Many of them possess a large portion of sound practical sense rather than of the highest abstract intellect, united with habits of industry, and high moral feeling which cannot fail to render them generally valuable in any offices of trust. In fact there is no office in which such qualities will not largely contribute to the due performance of its duties. I have no doubt that a large majority of those who have been appointed to the Civil Offices in India have been men of this description.

Though it was sufficiently obvious from the first that the great majority of the successful candidates in this examination would belong to this class, I still felt it to be a matter of interest in the last examination to observe also the general character of the other candidates. In casting one's eye over the class with which I was brought more immediately in contact—the mathematical class—one could not fail to observe the almost entire absence of that kind of look and manner which unmistakeably indicate the want of habitual association with persons in good society. And this observation was sanctioned by the individual intercourse with the members of the class afforded by the *vivâ-voce* examination. With very few exceptions they manifestly belonged to the educated classes of society. In general manners and bearing, they were equal to an equally numerous class which might be formed from the old universities. In fact it is quite manifest that the ultimate effect of these examinations for the Civil Indian Service will be to place the offices thus disposed of not only in the hands of the educated classes of this country, but also in the hands of many of the best educated of that class, and those who have been most subjected both to early mental and moral discipline, and have thus acquired habits of industry and application. It does not follow assuredly that even these qualifications for the practical business of life will insure a high order of administrative power, but the simple question before us is this—Is such power most likely to be found in those who possess these qualifications, or in those who possess them not?

It has been frequently urged that though by a system of examination we might select the men of highest literary and scientific attainments, or generally men of the best capacity, they might still be men whose early associations or vulgar habits would disqualify them for the positions they might thus obtain. The remarks above made respecting the general manners and appearance of those who present themselves as candidates, entirely, it is conceived, meet this objection as regards the Indian Civil Service. The appointments in question will certainly not be given on the present system to a *vulgar* class of men. But further, it has been said that men selected in this manner would be little likely to be skilled in athletic, manly, or equestrian exercises, and might thus be wanting in qualifications which might be very useful in their administrative duties in a country like India. It may be at once allowed that brain and muscle are not always meted out to man in direct proportion of the one to the other; but neither are they given to him in the inverse proportion. The man of active brain is often a man also of active muscles,

and it is not to be denied that brain may give an energy to action which can never be derived without it from the best trained muscular power, or the most adroit application of it. If the rifle and the sword were the characteristic implements of the Civil service of India, there might be some force in this argument. Let us hope that a better fate awaits that country than that which is implied in the notion of the importance of individual physical power in those to whom the practical details of its civil government is entrusted.

On the occasion of Sir John Lawrence's visit to Cambridge last midsummer, I availed myself of the opportunity of asking his opinion respecting the appointments in India by competitive examination. He highly approved of them. Under the old system, he said, a certain number of good men were appointed, but that there was an almost equal number who were nearly useless; whereas of those appointed under the present system, he had found none who were incapable of being placed in some position of great utility. This is high praise from such authority, especially when we recollect the probability that a considerable proportion of those who would have obtained the Indian appointments under the old system will equally obtain them under the new, while the useless drones will be inevitably excluded. Sir John said he was aware that sundry objections had been made at home against the new system, and alluded to that above mentioned respecting the want of equestrian accomplishments, or others of the same kind. He allowed it might be true that every man now sent out on the Civil Service might not sit a horse as if he had been cradled in the saddle, but still it *was* possible to give a man a better seat on horseback than the equestrian art had previously taught him, but it was *not* possible to give him more brains than nature had originally vouchsafed to him. In fact, he said, he had never had any difficulty in finding a useful post for a man who possessed ability; a stupid one was useless.

The competitive examinations for the Indian Civil Service is the most important of those established by the Government, both with reference to the subjects which they embrace, and the value of the appointments obtained by them. The *written* part of the mathematical examination (of which alone I here speak) is conducted in a manner exactly similar to that in which our own Senate-house examinations are conducted; and the general character of the questions in the one case is very similar to that in the other, though the examinations, when Dublin mathematicians have been examiners, have partaken almost necessarily somewhat of the distinctive character which

may belong to the mathematical tastes and tendencies of that University. And it is well that it should be so. But upon the whole, the course of mathematical reading in our own University is perhaps as good as any that can be followed, as a preparation for the written part of the Indian Civil Service examination, especially if some additional attention be given to the methods of treating certain analytical and geometrical questions, which are somewhat more largely employed in Dublin than at Cambridge. The extent to which the mathematical examination is carried is not yet well defined. At first it was pitched too high for the class of candidates who presented themselves, or are ever likely to present themselves. The last two years it has borne much the same relation to that of our Senate-house papers as the mathematical acquirements of seventh or eighth may bear to those of first or second wranglers. I am satisfied however that it is still too high; for though there have been a considerable number of candidates who have taken the honor of seventh or eighth wrangler, or who would have been qualified to do so, I was convinced that the higher questions in Mixed Mathematics in the late examination, (and I believe my coadjutor found it the same in the Pure Mathematics) were of little use in deciding the relative merits of the candidates. Nearly every question was answered more or less perfectly by some one or other of them, but the answers in general in the higher subjects were such as to indicate that mere superficial acquaintance with them which ought to be as much as possible discouraged. There are other considerations also to which some attention is due. If the mathematical part of the examination be too high for the qualifications of the candidates, a proportionably smaller number of the marks assigned to the subject will be obtained, and the relative importance of mathematics in the whole examination to which the candidates are subjected, may be unduly lessened. And further, it should be borne in mind, that the object of these examinations is not to test the acquirements which might best qualify him for the duties of some scientific office for which high mathematical attainments might be essential, but to test those intellectual powers and habits of mind which may best qualify a man for the administrative duties of certain public offices. And such tests are infinitely better sought in the power of thought manifested by the candidate in subjects which he can grasp with a certain degree of facility, than in those more difficult subjects with which want of ability or want of time may have prevented his gaining more than a superficial acquaintance. These considerations, as well as those before mentioned, can hardly fail to

suggest themselves to any examiner, and will probably tend to reduce the mathematical portion of these examinations hereafter to a somewhat lower pitch than that at which they have hitherto been set. I have spoken in some detail on this point in the hope that should these remarks meet the eye of any future candidate for the Indian Civil appointments, they may afford some guidance for his mathematical reading preparatory to his examination.

In the framing of these examinations the Commissioners have introduced, and I think very wisely, a *vivâ voce* examination in addition to the written one. Twelve hundred and fifty marks were assigned to the whole of the mathematical subjects in the last examination, two hundred and fifty of which were given to the *vivâ voce* part. I was much struck with the difference between the performances of the candidates in this portion of the examination and the written portion. The style of the written answers of some of the better candidates was extremely good, combining frequently in a high degree the qualities of brevity and perspicuity, and indicating a perfect acquaintance with the best forms of written mathematical language. The natural inference would have been that men writing in that style would be able to expound their views orally at least with some degree of clearness and precision, if not with a ready fluency; but it was very far otherwise. Their performance was scarcely respectable. When questioned on some of the most elementary points, or on general principles, such as the Laws of Motion, Dynamical Definitions and Principles, or other fundamental points, the answers were in general obscure and indefinite. It might be supposed that this was owing to the nervousness of the candidates. It certainly was not so. The examination might have been public if any one had chosen to come and listen to it; but it did in fact assume the character of a private conversation, in which there was not in general the slightest indication of nervousness. The true reasons of the inferiority of the oral to the written answers was perfectly obvious. In the first place, in framing the written examination, those questions were excluded which might, as we conceived, be better asked *vivâ voce*, and this necessarily led to the choice of such written questions as might be most simply and briefly enunciated, and required for their solution more of the symbolical forms of expression, or the conventional language of mathematics. Such questions will generally have reference to more or less partial and limited aspects of the subjects to which they belong, and it is to these particular aspects that the attention of the student is usually, and too

often exclusively directed in the vicious system of teaching now too prevalent, of which the purpose is to prepare the student solely for written examinations. In such teaching his attention is chiefly directed to each individual proposition, and frequently only to one particular proof of it, while scarcely a thought is devoted to the logical sequence of the series of propositions which form a whole subject, and their mutual dependence on each other. There are numerous instances in our own university in which students are able to write out almost every proposition in a given mathematical subject with rapidity and accuracy, without being able to give any but a garbled and illogical view of the scope and bearing of the whole. These are the candidates who succeed in written examinations and fail in oral ones, for the latter are those which every experienced examiner would choose to test the candidate's general knowledge in contradistinction to that of a more detailed and fragmentary character. Again, another obvious cause of failure in oral examinations is the want of the habit in the student of arranging his thoughts in logical order, and also of seeking for the ready and appropriate oral expression of them. We all know how much is effected in this respect by habit and practice among our legal advocates, and the same may doubtless be effected in any other subject as well as in the law; and there are probably very few of those who are capable of acquiring clear ideas on any subject, who would not be equally capable of acquiring, at least, a certain facility and perspicuity in the oral expression of them.

The two causes now mentioned are the principal sources of failure in oral examinations, and not nervousness or comparative incapacity for this particular kind of examination; and of these a defective knowledge in reference to the more logical and philosophical views of the subject of examination, is by far the most influential. The candidate usually exhibits too much reading and too little thought. It is not that we should expect of a young student all that maturity of knowledge for the attainment of which *time* is so essential an element; what is complained of is, that there is so little of this maturity in proportion to the amount of ill-digested knowledge exhibited by the candidate, and the mental efforts by which it must have been acquired. It only requires a better direction of those efforts to correct the vice which taints almost every department of our educational system.

No one will doubt the value of digested, as compared with that of undigested knowledge; or will deny that the more we can lead the student to *think* for himself, the higher will be the mental discipline to which he is subjected. Few also will

doubt the value of the faculty of a perspicuous oral expression of our views on any subject we may have to expound. The value of this faculty is doubtless different in different subjects, and in certain abstract subjects (as mathematics for instance) its value has been often unduly depreciated in comparison with the power of written exposition. This is to a certain extent true, but principally with respect to those who may pursue such abstract studies more with reference to the research of new truths than the exposition of old ones. But how exceedingly small is the number of these original investigators compared with the aggregate number of our students, besides that those who compose this small number are the men for the cultivation of whose minds systematic rules are the least required. Regarding those, however, who follow science more as the business of life, we find an immense majority of them engaged rather in its exposition than in its original researches; and to all such the power of oral exposition of their subject is obviously of the first importance, and cannot be cultivated too early in the course of their own studies. And with reference to those who may be engaged in any department of professional or official life, we can hardly estimate too highly the power of which we are speaking; and in those cases in which such men may, in early life, discipline their minds by the study of abstract subjects, the value of the power of oral exposition of them is not to be measured by its value in such subjects themselves, but as cultivating the habit of ready and logical thought on any subject to which the mind may be afterwards applied. The acquirement of this power may, I conceive, be much more encouraged and much better tested by oral than by written examinations.

