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UNIVERSITY REFORM
IN SCOTLAND.

RECTORIAL ADDRESS

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LORD REAY.

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ADDRESS OF LORD REAY.

Nobody, gentlemen, could rise to address you in this place without feeling—even if he were not a Scotsman—how large a hold the University of St. Andrews must have on the veneration of Scotsmen. Here it was that the monks of the Augustinian Priory withstood the claim of the Archbishops of York and Canterbury to exercise jurisdiction over the See of St. Andrews and the whole Scottish Church. The ecclesiastical and the civil independence of Scotland found its staunchest supporters here. The “Schola Illustris,” the “Pedagogium,” besides the University itself, bear witness to the fact that St. Andrews is the traditional home of Scottish learning. It is also here that Knox matured his new faith, and strengthened himself for that struggle which was the regeneration of our countrymen, and which gave them that moral vigour which produces a ruling race. From the pulpit of this parish church was preached the first Protestant sermon in 1547, when only the College of St. Leonard’s supported Knox. Little did Archbishop Stewart, the youthful founder of St. Leonard’s College, the friend of Erasmus, foresee that Andrew Melville, the friend of Scaliger, would—as Principal Shairp has well expressed it—lay the foundation in Scotland of the “democracy and Presbyterianism imbibed at Geneva.” Principal Shairp must, however, allow me to complete his sentence, and to say that “democracy and Presbyterianism” have left Scotsmen the most loyal subjects of their Sovereigns, and have established between Dutchmen and the House of Orange those remarkably close ties which still exist at the present time. “Democracy and Presby-

terianism," as they are understood in Scotland, have hitherto proved safeguards of some value against anarchy and agnosticism.

To-day I vividly recall my own University days at Leiden, and I feel that the undergraduates who have bestowed this rectorial distinction upon me have thereby paid a compliment to my old University of Leiden, which, like the University of St. Andrews, played such a great part in the struggle for freedom. At Leiden, Stair, the greatest Scottish lawyer, studied in exile philosophy of law. At Leiden, the works of the greatest Scottish scholar—once your Principal—George Buchanan, were published in their best edition by one of its professors—Burman.

Through a curious coincidence, it has fallen to my lot to deal in the case of Amsterdam as a member of the States-General, with the extension of a teaching University to a degree-conferring University, and to deal, in the case of London, with the extension of a degree-giving University to a teaching University. I am, therefore, you will see, more familiar with the process of expanding Universities than with the process of destroying them; and you have certainly chosen as your rector, however many demerits he may have, one who does not wish to see the career of this University prematurely closed. I am sure that on this point my friends the students of both parties are of one mind. We desire to see the steady progress of the work inaugurated by Bishop Wardlaw when he founded the first University in Scotland. I think I may even venture on a bolder assertion—that the idea of closing the annals of this University is repugnant to all classes of our countrymen. In our ancestors, in their educational enthusiasm, we take a national pride; our historical conscience is sensitive and easily offended. To have been chosen at such a critical juncture to be the spokesman of the students who are the lineal descendants of such a long line of ancestors, I shall always consider to have been a signal proof of confidence of the rising generation, for which I cannot be grateful enough. The question of the continued

existence of St. Andrews is practically settled. The question of its increased usefulness is still unsettled. Reform is, I know, the question which at this moment is the one absorbing topic of interest at our Universities, and I think I cannot do better than submit to you some of the reforms which are absolutely needed to place the Scottish Universities on a level with the requirements of the present day. In an address I can only give you the principal outlines, but even then the urgency of reform will become perfectly clear. For obvious reasons I allude to the four Universities, because the magnitude of the work to be done implies that it must be carried out jointly by all four. The division of labour between the Universities is a question of executive detail with which I cannot deal.

The objects of University teaching may be considered in relation to general culture, to professional efficiency, and to scientific research and learning. If a University is considered as providing general culture, the question of organisation and of examination falls into the background. The most important regulations in that case are those which provide for a sufficient number of chairs for lectures on a variety of subjects which are necessary to impart culture. The English Universities were mainly adapted to that end, but are altering their old traditions. This remark especially applies to Cambridge. The undergraduates, who attend lectures, and who receive degrees, will then have to think of their professional studies *after* they leave the University, and no doubt will in their profession have wider views than those who have not enjoyed such a benefit. If, on the other hand, a University aims at imparting the best professional teaching, the question of organisation and of examination becomes very important, and its relation to the outside world assumes a very different aspect. Where the highest research is one of the functions of a University, we shall have to take into consideration not only how knowledge can be imparted, but how it can be created. In carrying out the reform of our Universities, we shall have to ask ourselves which of these three objects we aim at securing.

