

thing. The regnant, the towering consideration is the public welfare. The world cannot afford that any truth or any representation which an intelligent and honest teacher believes to be the truth should be forcibly kept under cover. Part of what professors teach may be false of course. All the more let it be aired that it may be refuted and we know its untruth. If the teaching is the truth, all agree that it ought to be published, though the whole world at first deride the prophet who lifts his voice to proclaim it. The more any theory snubs our preconceptions the more ought we to wish it opened to the world and put to proof.

My other remark is that state universities are more than any others bound to stand for academic liberty against whatever influences threaten to lessen this. Says Henry C. Adams in his recent work on the Functions and Revenues of Government.

"It is essential for the modern state to support public instruction, because there is no other way to guard against the fading of its ideals through the rise of an aristocracy of learning. It is natural that institutions that look to the wealthy for further endowments should be influenced in their administration by the interests of the wealthy class; and it requires no great insight to perceive that the final result of exclusive reliance upon private benefactions for any phase or grade of education will be that the instruction provided will not only reflect the interests of a class but will be confined to a class. A state which aims to perpetuate democracy cannot decline to make ample provision at public expense for all phases and forms of education. In no other way can a system of public instruction, which is by far the most potent agency in shaping civilization, be brought to the support of democracy."

Another indictment relative to university teaching touches the manner rather than the matter of it, and it has, I must say, a good deal of justification. If college and university teachers could be brought to honest confession nearly all would in sackcloth and ashes plead guilty to one monstrous sin, that of inattention to pedagogical principles. The recent flood of pedagogical interest, which has so refreshed the whole field of common school teaching, has apparently left the sand-wastes of higher instruction-giving as arid as ever. I do not mean that we have not reformed the curriculum, for we have. We have also improved our scholarship, our acquaintance with our several departments. But a capital shortcoming continues in the fact that we resolutely spurn the art of imparting knowledge. The few who teach thoroughly will do so, I fear, more by innate knack than by rationally acquired method, while those of us gifted with no such knack, however, will we do, fall far short of ideal success.

How few instructors cultivate good voice or expressive gestures; how many enunciate poorly and use the nose as a vocal organ! There is in most university teaching little effort duly to intersperse serious with lighter matter in order to arouse and conserve interest, little planning to utilize to the utmost every classroom period, not wasting a second.

Suppose one of us selected by lot were to be asked questions like the following? What is the psychological order of presenting your several topics in such or such a course taught by you? Which among these topics do you most emphasize and why? How and how frequently do you have the class review? What is the true end or aim to be had in view in an examination, and what sort of an examination ought to be set in order to compass that end? I am afraid that many a professor thus catechized would be found rather badly at sea.

Again, at what stage in the average pupil's advancement does the general use of inductive teaching become safe? I have a feeling that in work for the bachelor in inductive teaching, that is, the investigator's method as contrasted with the expositor's method, is too common, and that this accounts for much of students' inability to grasp large or complex subjects firmly. I should be only too glad to have the suspicion confirmed or refuted, but can find few who have given the problem thought. We are, to be sure, devoting much time—possibly too much—to graphic methods, projection and the like, but the general subject of illustrative presentations as a serious pedagogical device is, so far as I am aware, little considered by college men.

Must we not, most of us, acknowledge that we study quite too little the logic of our subjects, the relation in each, of part to part, that slipshod reasoning defaces our prelections and our pupils' performances and that we allow terms' works' of pupils' attainments to pass which are mere agglomerations of isolated data, wholly wanting logical connection?

One result of our thus ignoring logic is the poor writing which not a few quite advanced students display particularly when they undertake pieces of considerable length. Many a writer is perfectly triumphant with the sentence, the paragraph and the short article, but soon suffers vertigo if he attempts lengthy and continuous composition.

In his commencement address at the university of Michigan last June, Professor Coulter, of the university of Chicago, not only declares much of the teaching in American universities disgracefully poor, but alleges in a most pessimistic tone that our worst in this matter has by no means been reached. He thinks the emphasis now laid upon research to blame for our poor teaching, arguing that success in research and in the impartation of instruction are incompatible.