It must not be supposed that, in making these observations, I would depreciate the value of examinations conducted by printed questions and written answers. I conceive them, on the contrary, to be of the utmost value. It is to their exclusive use that objections are here urged. Such use of them affords the greatest encouragement to that *cramming* system of teaching and reading which calls so loudly for correction. I never heard any one assert the contrary, though comparatively few have shown much readiness in adopting a corrective to the evil. That correction, so long as we assign (and I think rightly) so much importance to competitive examinations, must be found in the examinations themselves, and not merely in any improved modes of teaching. The teacher will in vain lead his pupils to the purest springs of knowledge if they be indisposed to drink thereat; and, while human nature remains unchanged, it is idle to suppose that the thirst for knowledge will pro-

ceed more from the pure love of it than from the motive which a commercial view (if I may so speak) of competitive examinations affords. Young students, as well as older men, will act very naturally, and in numerous cases very prudently, in accordance with the dictates of that worldly wisdom which suggests the value of the means of daily comfort and independence. It is, I repeat, to the examinations that we must look for the correction of any evils of our general system of teaching; and for that sin of *cramming* which so much offends one in all higher teaching, I believe no remedy to be nearly so effective as a well directed *vivâ voce* examination, simply because no crude and undigested knowledge can remain undetected under the test which it supplies.

I think it probable that the number of those who would mainly agree with what has been advanced respecting the evil tendencies of exclusively written examinations, is much greater than those who would yet admit the practical establishment of oral examinations as desirable, though they may not altogether deny their remedial efficiency, and have no better means to prescribe. It has been often said that oral examinations are not sufficiently definite; and it must be at once allowed that they have not the definiteness—I had almost said the vicious definiteness—of written examinations. Much of this determinate character in the latter, however, it must be recollected, is more apparent than real. Place a paper of given questions before an examiner that he may distribute a given aggregate of marks among the questions of various degrees of difficulty contained in it, and the distribution will be found to differ materially from that of another equally competent examiner. And, again, when a question is imperfectly answered, there may be considerable discrepancies of opinion as to the number of marks to be assigned to it according to the degree of its imperfection. The result, when announced in the number of marks obtained, looks, no doubt, exceedingly clear and definite, but we must not forget the indefinite nature of the process by which it must frequently have been obtained. Moreover, a written examination is in fact an examination on a small number of questions, and affords but an imperfect test of what the candidate may know or may not know about other portions of his subject. I again protest against these remarks being construed into a wish to depreciate examinations of this kind; but I would urge them against the argument of the indeterminateness of oral examinations, advanced, as it sometimes appears to be, with the tacit assumption that written ones are perfectly determinate. I deny the perfect determinateness of

the one and the great indeterminateness of the other. There is no difficulty in arranging men of varied powers and acquirements, by means of an oral examination, in a sufficient number of *groups* to render the result of great importance in determining the relative merits of the candidates; and it moreover affords the best means of testing some of their highest powers and most desirable acquirements.

The length of time required for *vivâ voce* examinations has been urged as a practical objection to them. The objection is undoubtedly valid to a certain extent, but has frequently been very unduly magnified. In the Indian Civil Service examinations half an hour is allowed to each candidate for the oral examination, but last year, in mathematics, where there are two examiners, this time was doubled by each examiner taking an assigned and separate portion of the subjects simultaneously with the other examiner, instead of both presiding at the same time over the whole mathematical examination of each candidate. Add to this that a large portion of the candidates required a much shorter time than an hour, on account of the extremely limited extent of their reading, thus leaving considerably more than the allotted time for those whose reading was more extensive. Sufficient time was, in fact, allowed to ensure substantially the object of this part of the examination.

But the most formidable practicable obstacle to the establishment of effective oral examinations is to be found, I fear, among examiners themselves, and those who may be likely to become such. I believe the class of men from whom our public examiners, whether in the universities or elsewhere, are chosen, may vie with any class of men for honorable feeling and sense of duty, as well as for their unquestioned competency for the performance of their task. Still examiners are men—oral examinations are troublesome—and the feelings of men are naturally antagonistic to labour and trouble. We know too that the apprehension of what is laborious in any proposed plan of operations not only affects the practical views of those who may have to encounter the labour; it affects also their abstract opinions of such plans. The excellence of a scheme involving little trouble is sooner recognized than that of one which involves much. In our own university the exercises of the schools were allowed to fall into disuse almost without a word of comment and certainly without a word of sanction from the Senate. The change saved a world of trouble to succeeding moderators; but thus the opportunity was heedlessly lost of converting an institution which had become useless by an unmeaning adherence to antiquated

forms, into one which, by an easy modification, might have supplied the corrective which is now required for the evils of an exclusively written examination. Oral examinations will, I have no doubt, become established among us hereafter. But, in the estimation of many persons, they would give a great deal of trouble; and that is reason sufficient for looking very shyly upon them. Still I believe that this obstacle will gradually melt away before fair and continued discussion of the subject, and would scarcely be again thought of if the plan were once established. At first most of the examiners for the Indian Civil Service were opposed to a *vivâ voce* examination; last summer they were unanimous in its favor. I believe the change would necessarily have taken place, though possibly not so soon or so completely, had it not been for the steadiness with which the Commissioners supported the scheme, and the ability with which it was advocated by a classical examiner of the present as well as the preceding year.

This university may justly claim a large share of the credit for what is good in examinations, conducted by carefully selected printed questions and written answers; she must also bear a corresponding share of the blame which may attach to the evils arising from too exclusive a use of them. We may wish that there had been manifested as great a desire to correct these evils as to encourage the system which creates them. I have no intention, however, of discussing at present the introduction of oral examinations into our university, but I cannot help remarking that, in the event of the proposed regulations respecting mathematical professorships being carried out, we shall have three well paid resident mathematical professors, besides the Plumian professor, on whom it would indeed be unreasonable to impose more work than that which he now does so faithfully and so well. These three professors would appear exactly the persons likely to be best qualified by their position and the maturity of their knowledge for conducting a *vivâ voce* examination. Young examiners can never be equally qualified. To these professors the oral examinations might be assigned, quite independently of the written examination of the Senate-house. Not only might we thus obtain efficient *vivâ voce* examinations, but we should also establish that more intimate relation between the professors and the body of our students, the want of which has deprived professorial teaching, for the most part, of so much of its efficiency. But I can only hint at a scheme which I profess not now to develope. These remarks have already proceeded to a greater length than I anticipated.

In conclusion I would strongly recommend such of our students as may intend to become candidates for Indian Civil appointments, to accustom themselves to oral as well as written examinations. They will thereby become better educated men, and will have an increased chance of success in the competitive examination.

W. H.

NOTE.—Several statistical tables are given in the published Report of the Civil Service Examination. The following table may also have some interest. It exhibits the number of *successful* candidates in each year from 1855 to 1859 inclusive, from the universities of Oxford, Cambridge, and Dublin respectively, with the average marks obtained by each candidate in the subjects specified. Several subjects are omitted, but they are those in which comparatively few marks were obtained by successful candidates. The numbers inserted under any subject have been obtained by adding together all the marks obtained by the successful candidates in that subject, from each university severally, and dividing the sum by the number of candidates from that university.

Taking the aggregate of the sums given in the last column of the opposite Table, for the last four years for Oxford, Cambridge, and Dublin Candidates respectively, we have for

Oxford candidates	7985	marks.
Cambridge ,,	7994	,,
Dublin ,,	8943	,,

Hence it appears that, on the average, the Oxford candidates have stood first in Classics, (except in 1855) and in Moral Philosophy (except in 1856); and they have stood last in Mathematics. The Cambridge candidates have stood first in Mathematics, and last in the Moral Philosophy. The Dublin candidates have stood first, in the four last years, in English. Also it appears that the average number of marks during the last four years obtained by each successful Dublin candidate has been greater than that obtained by the Oxford or Cambridge candidates. The numbers obtained by the Oxford and Cambridge candidates respectively are very nearly equal. If the marks obtained for the Natural Sciences, and for Sanskrit and Arabic had been included, each of the numbers assigned to the three universities would have been slightly and nearly equally increased, arising principally from Sanskrit and Arabic in favor of Oxford, and from the Natural Sciences in favor of Cambridge and Dublin.

AVERAGE of the marks obtained by each successful Candidate from Oxford, Cambridge, and Dublin respectively, in the subjects specified, and in each year from 1855 to 1859 inclusive, in the Examination for the Indian Civil Service.

Year.	University.	Number of Candidates.	English.	Classics.	French, Italian, German.	Mathematics.	Moral Philosophy.	Sum.
1855	Oxford Cambridge..... Dublin	8 6 0	1500	1500	1125	1000	500	4625
			290	736	167	12	159	1364
			478	821	120	97	109	1625
								0
1856	Oxford Cambridge..... Dublin	4 7 4	478	1000	254	54	162	1948
			650	906	145	238	76	2015
			673	692	617	115	294	2391
1857	Oxford Cambridge..... Dublin	5 1 1	586	956	332	0	108	1982
			520	844	671	172	0	2207
			744	898	450	0	0	2082
1858	Oxford Cambridge..... Dublin	9 3 6	752	865	227	0	161	2005
			586	704	345	128	27	1790
			847	731	429	181	143	2331
1859	Oxford Cambridge..... Dublin	12 9 7	799	796	315	41	99	2050
			744	628	174	411	25	1982
			819	787	377	91	65	2139

II. PROCEEDINGS IN MEDICINE IN CAMBRIDGE.

THE course of education required of candidates for Medical Degrees in Cambridge has lately undergone careful revision, with a view to facilitate the access to the Degrees without lowering the high standard which they have hitherto maintained; and, secondly, to provide the means of efficient instruction in certain branches of Medical Science in Cambridge, so that the earlier part of the period which is required to be devoted to Medical Study may be spent in the University, while the remainder of the period may be passed in the Metropolitan or other large schools recognised by the University.

The reputation of the Cambridge Medical Degree is due; partly, to the term of *residence* required in the University, during which the student derives the advantages resulting from an association with members of the various classes of society who resort to the University; and, still more, to the fact that the *general education* of the graduate has been continued beyond the ordinary period, and has been conducted according to the system of the University, and that his mind has, consequently, received a certain amount of that training in exact science which is so admirable a preparation for medical study.

It is, therefore, determined that the candidate for the M.B. degree must reside, as heretofore, nine terms, that is, the greater part of three years. This time may be devoted, in part, to general education and, in part, to medical study, or to the former exclusively. Usually, the first half of the time will be chiefly occupied in Classics, Mathematics, and Natural Philosophy; inasmuch as in the fifth term an examination in those subjects—the PREVIOUS EXAMINATION—must be passed. The latter part of the time may be devoted entirely, or chiefly, to the study of Medicine. (After passing the Previous Examination, it is optional either to continue the general studies of the University and take a Degree in Arts, or to proceed, at once, to the study of Medicine.)