Scotland aspires to give to the Empire its best educational forces. Scotland is not hampered in this aspiration by any sectarian prejudices. The right of independent inquiry has been established long ago. There is only one solution which can be given to the problem. Scotland wishes to secure the best means of providing men of culture, of the highest professional eminence, of original research. If I may take this for granted, I must conclude that Scotland desires to have its Universities placed on such a footing that they can fulfil this threefold obligation. Are we aiming too high? When the late Principal Sir Alexander Grant spoke to me about the Tercentenary of the University of Edinburgh, I said to him: "aim high; make it a meeting of all the best University men of all countries." When I met him at the Tercentenary he said to me: "You see, we have not lost sight of your hint." Now, to any Executive Commission for the Scottish Universities I would give the same motto—Aim high. Surely Scotland can have Universities doing the same work as the Universities of Wurtemberg, Baden, and Hanover. If the German Universities are giving to Germany men of general culture, of professional merit, and of original research, is there any reason why the Scottish Universities should fall behind in the race? It is obvious that the German system, uniting these three objects, is better than the French system, which separates them.

Till lately, the French Universities were chiefly schools for providing the country with lawyers and doctors. The Faculty of Arts languished, and research was carried on in separate institutions. The French are at this moment carrying out reforms vigorously, a Belgian report on higher education is at this moment in the press, and Italy is spending money to improve its Universities.

In Germany there is, in fact, some friction between the two tendencies—one to make the Universities subservient to utilitarian purposes, and the other to discard them altogether; but the very fact of a juxtaposition of these two forces increases the vigour of University life. If,

on the one hand, the Senate of a University knows that it must provide for the professions, and on the other that it must provide for general culture and research, the Senate is much less likely to fall into a groove. Such a University will be a living organism, always keeping touch with the mainsprings of the life of the nation.

Let me take the Faculty of Law. A Faculty of Law which will have to provide for the general legal culture of statesmen, of magistrates, of landowners, for the professional efficiency of judges, of lawyers, of solicitors, of clerks in the Civil Service, and also for the higher standard of legal research of jurists, will be a better Faculty of Law than if it were to do only one of these three things. The three branches will not suffer, but the work done in one department will reap the benefit of the work done in another department. You will not wonder that I have mentioned the Faculty of Law first, because I am associated with it; and I should be most ungrateful if I did not acknowledge what I owe to my legal studies. I wish to see that Faculty in Scotland recognised as one of the principal factors of University life. Is anybody prepared to deny that scientific study of our laws is a pure and simple necessity, just as much as the study of divinity and of medicine? The health of the soul is, of course, to be placed first, the health of the body next; but is the health of the body corporate to be left to haphazard influences and experimental legislation, to be accompanied by experimental application of laws? Surely, now that we have a growing demand for more legislation on a number of subjects, the time has come to give our law-givers the means of qualifying for their work.

In France the number of law students was 5,849 during the first half-year of 1884, of which number the Faculty in Paris had 2,594. Take, again, the Civil Service; its functions are becoming more important every day, and more complicated. Where is the proper place to educate these Civil Servants? In a Faculty of Law, which would do for us what the *Ecole des Sciences Politiques* is doing

for France. Do not forget that Lords Brougham, Russell and Palmerston were students in Edinburgh, where they found what Oxford and Cambridge did not offer to them. Now Cambridge has instituted a Modern History Tripos, an Amended Law Tripos, a Modern Language Tripos, a Tripos of the Indian and a Tripos of the Semitic languages.

It is clear that we have to give to our Law Faculty a twofold character, as the Germans have done, devoting part of it to public law and another part to civil law. Judges, lawyers and solicitors would avail themselves of the latter; public men, diplomatists, civil servants, of the former. Without giving anything like an exhaustive list of the Chairs which such a Faculty should possess, I shall only mention those which are absolutely needful: the philosophy of law, comparative politics and jurisprudence, civil law and procedure, criminal law and procedure, constitutional law, administrative law, constitutional relations between the mother country and the colonies, including, of course, colonial institutions, public international law, private international law, political economy, history of diplomatic relations, medical jurisprudence, legal drafting, commercial law, statistics which would include the history of financial legislation and its influence on public prosperity.