For my part I cannot agree to this. Ability in investigation and ability in exposition are not in the nature of mild contradictory or inversely proportional. If they are rarely found together today it is because university faculties have so neglected pedagogy. The idea has come to prevail that if a teacher lacks ability in imparting it is a congenital misfortune which must curse him forever. I incline to think that within large limits studied

effort to impart or expound well is a positive aid to successful investigation. Unless I am mistaken, most departments of university instruction are as yet a great way from perfect pedagogical organization, owing to the desultory manner in which they have grown up. The various courses of a department overlap both in method and in matter, lacking the crisp individuality which pedagogical order would prescribe. When a professor is alone in a large department, occupying a "settee" as Oliver Wendell Holmes once put it, instead of a chair, the best he can do to carry along his many classes is in each course to weave together, snatching here a little and there a little, matter—sure to be rather heterogeneous—upon the lines with which he is most familiar. The circumstances force him to proceed with slender attention to the proper nature of each course as related to the rest. His "elementary" course, or what he terms such, will embrace some pet expositions of difficult points, while the "advanced" courses will in parts never shed their elementary look. All this is excusable in the youth or poverty of a department, but intolerable when dire necessity is past.

An Ideal Organization.

The ideal organization for the teaching force of a fully-manned department in a university would be a small number of general courses for students—beginners in the department or otherwise—who for any reason did not wish, as yet or perhaps ever, to specialize in it, and a very large assortment of particular courses, canvassing, among them, every newest and most recalcitrant phase of the subject or subjects in charge of the department. A general student could thus learn something of every part; a special student everything of some part. Perhaps no university on earth has the force to organize thus ideally any segment of instruction in it, but the ideal is nevertheless a helpful one to bear in mind.

In passing we must remark that a university department frequented by masters and doctors studying to become professors in their subject would need one course additional to the above and of a peculiar nature, tracing the historical development of the subject and expounding its cyclopedia and methodology. Such courses are common in German universities. With us they are extremely rare, demand here being as yet insufficient to evoke supply. Yet in an ideal organization of university studies properly so-called courses of this very advanced character would certainly have to be provided.

Without going so far, without reaching or even nearing that ideal, we might in most departments have a better arrangement of "extensive" and "intensive" courses—I like these terms better—than is now usual. Even the most "extensive" course offered by a department should differ considerably from the ordinary introductory course. It should not have callow pupils alone or mainly in view, therefore should not be particularly easy. It should suit the needs of capable and advanced students who, while pushing specialties in other territories, wish to know thoroughly as much as they can of the land covered by this particular department.

American universities present few courses of this most useful order. Learned men often seem to think it beneath them to construct general courses, a whim which Lombroso might cite as another proof that genius and insanity are twins. With all respect for microscopic specializing, earnestly to be encouraged in every way, I so far risk my life as to say that it takes higher talent to frame a good course on the salient facts and laws of biology as a whole, than it does to frame a good course on the possible significance of a suspected new convolution in the superior anterior lobe in the brain of a rare species of butterfly.

A professor's deepest art, best mentality and richest stores of information may well be put into a single course sweeping over his entire field. At the university of Munich I heard Friedrich Jodl presenting in a one-year course a most useful resume of the history of philosophy from Thales to Lotze. Baumann of Göttingen used to have a similar course and so did Kuno Fischer at Heidelberg. The whole of political economy could be set forth in this summary way, as could physics, chemistry, even mathematics.

In most departments one good extensive course of this sort would suffice, but a department with an abundant force might have two or perhaps three of these extensive courses, varying in their length, in their points of view, in their severity and in the sorts of matter by them presented, somewhat according to the idiosyncrasies of the professors offering them. Then there would naturally be added as many "intensive" courses as your force could provide, treating as far as possible all the various fields, sections and sub-sections of the department's subject, its most recalcitrant phases and inquiries, and the newest discussions and discoveries to it pertaining.

Elective Studies.

Given such an arrangement of courses, the problem of elective studies would shed most of its seriousness. In non-technical study above the high school grade the general principle of election is sound, but the ill-organization of the teaching in many institutions lends color to the complaint that election is here and there too early begun and too absolute. Courses of study being scientifically constructed and classified, a pupil may well enough be left to himself under the simple condition that say one-third of all the courses he takes must be extensive, representing so many different departments, and all the rest intensive, representing not less than two or more than three departments.