Ample opportunities for the study of certain branches of Medical Science are provided in the University. Courses of Lectures are regularly given on Comparative and Human Anatomy, on Pathology, Chemistry and Practical Chemistry,

Materia Medica, and Botany. There are Anatomical and Botanical Museums and Chemical Laboratories. Addenbrooke's Hospital affords the means of Clinical instruction; Clinical Lectures on Medicine and Surgery are delivered weekly in the Hospital; and the visits of the Physicians and Surgeons are regulated to meet the convenience of the students as much as possible.

It has not been attempted to render the School of Medicine in Cambridge quite complete; it being thought desirable that the student should be induced, indeed obliged, to seek part of his medical education elsewhere. He must study Medicine in Cambridge during six terms (four if he have taken the degree of B.A.). After that he will proceed to some other school: he will thus have the advantage of pursuing his course in two different schools of medicine; and the expense is very little, if at all, more than is usually incurred by medical students who do not come to the University*.

There are two *Examinations* for the degree of M.B. The *first* (after the completion of three years of medical study) in Chemistry, Botany, Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, Pathology, portions of Celsus, Hippocrates, and Aretæus. Certificates of attendance on lectures on most of the above subjects, and of practising dissection, are required before admission to this examination.

The *second* Examination is in Pathology and Practice of Physic, Clinical Medicine (conducted at the bedside of the patient), Medical Jurisprudence, and the Medical treatment of surgical and obstetrical diseases. Certificates of attendance on Lectures on Clinical Medicine and Surgery, and on Hospital Practice for three years, are required.

An *Act* has to be kept after the second Examination. This consists in the reading publicly, in the Schools, of an

* It may be observed that the necessary expenses of University education are small; the tuition and lecture fees are low; lodging is cheap, and the style of living is entirely optional with the student. Many students pass through the University at a very small cost; and in the case of some the expenses are nearly, or quite, counterbalanced by the emoluments of the scholarships which they obtain.

In Caius College a Scholarship worth £20 is annually given for proficiency in chemistry; and another of the same value, tenable for three years, is annually given for proficiency in anatomy and physiology.

There are Medical Fellowships in several of the Colleges; and it is to be hoped that some of these will, in future, be given for proficiency in medical science. By this means, or by the foundation of a few Medical Studentships, a great impulse might be given to the pursuit of medicine and the collateral sciences in the University and in the country at large, and much would be done towards establishing that closer relation which ought to exist between the University and the medical profession.

English thesis, followed by a *vivâ voce* Examination on questions connected with the thesis, and on other subjects.

After the Act has been kept, the student has the opportunity of being a candidate for honours in the Natural Sciences Tripos; and he is induced thereto by the fact that the subjects for examination are, for the most part, those which he has been pursuing in the course of his medical study.

The Previous Examination in the fifth term, which students must pass to obtain a Medical or any other degree in the University, is received by the College of Surgeons in lieu of the Preliminary Examinations for the Membership and Fellowship of the College. The attendance on the Lectures and Hospital Practice in Cambridge for one year is recognised by the College of Surgeons and the Society of Apothecaries, as equivalent to one year's study in London or elsewhere. The M.B. of the University is admitted to the Examination for the Diploma of the College on merely giving proofs of having completed the Anatomical and Surgical Education required by the College. He can also be admitted to the Examination for the Licence of the Society of Apothecaries on producing his Indentures of Apprenticeship; but it is not supposed that this will often be done, inasmuch as the degree of M.B. confers a legal qualification to practise Medicine.

By these arrangements a closer connection is established between the University and the College of Surgeons than has hitherto existed; and, the courses of Education required by the two bodies being thus, to a considerable extent, harmonized, it is hoped that a greater number of those who propose to practise in Surgery, as well as in Medicine, will resort to the University, and will embrace the opportunity of combining the degree in Medicine with the Diploma of the College. The advantages of University Education and the opportunities of competition for University honours and prizes are thus opened to the most numerous class of the Profession, without involving loss of time or much additional expense; and the closer alliance between the University and the Profession which is likely to result from this must be productive of benefit to both.

With the view of furthering this object, and of enabling students who are destined for the Medical Profession to come to the University at a somewhat earlier period than has been usual, Dr Humphry, one of the Surgeons to Addenbrooke's Hospital, has obtained the recognition of his house as a University Hostel, so that pupils residing with him, and pursuing their Medical Studies under his superintendence during the period which is usually spent in the house of a Medical man,

may matriculate in the University, keep terms, pursue their general education to such extent as seems desirable, obtain degrees, and enjoy all the privileges of University Students, just as if they were admitted at one of the Colleges. In following the course prescribed by the University they are preparing for the College of Surgeons, and have the opportunity of proceeding to the Membership and Fellowship of that College at the appointed periods, as well as of graduating in the University; and with the degree and diploma obtained at the University and the College of Surgeons they are qualified to practise in every branch of the Profession.

Three years' residence is necessary to obtain a degree; but the Hostel is also open to students who, having perhaps commenced their professional education elsewhere, may wish to join the University, and attend the Medical or other Lectures and the practice of the Hospital for a shorter period—a year or two—before going to London.

Lectures in the Cambridge University Medical School.

Comparative Anatomy and Physiology, by the Professor of Anatomy—3 days weekly in the October Term.

Human Anatomy and Physiology, by Dr. Humphry—3 days weekly in the October Term, and daily in the Lent Term.

Practical Anatomy, superintended by Dr Humphry.

Pathology, by the Regius Professor of Physic—5 days weekly in the Easter Term.

Chemistry, by the Professor of Chemistry—4 days weekly in the Lent Term.

Chemistry, by G. Liveing, M.A.—4 days weekly in the October Term.

Practical Chemistry, by G. Liveing, M.A.—3 days weekly in each Term.

Materia Medica and Pharmacy, by the Downing Professor of Medicine—3 days weekly in the Lent Term.

Botany, by the Professor of Botany—3 days weekly in the Easter Term.

Clinical Medicine. Attendance at the Hospital 4 days weekly, and a Lecture weekly in each Term.

Clinical Surgery. Attendance at the Hospital 3 days weekly, and a Lecture weekly throughout the year.

III. THE CO-OPERATION OF OXFORD AND CAMBRIDGE IN LOCAL EXAMINATIONS,

AND THE ASSIMILATION OF THEIR SCHEMES.

By the REV. J. S. HOWSON, M.A. *Principal of the Collegiate Institution, Liverpool.*

A MEMORIAL, addressed to the two Universities and signed by a large number of Schoolmasters, has recently urged the adoption of some arrangement, by which their schools should have a Local Examination within reach only once in the year. This particular question is only one part of a very large and important subject. I am persuaded that the ultimate success of the whole scheme of local examinations will depend, very largely, on the degree of mutual understanding with which Oxford and Cambridge co-operate in the enterprise, and the degree of closeness in which their programmes are made to assimilate. I propose in this paper first to notice some evils which would be likely to arise in the absence of such co-operation and assimilation, and secondly, to offer some suggestions for the practical realisation of what I feel to be so desirable.

As the case stands at present, two programmes, differing in some very important particulars, are before the country,—two examinations, worked by separate machinery, one at Midsummer and the other at Christmas, invite the competition of candidates,—two Universities, each secure of loyal adherents in every neighbourhood, are working locally for the same ends, but in the way of conflict rather than of combination. This kind of incoherence, to call it by no other name, is likely to have an embarrassing effect on the construction, harmony, and continued action of the Local Committees. On this point I do not dwell, though it would be easy to dwell upon it at length and with force. The evils, to which I wish to invite attention at present, are those which will affect the Schools, unless the two forces, which are now acting on them, are brought to operate more evenly, and more nearly in the same direction.

The teaching in a School is arranged, or ought to be arranged, on some well-considered course of study, with the view of producing certain average results at certain average ages. We will assume, as well we may, that an examination,

conducted under the auspices of either Oxford or Cambridge, would satisfactorily test these results; and that a programme of examination, issued by either University, would be a valuable guide to Schoolmasters in the arrangement of their work. If one such examination-scheme were before the Country, if it were known that the competition would recur at fixed intervals in fixed local centres, it cannot be doubted that our schools would be rapidly adjusted to this state of things, and that they would experience the benefit of a continuous improvement. But if the intervals are irregular, still more if they are uncertain, if the places of examination are indeterminate, if at a given place one kind of examination is expected at one time, another at another, or if two kinds of examination conflict at the same time and place,—if, further, we take into account the varying wishes of parents, the various feelings of schoolmasters towards Oxford or Cambridge, the varieties in the occurrence of candidates' birth-days,—it is easy to see that the resultant action of these forces may be simply disturbance, and that the allegiance of Schools to the Universities may be shaken rather than confirmed.

What has just been said points to the importance of such geographical and chronological arrangements, as may at once be convenient and permanent. But the most serious evil is by no means here. If the examination-schemes themselves are different, and if a school is preparing at one time for one, at another for the other, the effect is very unfavourable to that steady progress, which ought to be the desire alike of the parent and the master. Intermittent impulses and frequent readjustments of work are injurious to schoolboys. The danger is perceived very palpably, even if we consider, in any given school, a class of boys as a whole. It cannot be desirable that a class should be suddenly thrown into a new attitude, simply because a new examination is impending. But the case is seen to be far worse, when a class is divided into sections, some of whom are looking forward to one examination, some to the other. If a boy, who will be fifteen on the 1st of July, is reading the *Bellum Gallicum* for an Oxford honour, and his class-fellow, who will be sixteen on the 1st of January, is reading the *Bellum Civile* in the hope of receiving a distinction from Cambridge,—if, of a group of boys following the same general course of study, some desire to place "A. A." at the end of their names, and are impatient under the religious lessons which the rest pursue with diligence, because they feel they are not discouraged,—if the parents in all these cases are urgent,—and if the instance we imagine be one of those private-adventure schools, which

depend on popularity, and which it is desirable to raise above all temptation to sordid subserviency,—we see that the two Universities, by means of inharmonious examinations, instead of being *edificant*, to use an old word, of the structure of teaching and discipline, may really be forwarding a process of disintegration.

We sometimes hear it spoken of as an advantage, that there should be two types of examination before the public, corresponding respectively with the habits of Oxford and Cambridge, and that they should shew a difference in the *maximum* of age for juniors, so that schools of two different grades may have their appropriate standards to aim at. To these statements, as abstract propositions, I do not think that any reasonable objection can be made. If Oxford and Cambridge were not different, England would be impoverished: it is highly desirable, too, that they should act according to their respective traditions: and it would be a general advantage, if all schools, of all various grades, could have examinations within reach, adapted to the standards of age and acquirement, which they might severally hope to attain. But these abstract truths are not practically applicable to the case in question. Oxford trains her own students within her own precincts for her own examinations. So does Cambridge. But these local examinations test the training which is carried on by independent instructors, in various places, and under various circumstances. If all the schools and all the neighbourhoods of the country could divide themselves into two classes, owning allegiance respectively to Oxford and to Cambridge, there would be no further difficulty. But every one sees that this is impossible. The two examination-schemes must act on the same schools and the same neighbourhoods. I hope I have said enough to shew that if they do not act harmoniously, there will, at least, be an admixture of evil with the good. I proceed to offer some suggestions for the ultimate co-operation of the Universities, in respect to these examinations, and for the approximate assimilation of their schemes.

