all or part of.

Schermerhorn, Jr., a Trustee of Columbia College, New York, a gentleman greatly interested in the Arts, to suggest to his colleagues and Dr.

Barnard, the President of the College, that it might be desirable to establish a course of instruction in Architecture in conjunction with the School of Mines. After due consideration this suggestion was adopted and acted on and, to the great surprise of the party most personally concerned, an invitation to take charge of the new Department was in April 1881, extended to Proffessor Ware.

The invitation was flattering and the opportunity thus exposed was alluring; but Professor Ware was too loyal by nature, too devoted a Bostonian by conviction, too actively and interestedly engaged in the fostering of many promising undertakings in that city, ever to have thought seriously of accepting the offer, with its generous provision as to salary and its fore-shadowings of a wider usefulness, if it had not been for the consciousness of the internal friction to which allusion has been made, and the keen sense of malaise growing out of the Milton Scholarship affair. Even at that, it still is doubtful if he would have accepted the offer, as he did after his resignation had been accepted by President Rogers, May 11, '81, had it not been for one additional cause of discomfort.

It is beyond question that in the early years of its existence the financing and administering of the affairs of the Massachusetts Institute of Technology were very arduous and difficult matters, and doubtless

produced a certain effect on the nerves of the men who had the task in charge, which at times exhibited itself in the guise of a perhaps excusable "shortness" or pevishness of word and manner towards those subject to their jurisdiction. Not only did there have to be provided for and be met the first costs of installation common to all such undertakings; but, because of the rapid changes and advances at that time making in the varied field of industrial science and the opening of new fields of investigation, further large sums of money had to be secured for an ever increasing amount of new apparatus and supplies, and for the salaries of an ever growing body of instructors. Very soon, in fact early in 1873, because of the numerical increase of the student body, the span available in the original building proved inadequate, and it became needful to enlarge the original building or build a new one. Fortunately, the first of these alternatives was never seriously entertained. Everybody concerned and the citizens generally took too much pleasure in the two fine buildings on the Back Bay land, that of the Massachusetts Institute of Technology and thathef the Natural History Society, with their spacious surroundings, to be willing to endure the thought either of alteration or of crowding by new buildings.

Recourse, then, was once more had ato the State Legislature, and a new grant was made to the Institute, subject to use and occupation thereof by a suitable building on or before a fixed date, of the small triangular area lying in what is now Copley Square, just to the westward of Trinity Church. Copedy Square, as a civic and topographical possibility of great worth, had not begun to be understood, and the legislators were hardly competent to value the wrong that would be done to Trinity Church by crowding in a new building in front of it. Moreover Bostonians were quite used to see their churches fronting upon narrow streets. Having secured a site for the new Chemical Building, for such was to be its destination, the governing body congratulated themselves that in their own Architectural School could be found

being consulted, Professor Ware explained that as to studying and developing the problem to a successful solution so far as the "sketch" drawings were concerned, it would please him to give as much time and thought as was needful, and he would gladly consider this work as part of his professorial duties; but that the fame to prepare quater-scale drawings and specifications for the procurement of estimates of cost and later possible execution, the work was of such a nature that it could be carried on only in his own office, in conjunction and colaboration with his partner, Van Brunt, reminding them that it was a condition of his engagement that he should not be deprived of the opportunity of continuing the practice of his profession within reasonable limits, and that work so done would be chargeable against the situation under the ordinary rules regulating architectural practice.

On this understanding the building was studied in the sketch stages and brought to a satisfactory solution by the professor's charge of the Department, and then the work was transferred to Ware and Van Brunt, through whom estimates were finally secured from responsible builders; but these unfortunately were too high to be accepted. New drawings and specifications were prepared the revision causing the elimination of one story besides other alterations; and the second bids procured in June, 1874, came fairly within the range of the instruction's exchequer. But in the passage of time doubts had arisen as to whether the site and the building that could be thereon erected would be found really adequate to the needs, and then doubts gave rise to hesitations and delays, and the whole scheme was temporarily shelved, then finally abandoned, and at length the grant of the site lapsed to the State, because of non-fulfillment of the stated conditions. All this, while regrettable, was entirely normal to the ordinary experience of architects in practice. But, for one reason or another there was delay, discussion and

vexation following the presentation of the architects' bill for professional service, although this was drawn in entire conformity with the established rule governing charges for "abandoned work". Settlement of the claim was reached only after the severance of his relations with the Boston school, nearly ten years after the work charged for was first undertaken.