Such an arrangement would prevent the narrowness now so justly complained of in the attainments of many brilliant pupils at graduation. A young pupil who has had no opportunity to acquire intellectual atmosphere or horizon is introduced to some limited range of learning—Greek, Latin, mathematics, German,

French, physics, chemistry—and then permitted to go on electing studies in that same little specialty till he has credits enough to graduate. I maintain that this is a grave evil, however numerous or distinguished the institutions so practicing. The simple plan which I have suggested would force each pupil to a larger view. He might at last become a specialist in Greek, in irrigation, or in the housing of the poor, but he would be a safer and more promising specialist than many whom we have known.

I mention with the utmost humility that I should myself like to restrict election by pupils at still one additional point, insisting that every candidate for the bachelorship should take for at least two semesters a course in some form of practical work involving the eye or the hand, or both. The world needs high class executive and motor ability more than it needs logical acumen, mental stores or speculative genius. I account the classical and literary students in this university positively fortunate in that they are here forced into contact with so many departments where learning is largely got by doing. Learning needs to be shored—nay, annealed to life more than it has been. It is in its relative failure to produce executive and motor efficiency that higher education is most lacking. If I had my way, therefore, I would permit a pupil to graduate as bachelor only on the condition that he should not merely master a number of subjects mentally, but should in addition do or make something concrete and useful. He should create a ruler, a hammer, a pair of tongs, a door, a tool chest, a jackscrew, a wagon wheel, or he should responsibly survey a section of land or keep double entry a set of books. A woman student should be required to work out for instance an elegant design for some useful object or to create the object itself from a design of some one else. A painting or a drawing would answer very well this executive requirement, as would a worthy piece of musical composition or the ability to sing, play, or conduct well.

The Practical Spirit.

For the infusion of a somewhat more practical spirit into higher education there are many strong reasons. The atmosphere of most university communities is still a bit malarial with pride of scholarship. The bookish fellow with his starch and hauteur, the prig, the pedant, the intellectual pharisee is still with us. He thinks letters not made for man but man for letters. His learning often renders the pedant also a recluse. The monk's monastery is gone, obliging him to walk abroad more or less, but in spirit he is still a monk. Instead of saying, "Nothing that is human do I account alien to me," the recluse says in his manner, "Everything that is human do I reckon alien." Your scholar of this unhappy sort loves and commends studies just in proportion as they lack practical power. Equally false and firm is his opinion that utilitarian studies like economics and engineering cannot furnish the mind with first rate general drill such as he himself has had. We have all met—elsewhere—intellectual gentlemen of this kind. Your man of action out in the world sometimes falls in with such, and when he does so he despises them. It is the occasional presence of those mere bookworms in and about learned institutions that makes some fairly sensible people wonder whether higher education is not the vanity of vanities.

Quite closely connected with that pedantry and monachism, in fact simply another phase of the same aberration, is a certain mental asthenia symptomed on the one hand by mental lethargy and dependence, on the other by stout dogmatism, the naive assumption of finality in the man's attainments however slender. He has lost—if he ever possessed them—all humility, all that inquisitiveness so vital to the spirit of science, and all notion of the wideness. I will not say of the total fact-world, but of its minutest or its most familiar part.

A phase, as unhealthy as in certain of its manifestations it is beautiful, of this mental dependence is well criticized by Sir James FitzJames Stephen in his essay entitled "Gamalleis." In that essay Sir James seems to have in mind Dr. Thomas Arnold, the foremost "Gamallel" of the British world in the days just before our own, at whose feet sat so long and with such obsequence that they never learned to stand erect, a considerable number of men who might have been original and even great.

I cannot agree with Sir James FitzJames Stephen in what appears to be his view that "Gamalleis" are a pure evil. An inspired teacher like Thomas Arnold, Ellphalet Nott, Francis Wayland, or Mark Hopkins creates vastly more mental life than he keeps down. The net influence of such a preceptor must be good. None the less his influence is dangerous. Wide is the gate and broad the way that leadeth to repeating and many be they that enter in thereby; for narrow is the gate and straitened the way that leadeth unto thinking, and few be they that find it. Woe betide the pupil who is forever referring to his favorite master with an ipse dixit. A really great master dislikes to be quoted. He prefers to be refuted. The great master's tone is, Do not cite authority, prove all things, hold fast what is true. Who is Paul and who is Apollon but ministers (that is, helpers) through whom ye believed! And who is Plato or Chrysippus, Aquinas or Abelard, Newton, Hume, or Kant, Wundt, Spencer or Lord Kelvin but helpers through whom we have with our own eyes seen our way into truth as far and as clearly as we could!