The co-operation should, I conceive, relate chiefly to considerations of time and place. (*a.*) Some have, indeed, suggested that the two examination-schemes should be fused into one, and that the whole undertaking should be worked by a Combined Board. But coalitions are not often successful. An Oxford and Cambridge Mission to Central Africa has in it, as was seen on the first of November, every element of hope. But for the improvement of education among the Middle Classes of England, the Universities will work

most effectually, if they work independently. The resignation of independence might indeed untie the knot of the difficulty, as regards local adaptation: but the tension and force of the enterprise would be relaxed. (b.) Another course, convenient at first sight, would be that the Universities should divide the country between them, each taking one half. But this would be hardly loyal either to the Country or to the Universities themselves. The influence of both Seats of Learning is diffused everywhere. The associations of each interpenetrate those of the other: and the more this is the case on the ground which we are surveying, the better for us all: nor is it likely that any local group of schools could resolve to limit itself to an exclusive connection either with Oxford or Cambridge. (c.d.) Next we have the plans of alternate half-years or alternate years, the local centres being presumed the same, or nearly the same. The Memorial above alluded to, which I very gladly signed, precludes me from saying anything in favour of alternate half-years; though I think it is much to be preferred to either of the preceding plans. Much is to be said in favour of alternate years. In fact, if the programmes of examination were assimilated, I believe the yearly alternation would be entirely acceptable to the country. But the individual persons, who constitute a Delegacy or a Syndicate, may change rather rapidly; and the interest in a scheme of practical usefulness might grow cool, even at Oxford and Cambridge, in an interval of two years,—to say nothing of the difficulty of obtaining the increased number of examiners which would be requisite at the close of each such interval. (e.) A fifth plan has been suggested, which has many recommendations. The places of examination are supposed to be taken in pairs, each place being visited by Oxford and Cambridge in turns, after the fashion of Castor and Pollux. Or—to put the matter otherwise—instead of a number of circles described, each round its one centre, in various parts of the country, we are supposed to have a number of ellipses, each with its two *foci*, both *foci* being occupied every year, but alternately by the two examining bodies. The obvious illustrations are such as these, Bristol and Bath, Bradford and Leeds, Manchester and Liverpool: and the obvious advantages would be, that every school would have both an Oxford and a Cambridge examination within easy reach every year, and that no district would lose its connection with either University. There is little doubt that the schools of a neighbourhood might pursue their course very evenly under the influence of such alternate forces. There is something, however, to be said here too

in the way of objection. It is probable that each town would practically accept the examination which for the time might be held within its limits. Thus the boys of neighbouring towns would not be brought into direct competition with one another. Moreover, if a parent were to send his son away from home at all, to be examined by the University of his choice, he would probably rather send him to Oxford or Cambridge at once, than to a rival seat of manufacture or commerce: and such opportunities of giving to our trading classes even a transient Academical association are very valuable. (*f. g.*) Thus I am disposed to ask for a careful consideration of two other arrangements, suggested to me by Schoolmasters who have given much attention to the subject. One of them recommends that in one year Cambridge should examine in all the provincial districts, and Oxford at Oxford alone (to this I would add London), and that the next year they should exchange functions, Oxford taking the provinces, and Cambridge limiting itself to Cambridge (with, possibly, London). The other proposed modification is this, that England should be divided into northern and southern districts, the Universities alternating between them in successive years, holding also each year an examination within their own precincts. On the whole it seems impossible to believe that any insuperable difficulty can hinder the Universities from so co-operating with one another and with Local Committees, as to agree on a distribution of places and times, which will practically meet the case¹. It remains however to consider the assimilations of the programmes, without which, as it seems to me, chronological and geographical adjustments are comparatively valueless.

In regard to the two programmes, two things may be said with truth,—that to Oxford a great debt of gratitude is due, for having first propounded an admirable scheme of examination adapted to schools of very various kinds,—and that it would be strange, if Cambridge, following this example, had not

¹ If the numbers of the candidates become unmanageable on any system of yearly alternation, it will probably be necessary to make the alternation half-yearly, the topographical arrangements remaining the same.

After most of this was written, a friend suggested to me another Geographico-chronological arrangement. According to this plan each University would, after a short provisional period, have a cycle of two years. Thus in December 1860 Cambridge would take the North for Juniors only, in 1861, the South for Juniors only, in 1862, the North for Seniors only, in 1863, the South for Seniors only. Oxford would follow an alternating order in June, beginning in 1861 with the North for Seniors only, in 1862 taking the South for Seniors only, and so on. It is suggested that this plan would enable students to prepare themselves systematically for the Junior and Senior Examinations.

been able in some respects to improve upon it. What is really wanted is, that the two schemes should have the same general import and significance in the eyes of the public¹: and it appears to me that this can be easily accomplished by means of reasonable concessions on both sides.

The changes requisite to produce a sufficient assimilation are not numerous. I venture to suggest three concessions on the part of Cambridge, and three on the part of Oxford.

I. 1. The degree in which Cambridge prescribes books to the candidates appears to me excessive, and productive of serious evil. If books must be prescribed, there is no reason why they should be changed from year to year. What is good in one year for one set of boys, is good in another year for another set in the same stage of progress. But I would rather see no books prescribed at all: in other words, I prefer, in this respect, the Oxford to the Cambridge plan. It is a serious thing for a Schoolmaster, who has deliberately arranged a course of reading for his boys, to find his machinery put out of gear by the introduction of a novelty having reference to a few individuals. Some books, indeed, are recognised as subjects of course for junior students: and it might be a very good plan, if it were stated in a stereotyped programme that one passage would always be set from some fixed book of Cæsar (say the first), and another from some other book of Cæsar,—one passage from some fixed book of the *Anabasis* (not the first), and another from some other book of the *Anabasis*,—and so of French and German, if authors in those languages can be selected with equal confidence. In English, Dean Trench's book *on Words* is well worthy to be a permanent manual: and I know no reason why Archbishop Whately's little book *on Evidences* might not be similarly adopted. By such arrangements as these, industry, on the part of inferior scholars, would reap its reward; while Schoolmasters would be left free to devise and adhere to, or to modify, their own methods of teaching and training: and as to the results, however attained, it is certain that Oxford and Cambridge Examiners would be very well able to test them.

I. 2. As in the last particular, so in the arrangement of the most successful candidates, each University has deviated from its tradition. The first class in the Oxford List is in order of merit, the first in the Cambridge List is alphabetical. It seems to me important that they should be assimilated; and I would suggest that the concession might come from

¹ Mr. H. J. S. Smith, of Balliol, expressed himself strongly on this point in a paper read last year before the Social Science Association in Liverpool. See *Trans. for 1858*, pp. 217, 218.

Cambridge. I know it is felt that there is great difficulty in arranging boys, on a miscellaneous examination, in strict order of merit. But this difficulty is far less in the case of higher boys, than in the case of those who fill the lower classes in the List. And there are these advantages in the Oxford arrangement, that it facilitates the giving of local prizes, and helps to designate those who may fitly be encouraged to go to College, and generally stimulates that local interest in the candidates, which it is so desirable to encourage¹. I. 3. I now come to the title, which is given by Oxford at present to the senior candidates who have obtained a certificate, but which has hitherto been viewed at Cambridge with repugnance. I confess that I have always looked upon it with discomfort: nor have I noticed, within my own experience, any proof of benefit arising from it: we hear too that regret is felt by many Oxford men that their scheme has this feature. The subject, however, has a less formidable aspect, now that the letters "A. A.," which at first were understood to denote a "degree," are viewed only as an honorary "title²." And so strongly am I impressed with the importance of assimilation, that I should be glad if Cambridge could concede the point, supposing that the other University still regards it as of great consequence. It seems unnatural, at least, to imagine that a *compromise* is impossible. It will surely be practicable, at the close of the three experimental years, to agree upon some conventional mode of representing, in an abbreviated form, the fact that a senior certificate has been obtained. It seems to me that there would be no objection to "A. O." and "A. C.," denoting respectively "Associate of Oxford" and "Associate of Cambridge³."

The three points, on which I, with many others, am earnestly anxious to see a concession on the part of Oxford, are the sectional classification, the *maximum* age of juniors, and the mode of recognising and marking Religious knowledge. II. 1. From the first I felt an extreme repugnance to the sectional classification adopted in the Oxford scheme

¹ It may indeed be justly said that prizes are of far less consequence now than at first. It ought also to be well considered what moral effect the singling out of individuals may have on the vanity or envy of young boys. There is too the serious question of the possibility of over-stimulating the nervous system of young boys by too much work.

² This distinction was emphatically pointed out at Liverpool by the Delegate who visited that town in 1858.

³ This abbreviation would appear nearly the same as "A.A." to those youths who value a title, and yet it is without the most obnoxious element. It is also very similar to that which has been sanctioned at Oxford during the three provisional years.

for seniors; and subsequent experience has deepened my feeling against it. It seems to me that, in the case of boys under eighteen, we ought not to accelerate, but rather to delay, specialties of instruction. I would not urge such youths along the ruts of particular studies, but I would encourage them to travel over the fair open roads of a liberal education. We hear it said, and with justice, that it is not well to encourage candidates to offer themselves for examination in a multitude of subjects, all badly prepared. But this can be guarded against and checked, on an aggregate classification like that of Cambridge, by giving no credit for marks in any subject below a fixed *minimum*. In the Cambridge scheme, again, excellence in special studies is distinguished; but this distinction is secondary there, whereas in the other scheme it is primary. I have no hesitation in saying that many who have obtained double second classes in the Oxford list would have obtained first classes in the Cambridge list: and I believe that some who have been in first classes on the former, would have been found in the lowest class on the latter. If this is so, the two schemes do not stand in the proper relation to one another. They do not mean the same thing, or nearly the same thing. But perhaps the greatest stress is to be laid on the effect which the sectional classification may have in disorganising School-work, by tempting parents and masters to stimulate individual boys in the pursuit of certain studies for which they may have an aptitude, to the neglect of others which may be more important for the time, and to the confusion of the general arrangements of the school. It is to be observed too that the sectional impulse is greatly increased by the fact that it is in this very scheme that the sectional first classes are in order of merit. This order in a first class arranged on the aggregate system would produce no such consequences.