I only propose to restore in our University practice an ancient Scottish statute, which contains the precept: "It is ordained that all barons and freeholders that are of substance put their eldest sons and heirs to the schools from they be eight or nine years of age, and to remain at the grammar schools till they are competently founded, and have perfect Latin; and thereafter to remain three years at the schools of art and law, so that they may have knowledge and understanding of the law, through which justice may reign universally through all the realm." I do not propose to limit this to barons and Latin scholars. I am happy to know that I am addressing as my constituents the sons of crofters, to whom I have thrown open the bursary in my gift.

Are we to uphold the teaching of divinity at our

Universities? On this point alone I might have given you a rectorial address; but I shall attempt to put my views in a concise form. I suppose that we are all agreed that Scotland derives its character in no small degree from Presbyterianism. The sobriety of thought, the dourness of the Scottish intellect, are products of a creed which above all things is logical. The nation, besides, is attached to that creed. The nation, therefore, is entitled to obtain for the exponents of that creed the very best education.

But there are other considerations. Is a University complete which has no Theological Faculty? Bacon calls theology "the queen of sciences," and certainly the relations of man to his Creator cannot be left out. They form a necessary link in the chain. Aristotle speaks of "the mind and everything which is by means of man" as one of the causes of the things that take place. If you cannot leave out this cause you cannot leave out the most powerful influence which works on the mind of man. If the mind of man is subject to a higher influence, it becomes all-important to obtain as much knowledge as we can obtain about that higher influence. The philanthropic current which undoubtedly runs through modern society, the threatening aspect of socialism, make the study of the relations of man to Society and of man and society to God imperative. It is therefore of equal moment that the theologian should not be isolated, but should feel that he is representing a science which is closely connected with other sciences.

In the third century Origen trained his hearers in the use of words, in logic, physics, geometry, astronomy, ethical science, and philosophy, before they approached theology. Presbyterians repudiate the notion of a priestly caste, trained in seminaries, and a Faculty of Theology is the natural home of Presbyterian research. Who can describe the influence exerted in the most remote Highland parish by a minister trained at one of our Universities; and who can estimate the loss inflicted on Scottish civilization if our ministry were no longer to be University men, but stunted in their intellectual growth.

by a process of sectarian cram. If Protestantism is established in the hearts of the people of Scotland—and this is the only establishment which any Church should be jealous of—if the people of Scotland wish to have a clergy who are theologians, and who, as such, have grasped the relation of theology to other sciences, they must insist on their clergy being recruited at National Universities. I, for one, cannot conceive greater sophistry than is implied in Pope's lines—

For modes of faith, let graceless zealots fight;
His can't be wrong whose life is in the right,—

because Pope severs the mode of life from the mode of faith. Without a careful study of "the mode of faith" of Scotsmen, Scottish history is unintelligible.

The debt of gratitude which the Scottish people owe to the Scottish Presbyterian clergy would be repaid with the basest ingratitude if the Faculty of Divinity were to be exiled from its proper place. The loss to Scottish civilization would be equally great. The French Chamber has just put an end to the Roman Catholic Faculties of Theology, of which Dante was once an undergraduate at Paris, but it has paid a marked tribute to Presbyterianism. It has left the Presbyterian Faculties standing, because the Presbyterians pointed out that a University degree was a necessity to them. Let me also point out that the faculty of Paris is open equally to Calvinists and Lutherans. All that we require in Scotland is a Faculty, in which the Chairs will be occupied by the best men in all the Reformed Churches.