In the fall of 1881 he found himself established in New York, once more to attempt the establishment of a school of architecture almost, it may be said, single-handed, since there were no other instructors appointed exclusive ly to the new Department; once more to endeavor to graft the scion of a Fine Art upon the trunk of a School of Science. But the outlook was promising. the horizon seemed wider, the opportunities due to location and physical environment promised to be greater. Columbia College was a liberally endowed institution, its governing Board of Trustees and the faculties working under them were not new to their several tasks, and he was glad to feel that less of his time need be taken up with devising ways and means of overcoming the many difficulties of administration and daily procedure that must arise in setting in operation a new organization. The foundation-work was already laid and was good and sufficient and he had only to explain to his new coadjutors how and in what degree he would like to take partial advantage for his own students of the fully developed courses in Mathematics, Mechanics and Physics designed and arranged to meet the requirements of students of Engi-Susent M" neering.

How he prospered in his new field, how and why the Department grew and flourished under his administration could be made clear only by a detailed and tiresome rehearsal of the experiment made during twenty years of well considered effort. It is enough to say that, as a rule, each new experiment resulted in a distinct and beneficial advance, while the doubtful success and the failures were quickly detected and abandoned. The resulting

(while halting for a moment to draw his breath as it were between his old job and The new me he worte The follows)

[Liser "M" of p. 107] 108

9 West 35th Street.

New York, Oct. 11, 1881.

Dear Greenleaf,-

Tuesday 2 p. m.

Here I am, in my own place, the only place I have been able to call all my own for many a year, with all my things about me. I knew it was a nuisance, living in three different places, with the things I wanted always in the place where at the moment I didn't happen to be, and the absolute necessories of life going round and round in a blue bag, because I could never dare to be without them; but I now really realize how bad it was.

Now I have everything quietly reposing where it belongs, and what is better still I am quietly reposing where I belong, a much rarer phenomenon. It is curious, not having anything to do, or rather not having any particular occasion to do anything in particular, to have nobody in the world waiting for you, anywhere. I do not find that it do test makes me idle, rather the contrary. But I do not hurry, and I net, which is Goethe with a difference in my favor. If I don't feel like working any more, I lie down and take a nap, as I have just been doing, after two hours over my tomorrow's lecture. Think of spending two hours over one lecture, and that an old one! I begin to realize what a fraud I have been,—not but what I always knew it,— going about my work so unpreparedly. Now it really looks as if I might live a rational life, no longer the life of a slave.

I did not think any rooms could be as pleasant as yours, or that any New York house could be as suitable for lodgings as the house.

Boston kees. But this have, at least in this story, is perfectly quiet and simple, and though the look out of the windows does not commandany garden, it does cover a few patches of green grass, and most of the buildings, except directly opposite, are low. Simple arithmetic

teachers that I am only five doors from Fifth Avenue, and simple Geography that this street is on the south slope of Murray Hill, half-way up. I do not believe there is another such chance in the town. When you come you see shall be for yourself, and by that time I hope to get a little more furnished up. I am not homesick, but I look forward all the time to the exercise of those mild hospitalities, and I do feel a little astray. When I woke this morning I didn't know where I was, and it was very queer, finding out.

Light in here Saturday night and spent pretty much the whole of Sunday writing off for you this catalogue, which my plans for having it copied by other people had fallen through. After all, nobody could very well have done it, as I found after I had begun. I think that all the names that have the addresses given are your names. The other fellows are either lost to sight and not specially to be hunted for, or are abroad. I have managed to get the address of almost everybody I have tried after. Hooker will know who of last year's fellows have come back, and I have asked him to send you a list, which please use to correct this by, and then send to Hartwell, Alden or everett. I forget whether Everett or Alden was put in as Secretary. Please also furnish my present address Aldens too, so that papers may be sent me. There has in previous years been a certain looseness in regard to the Institute fellows which the new Secretary should bewere of.

I have written to Alden of this.

The moment of calm that preceded the starting of the train the other night sufficed to redeem the occasion from ignominy, which was well. It would have been a pity to spoil so perfect a lark. At any rate, so it seemed to me. I was heavy-hearted enough, and fond, to need a stirrup-cup, and I thought I knew a brew that would go just to the right spot. It made me very happy at the time, and it has made it feel better ever since. What you said in the morning, too, about the prospect cheered me up a good deal,

and restored me to a more reasonable view. I was very much obliged to you.