II. 2. On the subject of the *maximum* age for juniors I may give my opinion with some confidence. For, wishing to see the lowest class of Middle Schools drawn upwards by the hands of the two Universities, I at first thought that fifteen would be the right limit: but further consideration has changed my view. It is better for the lower schools to be induced to lengthen the period of education, than for the higher to shorten it. Moreover a boy of fourteen is not excluded from a competition in which the *maximum* age is sixteen, though he can seldom hope to obtain the highest place in it. The interval, too, between fifteen and eighteen is very long to a schoolboy; and, if he has been examined under fifteen, he will be less likely to remain for the higher ordeal, than if the

lower had been passed between fifteen and sixteen. Nor must it be forgotten that if the *maximum* is sixteen, the average age of the candidates will be much less, and that most of them will only just have reached that time of life, when they are able to put down their knowledge well on paper. Still I value assimilation so highly, that I would rather see a compromise on the basis of fifteen and a half, than the present contrariety. As to the argument that it may be advantageous to have two standards of age adapted to two kinds of schools, I hope I have shewn that it is fallacious. The two standards cannot practically be presented to the schools for which they are respectively intended. It is more likely, if the present state of things were to continue, that each school would be liable to an irregular and disturbing action¹. II. 3. I will not say much on the most important topic of all. Facts are decisive as to the favour with which the public, including Church-people and Non-conformists, have received the Cambridge plan of dealing with the subject of Religion. On this plan Religious knowledge is rewarded co-ordinately with other knowledge, while the conscience of every one is left perfectly free: and, with the Cambridge examination in view, it is evident that Religious lessons will be attended to both by Masters and Boys with uniform interest and diligence. Facts are equally decisive against the Oxford plan of arranging this part of the programme. A very large proportion of the Candidates in the first year declined examination in the "Rudiments of Faith and Religion:" and in the second year, though a new regulation had decided that those who should submit to and pass this part of the test, should be pointed out in the Class-list, the number of those who declined was still larger. And no wonder. Boys have a rough kind of logic. They do not suppose that that work is valued which receives no marks. Nor are Schoolmasters free from temptation under the urgency of competition, especially if the Parent and the Boy are both eager for success. Thus, if the present Oxford plan is not modified, there is a strong inducement, in schools which cannot rise above the pressure, to treat Religious instruction with neglect; and this under the sanction of an honoured University. I will only add this, that the sectional classification, besides its inherent defects, is indirectly, but very

¹ It is to be hoped that a *minimum* age also will ultimately be agreed on, both for juniors and seniors. Here again the evils of the sectional classification are apparent. A clever boy may often be trained (to his injury, as I think) at a very early age to an exclusive proficiency in Mathematics and Physical Science.

really, an enemy to Religion; since it presents a serious hindrance to the incorporation of Religious knowledge with other knowledge. If a boy is to be placed in a first class for a good acquaintance with Chemistry and Natural History alone, or for good scholarship in Latin and French alone, it is very difficult to throw a number of marks for Divinity into his scale. Thus the lesser evil supports the greater. If once they are felt to be evils, it cannot be doubted that they will be allowed to fall.

Many other subjects remain, but they are of minor importance; and they will probably find an easy adjustment. If the aggregate classification is adopted by both Universities, the sections and subsections of subjects in the programmes may perhaps be arranged with greater simplicity. It may be advisable to assimilate the number of classes, though this is of no great moment. A mutual understanding between the Universities as to modes of marking would tend to give confidence to the country: and the publication of a schedule of *maximum* and *minimum* marks, not necessarily identical in the two cases, would be a great boon to Schoolmasters. If there is any discrepancy in the mode of dealing with particular subjects, that discrepancy should be known. Boys require precise instructions, or they fall into confusion. I may mention the writing out of Euclid, in full or with algebraical symbols, as an illustration worthy of notice.

But my paper is already too long. The Schoolmasters are very grateful to the Universities for giving them this system of examinations. It enables them to discharge their duties better, to discover defects, to introduce improvements, to train their pupils more thoroughly. It is a link between the Universities, to which most of the Schoolmasters belong, and those Towns and Districts in which they are labouring, and the wants of which they have an opportunity of knowing. It is a welcome link between the Universities themselves. At the meeting to which I have alluded, Mr Gladstone spoke of "the associations of reverence and affection with which every Oxford man must regard the University of Cambridge." Such are the sentiments of every true son of Cambridge towards the University of Oxford.

IV. THE PROFESSORIAL SYSTEM.

THE Professorial System has not been increasing in popularity of late in Cambridge. This proceeds in part from the extravagant claims which have been put forward in its favour elsewhere, as well as from a general suspicion of the thing called Germanism; but more particularly at the present moment from the pardonable reluctance among Fellows of Colleges to see their dividends lessened for objects, of the utility of which they are not fully persuaded.

"A Fellow," it is urged, "is at least as useful as a Professor, indeed the lectures of the latter are in many cases positively detrimental; with what justice then, or with what show of expediency, can the former be called upon to contribute to the support of the latter? Every body knows that Professors are from necessity, if not from choice, mere popular lecturers, obliged to content themselves with superficial views of science and such details as may serve to amuse the not very intellectual class of students whom alone they can hope to attract. It is equally well known that students, who once fall into the professorial snare, are doomed to take wholesale all the assertions of the Professors; they lose the power of reading or examining a subject for themselves; their highest success is to become glib talkers about questions on which they are entirely uninformed."

Those who wish to see these arguments stated in the most forcible manner, may be referred to an article entitled *Commissioners and Colleges*, in the last volume of *Cambridge Essays*. While allowing their plausibility, I would still submit that there is nothing in the nature of things to render the Professor's lecture thus inferior to that of the College Tutor. For after all, what is the essential difference between the two? Simply this, that the Professor lectures to members of all colleges, while the Tutor lectures to members of his own exclusively. Are there any cases then, in which it is desirable that lectures should not be confined to members of a single college? As it appears to me, such cases may arise either from the nature of the subject, or from the character of the lecturer. In the first place, if the subject either from its abstruseness or from its lying beyond the range of the University course is such as to attract only a small number of students, it would plainly be undesirable, if not impossible, to have

lectures upon it in every College, and therefore if the subject deserves to be cultivated at all, the Colleges must unite to appoint some one teacher as their vicar in that particular branch of study. The lecture may be catechetical and in all respects resembling the ordinary College lectures, and this I believe has been the method generally adopted in elementary lectures upon the Oriental Languages for instance when they have been given by Professors; in other cases, where the attendance is small from the abstruseness of the subject, it may happen that there are no text-books which could be prepared, or the more advanced age of the students might prevent the Professor from indulging in anything like formal examination.

2ndly, The character of the lecturer may make it desirable that his lectures should not be confined to his own College, when he possesses a peculiar power of teaching, whether in the way of popular exposition, or of more private tuition. The popular lecture is the model of most of our professorial lectures, and forms the special butt of those who insist upon the uselessness of these. It is of course not difficult to shew that a person attending a lecture merely as he would go to a play, without any previous or subsequent thought on his own part, is not likely to arrive at any very deep knowledge; but the purpose of the popular lecture is just to excite that interest in the subject which will lead a man to follow it out for himself, while at the same time it furnishes him with a sort of map of the route he has to travel. I believe there are many amongst ourselves who feel that they owe as much to the popular lectures of the University, as to the catechetical lectures of the College; and I have heard others now engaged in parochial work speak in the highest terms of the benefit they received from attending the lectures of the late Professor Blunt on the Duties of a Parish Priest. If it were a matter which had to be decided by experience, I would instance the effect produced by the lectures of Stewart and Hamilton at Edinburgh, and of Cousin at Paris: but until personal influence and eloquent exposition and the sympathy of contact cease to be powers among men, I really cannot understand how any one can propose to dispense with their use in education, on the ground that books supply all that the student can require. To take the instance of Professor Blunt's lecture mentioned above, how different a thing it is to run over the pages of the printed book now, from what it was to have each thought impressed upon you with the energy of the author's own convictions, while the attention of all intensified the attention of each! No doubt it is not all subjects which admit of this treatment: where long trains of reasoning have to be

carried on, and each link must be firmly held in order to apprehend the whole, it is desirable that the student should have the opportunity of re-examining what has been said, and satisfying himself as to the soundness of the arguments made use of; or if an accurate knowledge of details has to be supplied, this may be better accomplished by means of the catechetical lecture; but where the object aimed at is to excite enthusiasm and kindle imagination by pointing out the more general bearings of a subject, its connection with other sciences, its practical use, its history, &c., and then to direct that enthusiasm to the proper methods of study; it appears to me that here the popular lecture is our best, if not our only, instrument. There are other cases in which it may be desirable to employ it merely on the ground of convenience; as for instance, in classical lectures attended by a large number of students, of tolerably equal knowledge and ability; each student requires to learn the art of translating into simple idiomatic English, and the difficulties which present themselves to the mind of one as needing explanation, will probably be much the same as are felt by another, so that the lecturer may adapt his teaching to the class of fifty with almost as much ease as to the class of ten, especially if he gives the students an opportunity of consulting him privately after the conclusion of the lecture¹. I believe this plan of large public lectures 'in which the students are merely receptive,' has long prevailed in Trinity, and has been found to answer very well.

I mentioned another case in which it seemed to me that special ability should be utilized for University purposes, viz. where a person is distinguished as a private Tutor. It can hardly be doubted that it would be a great advantage to both Tutors and Pupils if, as a person became known for his powers of "coaching," he were to be put upon the University staff, receiving a regular stipend from the University, and being thus enabled to lower the payments made by his pupils without injury to his own income. To private Tutors this prospect of a University stamp would offer a useful stimulus, and it is to be hoped it might act as a check upon the practice of solitary instruction which now absorbs all the time of our rising bachelors. The private Tutor who had passed into the Uni-

¹ Of course it is not meant that a man can become a scholar by simply listening to good translation and commentary, without attempting to apply what he hears to his own practice. So neither can a man become an artist without using the pencil himself, yet he may learn much from watching the hand of his master.

versity Lecturer, would then at least, if not before, give his instruction to classes, instead of to individuals; and if he were appointed, as seems most desirable, to lecture in some special branch of Classics or Mathematics, having his attention thus confined to a small field, he would be far more likely to aid in the general advance of knowledge than he is now when his strength is dissipated upon a multitude of different subjects. It will probably not be disputed, that an arrangement by which the lecturer exchanges (say) eight hours of miscellaneous reading with pupils for three hours of lecturing upon the same or cognate subjects, is likely to be productive of great advantage both to science and to himself. But it appears to be thought that such an arrangement must be injurious to the pupils. No doubt there are cases of extraordinary inaccuracy in which the individual and minute oversight of a Tutor may be necessary, but in general I believe, that as far as Classics are concerned, it is not only more interesting and stimulating to the pupils to read in classes, but they are likely to suggest things to one another which might have escaped the notice of the tutor; and above all, they will have the Tutor at his best, after he has thought well over the subject, which they may be sure he will neither have time nor inclination to do if he takes them all separately. As to the size of such classes, the number of students in each should probably not exceed ten, and of course, as in the case of other University lectures, so in this, opportunity should be given to the students to consult the lecturer in private, if it were so desired. It might even be advisable that each student should have a fixed hour for such private interview once or twice in the term. Of the applicability of such a system to Mathematics, I cannot speak from my own experience, but the long-continued practice of the most eminent Mathematical Tutor in the University, proves that it may be wisely introduced under certain circumstances. However this may be, the student would gain one undoubted advantage in the lowering of the fees which would necessarily follow from the proposed change.