There are no practical difficulties. Those who put them forth lose sight of the functions of a University on the one side, and of the wants of the people on the other; and as 90 per cent. of the population of Scotland belong to one or other of the three leading sections of the Presbyterian Church, these three sections are mainly entitled to be represented in the Faculty of Divinity. A University without a Faculty of Divinity is incomplete. The subject-matter to which all the Faculties contribute,

would not be thoroughly investigated. Pasteur paid a tribute to theology when he said, in his inaugural address to the Académie:—"The man who proclaims the Infinite (and no one can avoid it) accumulates in that affirmation more of the supernatural than can be found in all the miracles recorded in all religions." If a University is, as I said, a place of research, I should like to ask an Agnostic whether he does not think that a Faculty of Divinity is needed, even from his point of view, to conduct research in the highest sphere, as to the attributes of what Herbert Spencer calls "a first cause," which, as he says, is "infinite and absolute." Are teachers to be trained at our Universities? In St. Andrews, at all events, it would be ungraceful to give a negative reply, in the presence of the Professor of the history, theory, and practice of education. But it would be unpardonable to treat the subject as one of minor importance. An army of teachers, an army of examiners, is spread all over the country. Can anybody for one single moment believe that these armies can operate with skill unless they are instructed in tactics? Of all astounding assertions the most astonishing certainly is, that the men who are to teach theories, who are to test theories, are themselves not to be taught the theory of their own art. It is to the honour of the Universities of St. Andrews and of Edinburgh that this glaring defect has been mitigated. Do you require method in education? You probably admit this. How is method to be obtained in education? Only by the pursuit of the philosophy of education. An educator must find out by what means subject-matter is most rapidly, and at the same time most thoroughly, assimilated; under what conditions that process of assimilation has to be carried on; what are the circumstances which militate against its success. The whole question of "cram," the question of "over-work," the question of modern *versus* classical education, the limits of secondary and of higher education, the neglect on the Continent of physical education—in one word, the growth of mind, body, and soul—are problems which cannot be left to

the solution of men who have simply a practical turn for teaching.

We are not contending for an examination in the philosophy, art and history of education as the *sole* qualification of teachers. On the contrary, instead of the rough practical test you now apply, you will be able to apply a test by which that practical efficiency which you naturally require, can be tried, because you will see whether practice and theory are in harmony. Good practice in education as well as in games is simply an example of the theory, which is the rule. A successful practical teacher is simply a teacher who carries on his business on the understanding that he will not depart from certain laws, which are a theory, after all, whether he likes to admit it or not.

If we have training colleges for our schoolmasters, why should we be without training for our teachers in the department of secondary education? And if such training is wanted, the University is the natural place for it. All graduates formerly were obliged to teach for two or three years; this sufficiently shows what then was considered the main object of a University education. If secondary education is to be a success, it will depend mainly on the way in which the Universities will fulfil their duties in this respect. It is one of the highest functions which the Universities have to discharge. Work at the University will be made more profitable if the work which precedes a University career is performed according to the method which will enable a student at once to feel himself at home when he attends University lectures.

In training an efficient staff of teachers for secondary education, and training them on the same lines as the future University Professors, the Universities increase their own efficiency. In Germany the teachers and masters in the middle schools and gymnasia are all educated at the universities. In France, strenuous efforts are made to reach the same goal.

The Scottish Universities are desirous of reaching another

stratum. They wish to secure the supervision of the training of primary teachers. As long as our schools are not merely primary, but contain a secondary element, it is natural that the Universities should entertain this wish, though the training colleges are doing admirable work. We cannot, I believe, transform the Universities into the sole training schools of primary teachers without results which would prove disastrous; but to obtain the fullest recognition from the Education Department for those who are training to be schoolmasters, and who are attending classes at the Universities, I consider only just. Closer connection of the training colleges with the Universities is also desirable.

It is a remarkable fact that in Germany, even for secondary teachers, a training college has been established by Professor Stoy at Jena, which shows that, even for that higher class of teachers, the training colleges are considered not altogether superfluous by some pedagogues. Important information on this subject will be found in two reports of 1883 on the Herbart-Stoy-Ziller system, by the Directors in the province of Saxony.

We agree with the late Monsieur Dumont, whose premature death has inflicted a terrible loss on University reform in France, that "care should be taken not to make of higher education a kind of secondary education of a more refined order." We wish our Universities to be levelled up, but—if we are confronted with this dilemma—the youth from the rural districts of Scotland must either have the higher part of their secondary education at the Universities or none at all—I for one am not a sufficiently hardened doctrinaire to slam the door of the Universities in their faces. Generations of our countrymen have valued this privilege. I do not wish to take away the ideal of culture which now gives a higher tone to the rural classes of Scotland, and which is unequalled in any other country. It is clear, however, that merely preparatory classes in the Faculties of Arts and of Science should not in any way interfere with the higher work which is the proper sphere of professors.