I am trying to persuade myself, too, that it is not age but simply want of vacation that prevents my feeling the elation that naturally accompanies new enterprises. A week of promenading, even such a week, is hardly enough to me tone. Then too the occasion is really serious and I am at least too old to encounter fate with levity, running for luck and trusting that if this fails, still the next venture may succeed better. I know very well that this is my chief occasion. And after all there is a sort of excitement about it, a serene and sober excitement, which is greatly contentment, and satisfaction, and may be the beginning of real happiness.

Moreover I have been thinking that though only ten or fifteen years, at most, remain for solid work, all that I have ever done, or regretted not doing, is eresping within the last fifteen or later ten years. It was all pupillage and babbling infancy until I went abroad in 1866, and of these fifteen years the past five, while abroad, and while starting the School, before the (Setang Curry and before Memorial Hall was begun, were preparatory, and the last five years, since the Hall was finished and I have dropped out of office-work, while at the same time the School has been stationary or retrograde, have been fruitless and useless. If the five years from 1874 to 1876 had been better spent, with more resources and more to profit by them, all the rest of my life might go for nothing. Now I think I am more excusible than I used to be, and now I have no lack of resources. These fifteen years to come may yet be made with living, or ten, or even five. This is what I am trying to bring myself to feel, and though still a little fogged and tired, I am getting rested, and am very quiet in my mind, and hopeful, even without elation.

"I'll let you know when I am ready for visitors. You don't know how welcome you will be."

Yours always,

W. R. Ware.

methods and purposes patiently developed during this twenty-year period are stated by himself in a paper published in the Columbia University

Quarterly in 1900, a date sufficiently late to be held to cover the entire period of his labors in New York, and this report here follows:-

Of this Report he wrote (To W.R.W. May 30, '00) "I have been writing a screed about the School for the University Quarterly in which I have finally contrasted our ways with the 'modes de Paris'. I was a little nervous about it and read it to Hornbostel, Hamlin, Partridge and Pope, to make sure of my facts and to make sure that the tone of the thing was what it should be. Pope objected -- I think without reason -- that it was too apologetic. 'It's a great deal better place than the 'Ecole', he said, 'Why not say so?' There are plenty of reasons for not saying so, and indeed for not thinking so, but I was pleased and surprised that, with all his satisfaction in his Paris opportunities and desire to go back and finish, he should cherish these sentiments. At his instance I added a paragraph about the value of the University atmosphere which he said was what he valued most. It is what we had had in mind, but I hardly supposed it was so noticeable as he had found it.

"He told me some significant things about the 'Ecole' des Beaux-Arts which I never knew, namely that most of the men in the ateliers go there merely to escape military service, not meaning to practice Architecture and few ever do. He added that there are few private practitioners in France, almost all the work and all the <u>public</u> work being in the hands of the Prix de Rome men, Of these men, he added that their four years in Rome was notoriously a mere loaf (Panem et Circenses) and circus."

A more detailed reference to the 'Ecole des Beaux-Arts, the <u>fons</u>

et <u>origo</u>, as he puts it, of the two Schools at Boston and New York, is made
in the letter of counsel and suggestion which, at the instance of Professor
Warren, the head of the School at Cambridge, he in 1909 addressed to Professor
Sabine, the Dean of the Lawrence Scientific School to it was attached. This
such
letter is of general interest that it is quoted at length.

December 7, 1909

My daer Mr. Sabine,

"I am minded, in thinking over what I was saying last time I saw you, to repeat it, perhaps a little more in detail.

"When the idea of establishing a Department of Architecture in the Scientific School at Cambridge was first broached, ten or a dozen years ago, it was not received with much favor by the architects in Boston. Not only those who had themselves studied at the Institute of Technology, but the older men, who for thirty years had watched those classes with satisfaction and had welcomed the students to their offices, were disposed to resent the creation of a rival School so near at hand and to question the wisdom of duplicating that work. With this position I entirely sympathised, and said to the men who confided to me their dissatisfaction, that an attempt to repeat at Cambridge what was doing in Boston ought not to be made. There were already a number of Schools in Illinois, Pennsylvania and New York very much of that type, and others would probably soon be established in different parts of the Country, a prophecy which has been largely fulfilled. These Schools, though somewhat differing from one another in organization, and exhibiting some differences which are due to differences in their immediate environment, are all of substantially the same grade, they follow substantially the same procedure, and the work they do is of substantially the same character. The students they receive are for the most part draughtsmen from offices or graduates from High Schools and Grammar Schools, and the instruction given them, though fairly meeting the requirements of the profession, is necessarily limited by the character of this previous education. But it has been so much in advance of anything previously attainable, that it has notably raised the character of the profession, improved the quality of the work it has done, and gone far to justify the claims of Architecture to rank along side of Civil and Mechanical Engineering, if not to count with the liberal professions of Law, Medicine and Divinity.