I have now pointed out four distinct objects which may be attained by University lectures better than by College lectures; 1st, instruction in subjects which lie out of the University course; 2nd, instruction in the highest and most difficult parts of subjects which enter into the University course; 3rd, the expounding of general views and the excitement of interest in new subjects; 4th, the educational teaching of the higher class of students throughout the University. In the first two cases the reason for preferring University to

College lecturers is plain. The paucity of students, if not of lecturers, would preclude the formation of classes in each college. In the third case the reason is partly the paucity of lecturers, gifted with the peculiar endowments which fit a man for the office of public lecturer; partly the saving of labour by making one man do the work of many. In the fourth case it may be said that each college is quite capable of doing this work for itself, and that there is no need for the University to take it up. In reply to this I would ask, "does each college now do this work for itself? Is it not true, on the contrary, that the greater part of the higher Mathematical and Classical training is either conducted by persons who are in no way connected with the tutorial staff of the college, or at all events not as being a part of their college duties?" Since then the colleges have generally abrogated the superintendence of the studies of their higher students, and since this is badly and expensively performed by means of the general system of private tuition, (badly, I mean, because it often acts as a bar to the intellectual progress of our most promising bachelors;) therefore it seems to me that the University should step in and organize a better and cheaper system for itself. It is not to be expected nor even perhaps to be desired that this should entirely do away with the present system of private tuition; there will always be exceptional tutors and exceptional pupils for whom that system is fitted, but I believe that if two or more lectureships of the kind I have described were started in the University, their example would be at once followed by the majority of the unsalaried private tutors.

Corresponding to the four objects of University instruction above named, we should have four kinds of lectures. (1) The special or extraordinary; (2) The advanced; (3) The popular, general, or introductory; (4) The regular or educational. Each of these will be best suited for some particular subject, as the popular lecture is adapted to Geology, History, or Divinity; but there is no reason why they should not be occasionally combined; thus the Divinity Professor might set subjects for sermons, and look these over with the students according to the suggestion made in a former number of the *Occasional Papers*.

But besides the benefits which the University receives even now, and which it might receive in a far higher degree from the lectures of Professors, I believe very much might be done by the Professors in a less official way, by gathering around them such of the residents as were interested in their own subjects, stimulating them to more strenuous

efforts, directing them to the most promising part of a subject, in a word organizing the forces of the University either with a view to the opening up of regions of knowledge as yet but partially explored, or at least to facilitate the investigations of future explorers. Nothing would tend so much to produce that division of intellectual labour, which is so much needed in England, as such a general superintendence over the literary and scientific activity of the University. Finally, Professorships are useful as supplying places for men of science and literature, in which they may give their whole attention to their special studies without being harassed by the cares of making a living. As this has been generally allowed to be a reason for the maintenance of Professorships, even by those who would forbid the Professor to give lectures, it will be unnecessary for me to do more than allude to the long series of important works for which we are indebted to Professors: such, I mean, as the writings of the Scotch school of Philosophers, with Adam Smith at their head; the commentaries of Blackstone, the lectures of Arnold, Blunt, Senior, and others far too numerous to mention.

Assuming the value of a Professoriate to have been thus proved, first as affording a subsistence to scientific or literary persons, whose talents might otherwise be lost to the nation, secondly as propagating an interest in the subjects of the lectures by unofficial channels, thirdly, as spreading a knowledge of those subjects by the four kinds of lectures above specified, we have next to ask whether any change is required amongst us either as regards the number or the salary of Professors.

To deal first with the question of salary; it appears essential that each Professor's stipend should be such as to enable him to reside in the University, and devote his entire attention to the prosecution of that branch of science or literature of which he is the representative. As a general rule such stipend can scarcely be fixed at less than £500, but an exception may perhaps be made in the case of the two Professors of Medicine, whose scientific usefulness will not suffer from the addition of professional practice. Perhaps too the Professorships of Music and of Archæology might continue to be paid at a somewhat lower rate until the University shall have further funds at its disposal. The second point to be discussed is whether any changes are needed in the duties of the Professors, or any addition to their number required. It is with great diffidence I venture to put forward any suggestion on a subject which has been so much controverted, but it seems to me that we require at least four new Professorships:

one in Latin, one in Anglo-Saxon and English, one in Logic and Metaphysics, and one in Zoology. Besides this we might gain what would be equivalent to a new Professorship by changing one of the Arabic Professorships into a Professorship of Sanscrit and Comparative Philology. If we further add four salaried private tutors (or Public Lecturers as they are called in the Report of the Commissioners, p. 82), two in Classics and two in Mathematics at £250 each, we shall have the following Professorships and Public Lectureships, the remuneration of which is at present either inadequate or wholly wanting. In order to ascertain what sums would have to be made up by the University in each case, I have taken the amount of the fixed stipend from the Commissioners' Report, pp. 71—73; only replacing the extinct parliamentary grants by the sums voted according to the Grace of Dec. 10, 1857. I have not reckoned the income derived from fees or lecture-tickets, as it appeared to me that the Professor, in all but exceptional cases, should receive a fixed stipend of not less than £500. The Professors of Divinity and Mathematics will in course of time be fairly remunerated from a new distribution of special funds. The following will remain to be increased to a minimum of £500:

	Present Stipend.			Deficit.		
	£	s.	d.	£	s.	d.
Reg. Prof. of Mod. History ...	371	0	0	129	0	0
Reg. Prof. of Civil Law	133	15	9	366	4	3
Jacksonian	240	0	0	260	0	0
¹ Downing of Law	250	0	0	250	0	0
Geology	218	6	5	281	13	7
Botany	182	0	0	318	0	0
Anatomy	100	0	0	400	0	0
Chemistry	100	0	0	400	0	0
Mineralogy	100	0	0	400	0	0
Moral Philosophy	132	16	3	367	3	9
Sir T. Adams (Arabic)	72	18	2	427	1	10
Lord Almoner (Sanskrit)	40	10	0	459	10	0
Political Economy				500	0	0
Latin				500	0	0
English and Anglo-Saxon ...				500	0	0
Logic and Metaphysics				500	0	0
Zoology				500	0	0

¹ Since writing the above it has been suggested to me that Downing College might fairly be considered responsible for the payment of its Professors.

	Present Stipend.			Deficit.		
	£	s.	d.	£	s.	d.
To be raised to a minimum of £300.						
Reg. Prof. of Medicine.....	183	15	9	116	4	3
Professor of Music to be) paid (say)				200	0	0
Two Public Lecturers in) Classics at £250 each }.....				500	0	0
Two Public Lecturers in) Mathematics at £250 each }.....				500	0	0
Total sum to be made up.....				£7874	17	8

Now the Commissioners have proposed to raise funds for the payment of Professors by a tax of 5 per cent. on the distributable income of the Colleges¹. In the Report of the First Commission, p. 197, the probable gross income of the Colleges is stated at £185000. If we calculate the distributable income at $\frac{3}{4}$ of this, we shall probably not be far wrong. This would make the distributable income £138750, and 5 per cent. on this latter will equal £6937 10s. 0d., falling short of the fund required by more than £900. It seems probable, however, that the Commissioners have taken a low estimate of the gross revenue of the Colleges, so that the sum left for the University to make up from other sources of income would be somewhat less than £900. Besides this the University will have to provide whatever sums may be judged needful for the purposes of lecture-rooms and museums. From these considerations it will perhaps appear that the proposed tax is not of exorbitant amount, provided the object to which it is to be devoted is thought worthy of some degree of self-sacrifice on the part of the Colleges. The present paper is an attempt to show that this object is worthy of such sacrifice both from an educational and a scientific point of view.

J. B. M.

¹ There seems no reason why the administration of funds derived from the Colleges should not be vested in representatives elected by the Colleges: such an arrangement would probably diminish the jealousy with which the proposed contribution for University purposes is at present viewed.

V. ON THE PROPOSED SCHOOL OF PRACTICAL SCIENCE IN CAMBRIDGE.

A PAPER on this subject containing an account of the scheme proposed in *Occasional Papers*, No. 2, was read by Mr Latham at the Meeting of the Association for the Promotion of Social Science held at Bradford in October last.

Encouraging communications on this subject have been received from various quarters. Mr G. Robertson, F.R.S.G., F.C.S., resident engineer at the Leith Docks, has been so kind as to favour us with the following valuable remarks:

“Having had the benefit of an education very similar to that outlined in your paper, I am enabled to give you some practical suggestions on the subject, which you are welcome to use in any way you like in the promotion of so laudable an object.

“From 1847 to 1850 I was educated at Putney College, and there acquired information, useful to a civil engineer, which I should never have obtained afterwards on works, or found time or opportunities to study in private.

“This knowledge was not so much perhaps in the subjects more immediately connected with the profession, as drawing, surveying, &c. (which can, more or less, be acquired afterwards as a pupil), as in those studies which ground a student in general science, which every engineer in after life has to be well up in.

“Mathematics, Geology, and Chemistry, I consider the foundation of a first-rate engineering education. At Putney they were to be most thoroughly learnt (by those who chose) under Cowie, Ansted, and Lyon Playfair.

“Chemistry has been especially useful to me; and, by my knowledge of it, I was enabled in 1858 to write a paper for the Institution of Civil Engineers on ‘Hydraulic Mortar,’ which gained a Telford medal, and which never could have been written by information acquired *only* in the office, even of the most distinguished engineers; and yet, which was on a subject eminently useful to the profession. Chemistry is the giant science of the day; and, though it is almost impossible for a civil engineer to keep up with it as a practical chemist, yet he may keep up such acquaintance with it as will enable him to understand, and take advantage of, many things he meets with professionally; and, at all events, he

will be a well-informed man, which goes a long way towards success in any profession.

"The great mistake made by Putney students, and which accounts for so few being heard of in the profession, was attempting to start on their own account as civil engineers, only on the knowledge acquired there, without having passed through a pupilage. Trying to climb over the wall, instead of going in at the door. This mistake I, under wise guidance, fortunately avoided; and was articled to a resident engineer on the works of the late Mr Rendel. At that time Mr Rendel was not taking any pupils himself; but, when my articles were out, he employed me without intermission till his death. Latterly Mr Rendel resumed taking pupils, and acknowledged the value of a good education by requiring *less* premium from those who had taken a degree at College. He thus acquired first-rate men; and, at the time of his death, had more than one Cambridge Wrangler in his office.

"A lower premium, and perhaps shorter pupilage, are concessions which civil engineers would be wise to grant to well educated men, instead of setting their faces against College education. They would get lower premiums certainly, but better men.

"The great obstacles to the combination of a scientific education with a practical one are the expense and the *apparently* late period at which the student begins to earn his living. I say *apparently*, because it is really early in comparison with the 'learned' professions. Besides, as a general rule, when a salary is to be got in a profession at an early age, as in Government offices, promotion is slow afterwards; and, in this case, it is not 'the early bird that gathers most straw.'

"I would strongly urge the importance of giving the scientific education *first*, and the practical one afterwards; not only, because a man should learn the reasons of things first; but because pupilage is the door into the profession which it is unwise ever to shut afterwards. The premium is given not only for information but for patronage and connection.