Are we to have a separate Faculty of Science? I should say certainly. Just look at the field covered by a Faculty of Science. It is preparatory for medical science, and our engineers, our manufacturers, our analysts, our botanists, our zoologists, our astronomers, our naval constructors, our geologists, our biologists, our physiologists, our mineralogists, our agriculturalists, should obtain scientific degrees. I do not see why a Faculty having such an immense area should remain linked with another which has quite different objects to pursue.

The same work done by the French Ecole Polytechnique I wish to see done at the Universities; and if the Germans have lately spent £340,000 on a new college for technical education at Berlin, I should like to ask what possible reason can be adduced for stinting science-teaching in Scotland at a moment when the report on technical instruction has pointed out that "theoretical knowledge and scientific training are of pre-eminent importance, as in the case of the manufacturer of fine chemicals, or in that of the metallurgical chemist, or the electrical engineer, the higher technical instruction may with advantage be extended to the age of twenty and twenty-two." Here, then, is a clear case even for a Philistine to grant Government aid. If we are to hold our own in manufactures, if we do not want to go abroad for scientific managers of our works, then give to our Universities the full equipment which is necessary to bring science up to the highest level. The University of Edinburgh has done well in establishing Chairs of Agriculture and of Engineering; but this is merely a small beginning. The Scottish Universities are, by their constitution, by their popular instincts, well adapted to spread their wings into this vast field of what I should like to call the higher education of the classes who are the actual producers of the wealth of the nation. The sooner this gap is filled up the better it will be for the country; and it constitutes another claim on the Government.

There is a peculiar aptness in giving what I should

like to call a purely modern side to the Scottish Universities. They have not had the benefit of large endowments, but their most important endowment hitherto has been the value put upon a University education by various professions in Scotland which in England do not by any means show the same appreciation of it. That is a character which they should carefully preserve and extend. The demand which is at present strong for scientific training in walks of life in which it has hitherto been neglected should be responded to by the Scottish Universities without a moment's hesitation. Of course, that department will have to bid good-bye to classics; but if we draw into the charmed circle of University life those whose influence on our material and social progress is very great indeed, we shall simply have done for our generation what the founders of our Universities intended to do for theirs. Science is the great renovator of this century; whatever may be material in its objects, will by contact in the University, be counteracted by other influences.

The golden words of not the least eminent of my predecessors on the recognition due to art and poetry in a University will not have faded from your memory. I may not agree with all the arguments used by Stuart Mill, but I certainly should wish to give to art and poetry in this modern side of our Universities a prominent place. Those professions which will be allured to the Universities by throwing open to them the science classes will certainly be all the better for the development of their imaginative faculties, and these are easily roused in a Scotsman, however much he may have been malignd on account of his Puritanical notions.

With reference to the Science faculty, I should like to make a remark which applies also to the other faculties, but very specially to this faculty. I should wish to give it considerable power to establish lectureships in any special subject for which a specially gifted man should be found. Though the number of his pupils might be very limited, the publication of the results of his research carried on at the University and through it, would raise the University in what I should

like to call the international scale. Besides, the knowledge of such prizes being attainable would stimulate original research among the most brilliant undergraduates. I wish those lecturers to be incorporated in the University. I admit that I would rather see those lecturers organised in the University than competing with the University outside its gates. We had better use our resources—scanty as they are—to give a complete organisation to our Universities before we think of squandering our intellectual treasures by establishing competing institutions. These lecturers should, of course, be supplied with all the best tools. As scientific lectures of the more recondite character will necessarily only be attended by a few students, it is obvious that remuneration in this case must be mainly independent of fees, whatever may be the system adopted in other cases. What I am pleading for is simply the immediate and constant annexation of any scientific specialist by one of our Universities. These lecturers would of course represent a different category from those who would undertake the burden of elementary lectures, leaving to the professors the comprehensive view, and consequently the highest teaching of their subject.