The Agricultural College.

I mention lastly a special criticism not infrequently heard in reference to those universities which like our own embrace colleges supported by the Morrill funds and by special state grants to supplement those funds. It is often hinted and sometimes said that the very important interests which the Morrill legislation was meant to further are ignored or subordinated by universities of this class, or at any rate not given the

attention or pushed with the zeal which their importance as the special wards of the nation and the state ought imperatively to command for them. Perhaps you have heard this complaint extended to innumerate misapplication of the funds named.

I do not believe that any universities using the Morrill funds have been guilty of misappropriating these funds and I am very confident that the university of Nebraska has not; but I am not so sure that the complaints referred to are in all cases quite groundless. The universities charged with the expenditures of the Morrill and Hatch funds are in duty bound not only to fulfill punctiliously the letter of the laws relating to those funds and in their bookkeeping to show to all the fact that they are doing this, but also to act fully up to the spirit of those laws, to put into the forms of instruction sustained by those moneys the very best teaching, equipment and administration at their command, as well as all the energy, zeal and enthusiasm with which they carry on any instruction whatever. Of course no line of our teaching can be allowed dominance, as no line can be subordinated, because all the teaching that is done among us is installed by authority of the state of Nebraska, and every part of it must be upheld and cherished to the best of the university's ability till remitted by order of the state. But if there were to be, as there cannot be, dominance in any line of our teaching, the parts which it would obviously be our duty to select for special favor would be those for the promotion of which we are under national as well as state mandamus.

Where Fault is Found.

Our review has evinced, has it not, first that the principal faults of universities are to be found not in the circle of their general influence out in and about their teaching office, and secondly that some of these defects which make university teaching are rather serious; warped doctrine given forth from some chairs, imperfect pedagogy nearly everywhere and all of us at ease in Zion regarding it, faulty structure of courses and faulty organization of departments, much laxity in election of students on the part of students, with some peevishness, alienation from life, dogmatism and Gamallel worship, though the very worst of these evils are comparatively superficial, skin diseases, not anemias or apoplexies, they call for examination, diagnosis and resolute treatment, medical or surgical or both. The happy fact, which I love to emphasize, that university functioning is in the main as it should be, must not deter university people from earnestly seeking to heal the blemishes and deficiencies in it. No human affair is so complete that it cannot be improved. The university system of America is the result of long growth and many factors. It will not alter easily or speedily. But it will alter, and being mainly in the hands of thoughtful men, it will alter for the better.

Ladies and Gentlemen: The circumstance that we of Nebraska university have membership in so ancient and honorable a system brings us at once dignity and responsibility. Each of us can do something to refine the metal already so nearly pure, to strengthen the fabric already so solid. Each can widen his view, improve his scholarship, rationalize his order of presenting his subject, and use new inspiration in addressing his classes. Good influence set going in so commanding an educational center will reach the Atlantic and the Pacific, yes, the ends of the educational earth. If we have not done our best we will begin; if we have, then let our very selves change, making our future best better than that of our past. So shall each one's masterwork hitherto be quickly surpassed, seeming like veritable failure matched against the splendor of that success which is to be!

The World of Music.

"The chief attraction at Vienna," writes Mr. Steiner in the Home Companion has been Professor Leschetitzky the teacher of Paderwiski and perhaps the best known of all teachers of piano. He is moody and impatient, but is a prince of good fellows to the pupil who shows talent and excessive industry. He has taught most of the great American pianists.

I visited Professor Leschetitzky at his summer house at Ischl, and during our conversation he made the following statements in regard to American music students which are well worth their attention:

"They ought not come to us unless they are musical and know music."

"Too many of them don't know how to touch the piano and I have neither the time nor the patience to teach the scales."

"A talented man or woman ought by all means to come over here if only to see how little he or she knows about music."

"Your young people lack depth and industry. They are very enthusiastic at first but most of them drop off when the hard work begins."

It is not often that an artist causes a deficit in a large orchestral society, but nevertheless such a case has just come to light. The Music Trade Review for September says: "The London Philharmonic society's season has been such a failure from a financial standpoint that an assessment of ten per cent has had to be levied on the guarantors. One reason is that the artists, were either paid nothing at all, or very little; they not being in the class of drawing cards. Rosenthal and Paderewski both played before immense audiences, but they received the full price."