"I doubt if the combination (alluded to in page 12¹) of the scientific and practical, by pupils at periods attending the Universities, would be permitted by most engineers."

¹ The following is the passage alluded to: "We should leave the youths, their parents, and employers to settle whether they had better come to us before, or after, their entering on their articles; or whether they should reside

The question of the *expenses* of the education proposed, to which Mr Robertson alludes, was not entered upon in Mr Latham's Paper. The *actual* expenses of our students vary nearly as widely as those of persons of different means and different habits resident elsewhere.

Supposing students of the class in question to live in the same way as our more careful undergraduates now do ; we may conclude that from £22 to £25 a term would cover the whole expense of maintenance and all fees for instruction, &c. Students residing during Vacation time would live at a much cheaper rate, as they would pay no fees and no additional rent for occupying their rooms. There is no reason why what may be called the personal expenses of such students—for clothes, pocket-money, &c. should be greater in the University than when attending at a work-shop—there is no place where a student is more at liberty to suit such expenses to his means than he is here, and the scale of expenditure of our undergraduates is in the vast majority of instances fairly proportioned to the different modes of living to which they have been accustomed before coming here.

in the University at intervals during the period of their articles, taking advantage of any time when business at the workshop might be slack ; the circumstances and the objects of students would be so different, that our scheme on this point must be quite plastic." No doubt the alternative mentioned in the last paragraph would be by far the least satisfactory to the University ; it was only suggested to meet exceptional cases.

VI. UNIVERSITY INTELLIGENCE.

LIST OF PERSONS WHO HAVE OBTAINED SCHOLARSHIPS BY OPEN EXAMINATION PREVIOUS TO RESIDENCE.

PEMBROKE COLLEGE.

The Examination took place in June last; there were 10 competitors.

1st Scholarship, £60 per ann.	J. C. Rust, Norwich School, Rev. Dr Vincent.
2nd £40 ...	G. S. Evett, Kensington School, Rev. W. Haig Brown, M.A.
3rd £20 ...	C. S. Isaacson, Tonbridge School, Rev. J. W. Welldon, M.A.

Mr Isaacson subsequently entered at another College.

GONVILLE AND CAIUS COLLEGE.

The Examination took place in June last; 24 Candidates presented themselves.

Math. Scholarship	£50.	Francis Chancellor ¹ , Oundle School, Rev. Dr Stanbury.
Class.	£50.	Thomas Garrett, University College, London.
Scholarships given for Classics and Ma- thematics jointly.	} £30.	F. A. Ranken, St Peter's College, Radley.
		E. O. Brown, Tonbridge School.
<i>Proxime accessit.</i>		O. G. R. McWilliam, Merchant Tailors' School.

These Scholarships are tenable for the first year of residence, at the end of which the General College Examination takes place, according to the result of which other Scholarships are awarded, varying in value up to £54 per annum, and tenable up to the time of taking the B.A. Degree. In case of a Scholar's name appearing in the first class of the Classical or Mathematical Tripos, such Scholar retains his Scholarship until he is of standing to take the degree of M.A.

TRINITY HALL.

The Examination took place at Easter last; there were 15 competitors.

1st Exhibition, £50.	Bryan Walker, St Peter's School, York, Rev. W. Hey, M.A.
2nd £40.	Robert Romer, St John's Hall, Kilburn, Rev. A. F. Thomson, B.A.

¹ This gentleman was afterwards elected to a scholarship of greater value at Brazenose College, Oxford.

These Exhibitions are tenable during the first year of residence, at the end of which the General College Examinations take place, according to the result of which Scholarships are awarded, varying in amount up to £52 10s.

These Scholarships are tenable up to the time of taking the B.A. or LL.B. Degree. Law Studentships, value £50 per annum, are awarded after Degree, and held for three years.

CHRIST'S COLLEGE.

The Examination took place on the 18th of June, 1859. The successful Candidates were:

Thomas Collins, Bury St Edmund's School, Rev. A. H. Wrat-
tislaw, M.A.

Thomas Fr. Dixon, } Durham Grammar School, Rev. A. H.
William Proctor, } Holden, D.D.

Charles Isaac Stephen, King William's College, Isle of Man,
Rev. R. Dixon, D.D.

The value of the Scholarships is 15s. per week during residence, and £6 per annum in addition.

It is probable that the above and some other Colleges will hold similar examinations during the ensuing year, and particulars can be obtained on application to the Tutors of the respective Colleges.

The several notices issued relative to the Examinations of last year are inserted in *Occasional Papers*, No. II.

EXAMINATION OF STUDENTS WHO ARE NOT MEMBERS OF THE UNIVERSITY.

The SYNDICATE, in accordance with the GRACE of the SENATE, Feb. 11, 1858, have appointed the following Examiners for the Examination commencing 13th December next:

Preliminary Subjects.

Rev. W. F. Witts, M.A. Fellow of King's College. Edward Headlam, M.A. Fellow of St John's College, Civil Service Commission. Rev. J. Lamb, M.A. Fellow and Senior Dean of Gonville and Caius College. Rev. J. Fuller, Fellow and Tutor of Emmanuel College.

Religious Knowledge.

Rev. E. Harold Browne, B.D. late Fellow of Emmanuel College, Norrisian Professor of Divinity. Rev. C. J. Ellicott, B.D. late Fellow of St John's College, Professor of Divinity, King's College, London. Rev. J. B. Lightfoot, M.A. Fellow and Tutor of Trinity College.

English.

Very Rev. R. C. Trench, D.D. Trinity College, Dean of Westminster. Rev. J. P. Norris, M.A. late Fellow of Trinity College, H. M. Inspector of Schools. Rev. H. Latham, M.A. Fellow and Tutor of Trinity Hall.

Latin and Greek.

A. A. VanSittart, M.A. late Fellow of Trinity College. Rev. Joseph B. Mayor, M.A. Fellow and Lecturer of St John's College. J. Lempriere Hammond, M.A. Fellow and Assistant Tutor of Trinity College.

French.

Hugh Godfray, M.A. St John's College. Rev. J. M. Du Port, M.A. Fellow of Gonville and Caius College.

German. Rev. H. A. J. Munro, M.A. Fellow of Trinity College.

Mathematics.

Very Rev. H. Goodwin, D.D. late Fellow of Gonville and Caius College, Dean of Ely. Rev. S. G. Phear, M.A. Fellow and Tutor of Emmanuel College.

Chemistry, Electricity, and Magnetism.

G. D. Liveing, M.A. Fellow and Lecturer of St John's Coll.

Heat, Physical Optics and Acoustics, Physical Geography and Geology.

W. Hopkins, M.A. F.R.S. F.G.S. St Peter's College.

Zoology and Comparative Anatomy.

G. M. Humphry, M.D. Downing College.

Botany. C. C. Babington, M.A. F.R.S. F.L.S. St John's College.

Drawing. Richard Redgrave, Esq. R.A.

Music. W. Sterndale Bennett, Mus. D. St John's College, Professor of Music.

The following gentlemen have been appointed by the Syndicate to conduct the Examination at the several centres :

Birmingham. J. Lempriere Hammond, Esq.

Brighton. Rev. C. J. Ellicott.

Bristol. John Roberts, Esq. M.A. Fellow of Magd. Coll.

Cambridge. Rev. W. F. Witts.

Exeter. R. B. Hayward, Esq. M.A. late Fellow of St John's College.

Grantham. W. Hopkins, Esq.

Liverpool. Very Rev. the Dean of Ely. Rev. W. M. Champion, M.A. Fellow and Tutor of Queens' College.

London. G. D. Liveing, Esq.

Northampton. Rev. H. R. Luard, M.A. Fellow and Assistant Tutor of Trinity College.

Norwich. Rev. S. G. Phear.

Plymouth. Rev. J. Lamb.

W. H. BATESON, *Vice-Chancellor.*

TIME TABLE FOR JUNIOR CANDIDATES.

N.B. All Candidates will be required to satisfy the Examiners in the Subjects printed in *Italics*.

	TUESDAY, Dec. 13.	WEDNESDAY, Dec. 14.	THURSDAY, Dec. 15.	FRIDAY, Dec. 16.	SATURDAY, Dec. 17.	MONDAY, Dec. 19.
Morning.	10 to 12, Scripture.	9 to 10 $\frac{1}{2}$, <i>Arithmetic</i> . 10 $\frac{1}{2}$ to 12, English Composition.	9 to 11 $\frac{1}{2}$, Euclid I. II. Arith- metic & higher Algebra. 11 $\frac{1}{2}$ to 12, <i>Dictation</i> .	9 to 12, Euclid III. IV. VI. lower Algebra, and Trigonometry.	9 to 10, Church Catechism. 10 to 11, Whately's Evidences 11 to 12, Drawing.	9 to 12, German.
Afternoon.	2 to 2 $\frac{3}{4}$, <i>English Grammar</i> . 2 $\frac{3}{4}$ to 5, Latin (lower paper).	2 to 3 $\frac{1}{2}$, English History. 3 $\frac{1}{2}$ to 5, Geography.	2 to 3, <i>English History</i> . 3 to 4, <i>Geography</i> . 4 to 5, Trench's "Study of Words."	2 to 4, French (lower paper). 4 to 5, French (higher paper).	2 to 5, Greek.	2 to 4, Chemistry (practical).
Evening.	6 to 8, Zoology and Botany. —— Music.	6 to 8 $\frac{1}{4}$, Latin (higher paper).	6 to 8, Drawing.	6 to 8, Chemistry (paper).	6 to 8, Mechanics and Hydrostatics.	

. Additional Time will be given for Drawing when the Candidates in that subject are not otherwise engaged : but no one will be allowed to remove his drawing from the Examination Room.

Candidates will be required to *read aloud* at such time as the Examiner shall find convenient.

CAMBRIDGE, Nov. 25, 1859.

HENRY J. ROBY, M.A. Hon. Sec.

TIME TABLE FOR SENIOR CANDIDATES.

N.B. All Candidates will be required to satisfy the Examiners in the Subjects printed in *Italics*.