On the extreme importance of giving to the Scottish Universities a full complement of laboratories I need not insist. The excellent work done at our University in that branch of scientific investigation, so important to one of our foremost national industries—namely, zoological marine research—cannot any longer be ignored. The generous devotion shown by Professor M^rIntosh is deserving of the fullest recognition. The meteorological observatory on Ben Nevis—though not attached to any of our Universities, yet worked by their professors and students—deserves our hearty sympathy. Both are experiments whose success may in no distant future increase largely the food supply of the people. To those who may doubt the expediency of strengthening the higher science teaching in Scotland by creating a separate faculty of science, I shall simply recall this fact, that in the Netherlands there are four science faculties with forty-one professors. The

creation of a new faculty is further provided for in the original Bull of Pope Benedict XIII., of 1413, which says:—"We found and institute a University in the said city of St. Andrews, for theology, canon and civil law, arts, medicine, and other lawful faculties."

What I have observed about the Faculty of Science applies to the Medical Faculty, about which little need be said, as it has attained European fame by adopting many of those improvements which I am recommending for the other Faculties. Nothing that it can possibly require should be refused to it. The Science and the Medical Faculties at this University have, I believe, a splendid opening, if they make the most of Miss Baxter's grand foundation in the neighbouring town. Science itself is paving the way, bridging over the difficulty. On this side of the Tay you have the old associations; on the other side you have the vitality of modern progress. Remain separated, and you are weak on both sides; unite, and you double your strength. The distance will be smaller than that between a West End and an East End hospital belonging to the new London University. You are the oldest family among the Universities; take heed that by haughty isolation you may not meet with the tragic fate of extinction. And to my Dundee friends I would say: You have the means of building your future glory on the sure foundation of the experience of centuries. Let your College be the fourth constellation in the St. Andrew's planetary system. The ideal of a University is the blending of the ancient and modern.

About the Faculty of Arts I can be very brief, because its needs, as well as those of the Faculty of Medicine, are least likely to be overlooked by any Executive Commission, and because it has an exalted position, which I shall not impugn except where it attempts to monopolise and thereby to destroy the increased usefulness of the Universities. Besides a very complete staff for keeping up its philosophical and classical traditions, I wish to see its philological efficiency increased and provision made for modern literature. At Leipsic there are the

following Chairs: an ordinary professor and two lecturers for French, two ordinary professors and four lecturers for Teutonic, one ordinary professor for English, whose class is attended by 300 students; one lecturer for Italian, and one for Spanish; one professor and two lecturers for Slavonic. The great importance of developing this essential element in a Faculty of Arts is clear if our Universities are to undertake what I have included in the Faculty of Science as the new polytechnic part.

In his evidence before the Universities Commission, Professor Ramsay, of the Glasgow University, said—"What we feel to be the characteristic of our system is, that with us the teaching is the main thing, and the examination is subordinated to it. At Oxford the cry of University reformers is that the teaching is entirely dwarfed and controlled by the examinations." I may quote still further: "The teaching given in the classes is the most valuable portion of our Scottish University system, and it would be simply a miserable policy to make our degrees popular (as some people call it) by making them represent less culture." The only essential element of success in a University is that its teaching should be first-rate. Whether it leads to a degree and how it leads to a degree are matters not unimportant, but they are not essential. A University without prescribed courses, without examinations, and without degrees, is conceivable. A University out of which men emerge with degrees but untaught, as they did during the last century in Oxford and Cambridge, is not a University. Of course, as our Universities are professional schools, courses will have to be prescribed as avenues to various professions.

I am altogether in favour of qualifying for professions by a University degree and not by State examinations, which is the German system. As the needs of professions constantly vary, and as new professions constantly require University training, I do not wish to draw a very hard and fast line, but I would give to the various Faculties very elastic powers of determining what courses of study and what variety of examinations for