	TUESDAY, Dec. 13.	WEDNESDAY, Dec. 14.	THURSDAY, Dec. 15.	FRIDAY, Dec. 16.	SATURDAY, Dec. 17.	MONDAY, Dec. 19.
Morning.	10 to 12, Scripture.	9 to 10½, <i>Arithmetic</i> . 10½ to 12, <i>English</i> <i>Composition</i> .	9 to 11½, Euclid, Trigonometry and Land-Surveying.	9 to 12. Arithmetic, Algebra, and Conic Sections.	9 to 10¼, Book of Common Prayer. 10¼ to 11½, Paley's Horæ Paulinæ.	9 to 12, Applied Mathematics. 9 to 11, Music. 10 to 12, Chemistry (practical).
Afternoon.	2 to 3, <i>English History</i> . 3 to 5, English History.	2 to 4½, Latin (lower paper).	2 to 2¾, <i>English Grammar</i> . 2¾ to 4, <i>Geography</i> . 4 to 5, French (higher paper).	2 to 3½, Shakespeare's Julius Cæsar. 3½ to 5, Geography.	2 to 5, Greek. 2 to 4, Chemistry (paper).	2 to 5, German. 2 to 4, Physical Optics and Acoustics.
Evening.	6 to 8, Botany. 6 to 7½, English Law.	6 to 8, French (lower paper).	6 to 8, Latin (higher paper).	6 to 8, Heat, Magnetism and Electricity. 6 to 7, Greek (lower paper).	6 to 8, Comparative Anatomy. 6 to 7½, Political Economy.	6 to 8, Geology and Physical Geography. Questions on the History of Painting.
Time will be given for Drawing when the Candidates in that subject are not otherwise engaged, but no one will be allowed to remove his Drawing from the Examination Room. Candidates will be required to read aloud at such time as the Examiner shall find convenient.						

CAMBRIDGE, Nov. 25, 1859.

HENRY J. ROBY, M.A. Hon. Sec.

TABLE I. shewing the Number of Junior Candidates offering themselves for Examination in the several optional Subjects in December, 1859.

Place of Examination.	Part II.													Part III.															
	1							2			3	4	5	6	7		8	9	10		1			2			3		
	a	b	c	a	b	c	d	Latin.	Greek.	French.	German.	a	b	Arith., Algebra, and Eucl. I. II.	Higher Math. Subjects.	Mechanics and Hydrostatics.	Chemistry.	a	b	Geometrical Drawing.	Mechanical Drawing.	c	a	b	c	Drawing from the Flat.	Drawing from Models.	c	Music.
Birmingham..	50	40	41	36	36	36	35	36	17	40	3	37	12	7	2	3	2	3	3	2	2	2	2	10	9	8	1	1	
Brighton	32	24	24	28	28	28	24	29	9	30	6	29	8	0	1	0	1	0	0	2	1	2	2	10	10	9	1	1	
Bristol.....	51	42	43	51	51	51	48	37	12	39	1	43	22	8	3	1	0	11	0	4	19	11	13	13	11	11	11		
Cambridge ...	17	13	17	14	14	14	14	16	6	10	1	17	13	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
Exeter	31	29	30	30	30	30	30	20	1	20	0	27	7	10	0	0	0	7	7	2	14	13	13	13	1	1	1		
Grantham.....	13	12	9	12	12	11	11	10	4	8	2	11	6	2	2	1	0	0	0	0	0	0	3	3	3	0	0		
Liverpool.....	64	60	55	63	63	63	60	42	18	54	10	57	35	3	7	5	5	14	7	21	25	11	10	10	2	2			
London	66	66	49	60	60	60	60	57	15	63	14	61	21	7	3	0	0	1	1	1	1	1	10	10	7	4	4		
Northampton	14	14	9	14	14	14	14	10	0	13	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Norwich	14	13	13	10	10	10	8	11	2	12	2	13	6	2	1	0	0	0	0	0	3	3	3	2	0	0	0		
Plymouth.....	45	43	36	44	43	40	37	32	10	22	0	40	27	7	2	0	0	1	1	2	19	10	8	8	2	2	2		
Total	397	390	319	362	361	357	341	300	94	311	39	346	157	48	21	10	8	39	19	34	113	80	73	22	22	22	22		

TABLE 11. shewing the Number of Senior Candidates offering themselves for Examination in the several optional Subjects in December, 1859.

Place of Examination.	Number of Candidates.	A			B					C		D		E		F			G			H							I
		1	2	3	1	2	3	4	5	1	2	1	2	1	2	3	1	2	3	1	2	3	4	5	6	7			
		Scripture.	Common Prayer.	Paley's Hor. Paul.	English History.	Shakespeare.	Polit. Econ.	English Law.	Geography.	Latin.	Greek.	French.	German.	Euclid, Arith. and Algebra.	Higher Math. Subjects.	Chemistry.	Heat, Magn. and Elect.	Phys. Optics and Acoustics.	Comparative Anatomy.	Botany.	Physical Geogr. and Geology.	Drawing from the Flat.	Drawing from Models.	Drawing from Memory.	Linear Perspec- tive.	Imitative Colouring.	Plans, Sections, and Elevations.	Questions on Painting.	Music.
Birming.	9	9	6	7	7	6	0	0	7	5	2	6	3	5	1	0	0	0	0	1	1	3	2	2	2	0	1	2	1
Brighton .	15	13	11	5	13	11	2	2	12	14	8	9	3	14	5	2	0	0	1	1	3	4	3	4	4	2	2	2	0
Bristol . . .	7	7	6	3	6	4	1	2	4	6	5	4	2	6	5	0	0	0	0	0	1	2	2	1	1	1	1	1	1
Cambridge	3	3	3	3	1	1	0	1	1	3	2	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exeter . . .	18	17	15	17	17	5	4	4	17	16	11	4	0	15	3	0	1	1	1	0	4	9	10	8	1	1	1	1	2
Grantham	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
Liverpool.	10	10	8	8	10	7	0	0	10	8	8	8	5	8	8	0	0	0	2	2	1	3	3	3	3	1	0	0	0
London . .	14	14	13	7	14	7	2	4	13	9	3	13	1	12	7	2	2	0	0	0	1	0	0	0	0	0	0	0	0
Northamp.	3	3	3	2	3	2	0	0	3	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norwich .	2	2	2	0	2	1	0	0	2	2	1	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Plymouth	8	7	5	5	6	4	0	1	6	4	2	6	2	6	3	0	0	0	0	0	0	4	3	3	2	2	0	0	0
Total . . .	90	86	73	57	80	48	9	14	75	71	42	58	17	70	33	4	3	1	4	5	11	26	24	22	13	7	5	6	4

It will be seen by reference to the foregoing Tables that the number of candidates presenting themselves at the Local Examinations of the University of Cambridge has increased by more than 100 as compared with last year. There are a few candidates not comprised in the above Tables, owing to their papers not having been received in the proper form when the Tables were made out. It is gratifying to find that those who decline the Examination in Religious Knowledge are fewer than last year, although the whole number of candidates is considerably greater. There are but eleven who decline this branch of the Examination.

It appears that the Examinations of the two Universities attract somewhat different classes of schools. — The Grammar Schools seem to prefer the Cambridge Examination, probably both because an Examination in December does not interfere with their own Examinations, and because the higher limit of age for the Junior Students is better suited for a higher class of schools.

RULES DE JURE SUFFRAGII.

ST JOHN'S COLLEGE LODGE.

June 10, 1859.

1. As respects persons whose degrees qualifying them for voting in the Senate were completed *before* March 25, 1859 :

Every such person making application for admission to the Register, is to pay to the Vice-Chancellor *one shilling and sixpence* for every quarter of a year between the time when his name was taken off his College Boards subsequent to his first degree and March 25, 1859 ; and *five shillings and three pence* for every quarter of a year between March 25, 1859, and the time of such application.

After his admission to the Register 180 days must elapse before he acquires the right of voting.

2. As respects persons whose degrees qualifying them for voting in the Senate shall have been completed *after* March 25, 1859 :

(a) Every such person, making application for admission to the Register *on the completion of his degree*, is to pay to the Vice-Chancellor *one shilling and sixpence* for every quarter of a year between the time when his name was taken off his College Boards subsequent to his first degree and the time of such application.

He obtains the right of voting immediately after admission to the Register.

(b) Every such person, making application for admission to the Register *at any subsequent time*, is to pay to the Vice-Chan-

cellor *one shilling and sixpence* for every quarter of a year between the time when his name was taken off his College Boards subsequent to his first degree and the time of completing the degree which qualifies him for voting; and *five shillings and threepence* for every quarter of a year between the time of completing the degree which qualifies him for voting, and the time of such application.

After his admission to the Register 180 days must elapse before he acquires the right of voting.

W. H. BATESON, *Vice-Chancellor*.

LAW.

The recent alterations in the Law Degree having necessitated an alteration on the part of the Regius Professor of Law, in the Fees payable to him, he hereby gives the following Notice:—

The Fee for those gentlemen (Bachelors of Arts) who present themselves at the Examination for Law Honours, and whose names have appeared in the Mathematical or Classical Tripos, will be £2. 2s.

The Fee for those gentlemen who present themselves as Candidates for a Degree in Law will be £5. 5s.¹

The Fee for those gentlemen who are not attending with either of the above objects in view, nor for the purpose of obtaining the Professorial Certificate, will be £1. 1s. for each Term's attendance.

June, 1859.

Subjects for University Examinations. 1860.

SUBJECTS FOR THE GENERAL PREVIOUS EXAMINATION.

The Gospel of St Mark.

Paley's Evidences of Christianity.

The Elements of Euclid, Books I. II. III.; and Arithmetic.

The *Andria* of Terence.

Xenophon's *Anabasis*, Books I. and II.

This Examination commences on Monday, March 19th, 1860. Another Examination is held in the same subjects on the 8th of October for those only who have failed in the Examination in March, or been absent with the permission of the Vice-Chancellor and Proctors.

¹ All Fees for attendance at the Professor's Lectures are included in this charge.

The Second Additional Examination for Ordinary B.A. Degrees commences on Thursday, March 1st, 1860. The subjects are those of June last.

CLASSICAL SUBJECTS FOR THE B.A. DEGREE IN THE EASTER AND MICHAELMAS TERMS, 1860, AND LENT TERM, 1861.

Herodotus, Book III.

Juvenal, Satires III. and X.

The Examination in the Easter Term begins on Thursday, May 24th.

SUBJECTS FOR THE THEOLOGICAL EXAMINATION.

APRIL 17th, 1860.

The Historical Books of the Old Testament.

The Greek Testament.

The Articles of Religion.

The Liturgy of the Church of England.

Ecclesiastical History of the First Three Centuries.

History of the English Reformation.

THE SUBJECTS FOR THE ADDITIONAL EXAMINATION OF CANDIDATES FOR HONORS AT EASTER, 1860, WILL BE :

Septuagint.—The Book of Genesis.

Greek Testament.—St Paul's Epistles to the Ephesians and the Philippians, and the Epistle of St James.

Origines contra Celsum, Lib. I.

Routh's Reliquiæ Sacræ, Vol. I.

Firmiliani ad Cyprianum Epistola.

Butler.—The Analogy, Part I.

Hooker.—The Laws of Ecclesiastical Polity, Book I.

Waterland.—On the Importance of the Doctrine of the Holy Trinity.

Hebrew.—The Book of Genesis, and the Proverbs.

Students presenting themselves for Examination are required to produce certificates of having attended the Lectures delivered during one Term at least by one of the Professors of Divinity.

SUBJECTS FOR THE MORAL SCIENCES TRIPOS.

FEBRUARY 6th, 1860.

Butler's Sermons.

Whewell's Elements of Morality.

Plato's Republic.

Aristotle's Ethics.

Aristotle's Politics.

Grotius. De Jure Belli et Pacis.