degrees they should prescribe. To stereotype either an entrance examination, or the entrance to the lectures of a Faculty, or the examinations for degrees, would be very injudicious. The avenues to and from the University should be wide. Excellence in each special department will be more easy of attainment the less you aim at uniformity. The tendency of science in all directions is subdivision. The more flexible your system is the better; the more alternative courses you open, the more your Universities will prosper. What is wanted is a machinery by which the University can constantly adjust its resources to supply needs as they arise. Finality in University reform may suit the Treasury, but you cannot make a bargain with knowledge, which is an expanding quantity. The Treasury cannot hold a perpetual season ticket for the Scottish Universities. The days of the "trivium" and of the "quadrivium" are not likely to recur. Let us see what is the expenditure which foreign Governments and Parliaments consider imperative. In 1868 the French Government only spent £8,000 on University education; the estimates now are £400,000, besides extraordinary estimates, to which the State, the "Department," and the "Communes" contribute. Since 1868, Parliament, the representatives of "Departments" and of "Communes," have voted close upon seven millions for buildings used by higher educational institutions, of which the Government contribute one million and a fifth, the towns more than four. Between 1868 and 1878 thirty Chairs were created in the Faculties of Science and Arts, besides eighty-nine lectureships. From 1878 to 1884 the Faculties of Science were endowed with four new Chairs and several laboratories, and the Faculties of Arts with fifteen new chairs. At the present moment, the first have 78 lecturers and the latter 111, divided in "cours complémentaires" and "Maîtrises de Conférences." The first embrace Sanskrit, Semitic languages, Romance languages, and literature of the middle ages—the latter are supplementary lectures to those given by the professors. They are chiefly intended for those who wish to teach in their turn.

M. Waddington, the present French Ambassador in London, was the founder of 300 bursaries, and now there are 516. The Faculty of Arts, which was called "la petite faculté," has now been raised from the slough of despond to a much higher level, and is no longer what it was twenty years ago—without pupils. The Sorbonne now boasts of a thousand *bonâ fide* undergraduates in arts and science. On the 24th of January of last year, M. Fallières, Minister of Education, told the Senate that he required one million and a fifth more to put the Faculties on such a footing that they could compete with foreign Universities.

In the Netherlands in 1876, the last year before the new Act was in operation, a sum of £62,000 was spent; the estimates for 1885 amount to £136,000 for University education alone.

Let us see what has been spent on the University of Strasburg. Its new buildings, or rather palaces, were opened on the 29th October of last year. The Académie of Strasburg was transformed into a University by an Imperial decree of the 11th December, 1871, the very day (mark the coincidence) that the additional convention was signed of the treaty of peace at Frankfort. Since the annexation, £640,000 have been spent on buildings, £71,400 on the library, and the annual estimates exceed £40,000 for the University, and come up to £6,000 for the library. Of these buildings the Chemical Institute amounts to £35,000; the Institute for Physics to £28,000; the Botanical Institute to £26,000; the Observatory to £25,000; the Anatomical Institute to £42,000; the Clinical Surgery to £26,000; the Institute of Physiological Chemistry to £16,000; and the Physiological Institute to £13,900. The University had 858 matriculated students, and of these 100 quite filled the Institute for Organic and Inorganic Chemistry, which cannot hold more. There are 73 ordinary professors and 19 extraordinary. This is done for less than 1,000 students. What is done in Scotland for seven times the number?

The question of University reform in Scotland is not

merely an educational question. It is a question of practical importance to anybody who looks at political questions from a statesman-like point of view. The chief wealth of Scotland consists in the natural resources of Scottish brains. The development of brain-power on a wide scale is what a Scottish statesman has to look to. If we had a Scottish Parliament sitting in Edinburgh, I have no doubt that the organisation of the Universities would be the first number on the legislative programme. There were Scottish University Commissions in 1567, 1574, 1652, 1661, and 1690, and the Act of Union guaranteed the existence of the four Universities. We have scattered doctors and surgeons broadcast over the Empire, why should we not do the same for other professions? If the University of St. Andrews has given a headmaster to Westminster, there is no reason why the University of Edinburgh should not give one to Harrow, and why the University of Glasgow should not give to Eton the head of its science department, or Aberdeen another Arnold to Rugby.

If we are to make our Universities what they ought to be, without having a Parliament of our own, we must impress the Parliament, in which we play such a very meek part, with the sense that we are in earnest. We must convince them that we are not asking for University reform as a luxury but as a right. It is clearly a right of Scotsmen to have the same means of education which are at the disposal of the people of Baden. This is not a question of local importance. It concerns the greatness of the Empire. Development of more brain-power in Scotland means increased national efficiency and less danger from democratic ignorance.

Our position is unassailable; on one condition, however—that our Universities should present a joint front. They are the representatives in the country of its noblest and highest aspirations. They should combine to convince the Government that they do not urge selfish claims, but the most imperative needs which any nation can plead. We cannot ask the Government to put each of the four Univer-

sities on the same footing as the University of Strasburg; but we have a right to expect that everything which is taught at Strasburg should at least be taught at one of the four Universities. To secure the success of the reform of the Universities, I would impress on the Senates of the four Universities the paramount obligation of establishing a temporary federation to secure a maximum of advantages by division of labour. Such a federation was contemplated in the seventeenth century. These are the—"Overtours of the 20th August, 1641, concerning ye Universities of this kingdome to be represented be the Generall Assemblie to ye Kingis Majestie and Parliament—first, becaus the good estate both of the Kirk and comone wealth dependeth mainly from the flourishing of universities and colleges as ye seminaries of both, quilk cannot be expected unless ye poore means quilk they have be helped, and sufficient revenues be provided for them, and the same weill employed. Thairfore, that out of the rent of prelacies, collegiate, or chapter kirkes, or syclike, a sufficient maintenance be provyded for a competent number of professors, teachers, and bursars in all faculties, especiallie in divinitie, and for upholding, repairing, and enlairging ye fabrik of the colleges, furnishing of libraries, and sidyk good uses in everie universitie and colledge. Nixt, for keiping of good order, preveining, and removeing of abuses and promoteing of pietie and learning, it is very needful and expediet that there be a communioun and correspondence keipit betwixt all the universities and colleges, and thairfore that it be ordained that thair be a meiting ones everie yeire at sic times and places as sal be agreit upon of commissioners from everie universitie and colledge, to consult and determine upon thair commone affaires, and whatsoever may concern them for the end above speit, and wha also, or some of thair number, may represent what sal be neidfull and expedient for the same effect to Parliamint and Gnall Assemblies. Item, that speiall cair be had that the places of the professors, especially of professors of divinitie, in everie universitie and colledge be filled with the ablest men and best

affected to the Reformatioun and order of this Kirk." In this document we do not find the advice to the Regents with which the memorial of the visitation of 1588 concludes—"Forbid their quarelling . . . albeit it be not altogether prohibit that they may flyte (scold), yet forbid fechtung or bearing of daggis or swerdis." This advice, however, would be perfectly appropriate to the German Universities, if they were to have a "visitation" in 1888.

Nothing will damage the cause of University reform more than what I shall venture to call a competitive scramble by each individual University for the spoils. Nothing will raise the influence of the Scottish Universities more than the conviction that they are not pleading for the private interests of their own house but for the undoubted public interest of placing the Scottish Universities in their collective capacity on the highest level attained by Universities elsewhere. We cannot ask for four Chairs of the History of Art, or of International Law, but we certainly ought to have one.

Gentlemen, I am sadly conscious that I have not spoken to you with the authority of my illustrious predecessors; I have spoken under a deep sense of responsibility. I know that many of my friends deprecate alarm, because of foreign warlike preparations; but, without entering on this vexatious question, you must allow me to confess that I am an educational alarmist. When I see the educational armaments of France and Germany constantly strengthened, and when I know what a splendid University London cannot fail to acquire, I must look upon Mr. Courtney's proportionate representation of Scotland on the educational estimates as a bad illustration of the representation of minorities. The rights of the educational conscience of Scotland must be vindicated. On the Government we have a distinct claim. Nobody has ever maintained that the Government could leave our Universities to their fate. Twenty years elapsed after the Reformation before a Commission undertook the Universities. It ought not to take twenty years before a Secretary for Scotland lays on the table of the House of Commons the report of our

Executive Commission. The very fact that Oxford and Cambridge are self-supporting gives strength to our claim, because an advance made by the Government north of the Tweed must stimulate advance south of the Tweed. In educational matters it is the function of Scotland to act as a stimulant to England. The reforms I propose are, I admit, of a very thorough-going, but mainly constructive, character.

Speaking in this ancient centre of Scottish learning, I am not conscious that I have said anything which need in any way offend our ancestors if they were present. The tradition I most value is that tradition of moral strength, of moral character, and of moral tone which our ancestors have left us as their most precious legacy. It is as if I heard their voice thus addressing the rising generation of Scotsmen: Repudiate everything that is unreal; respect only that which is simple and true. With small means we achieved great things; with the wealth of knowledge you now possess, achieve greater things.