But the important position which Architecture holds in the history of civilization, side by side with Painting and Sculpture, make it desirable that in every country which pretends to a place in the front rank, the leading men of the profession should be of a different type from this, being men of superior education and learned in their calling. Every such country should have at least one School whose business it is to turn out such men. Such a school, like the schools of corresponding grade in Law, Medicine and Divinity, should receive only men of liberal education, for they alone are competent to pursue the higher class of studies. Moreover, it is only young men already trained in habits of intellectual achievement who can be expected to pass through the elementary studies rapidly enough to find time, within the brief duration of a professional course, for serious excursions into the higher fields.

It would seem, therefore, that if the School at Cambridge aimed only to do once again what was already so well done in a number of places, there would be no reason, and indeed no excuse, for its existence. But it seems equally clear that there is needed in this country a higher kind of study, and that a school which should undertake it would thereby occupy a position of primacy which could not be disputed. It seems, also, that there is no place in the country more suitable than Cambridge for such a new depart

parture. There is, indeed, no occasion for duplicating in Cambridge what is already so well done in Boston, but there is every reason for establishing a course of Architectural study, should circumstances permit, which shall be as different from that, as Harvard College is different from the Institution of Technology, and differ in the same ways. It would receive a different class of students and its graduates would be a different kind of Architect.

For this the circumstances seemed not unfavorable. Though the position of the School as a Department of the Lawrence Scientific School made it impracticable to give it this character at once, there was a fair prospect, that, in a period of transition, it might presently assume independence and finally be placed, like the other professional schools at Cambridge, upon a post-graduate footing. These anticipations have already in great part been met. This ideal has apparently been steadily kept in mind by the officers of the School and of the Scientific School, and by the University authorities, every opportunity having been seized for taking a step in this direction. It seems now as if one or two more steps, and those not very long ones, would place the School in a position which no other school in the country is capable of attaining, or indeed has any ambition to It seemed at one time as if this pre-eminence, in kind, might be at the command of the School in New York. But various influences within the School itself, and still more, controlling influence in its immediate environment, have apparently made this impossible.

Such a School might well out-rank in kind not only all the Schools in this country but, if it made the most of its opportunities, every Architectural School in the world. It would be able to do what no School anywhere has ever undertaken or been in a position to undertake. For it would be free to do whatever is, in the nature of things, really the best thing to be done. It would be free from the prejudices and traditions by which the

Schools in Europe are necessarily hampered. This is the characteristic advantage, of our position as a nation which, if made the most of, far out-weighs our necessary disadvantages. This is frankly recognized abroad. More than once it has been said to me, both in France and in England, "The future belongs to you. We are bound, hand and foot, but you are free to find out and do whatever is really the best thing to be done."

class material. It is, accordingly, a chief feature in the prospect thus developed, that a school offering the higher branches of professional study and promising to utilize and further develope the liberal studies they have already pursued, may reasonably be expected to bring to its doors students of exceptional quality. Graduates of Colleges find themselves singularly out of place among the school-boys and professional draughtsmen who now chiefly make up the classes in our Architectural Schools, and their time is wasted by the slow pace of their comrades. A post-graduate school could hardly fail to attract students from every college in the country. But to ensure this result the distinctive characteristics and attractions of such School would need to be conspicuously proclaimed.

"Such students can work so rapidly that much ground may be traversed, but the problem of a judicious curriculum would still require much consideration and could be finally solved only after much experience. This is a matter in which little aid can be derived from foreign experience. The only School to which one would look for an example is the 'Ecole des Beaux-Arts in Paris, and there all the conditions are utterly unlike those which obtain in this country.

The French Government has in charge pretty much all the public buildings in France, and maintains a numerous body of Government Architects to keep the old ones in repair and to build new ones. The object of the 'Ecole is to furnish every year one or two recruits to this force, and the

School is attended by a small number of men of exceptional ability, many of whom are men of good breeding and good education, who look forward to occupying these positions after spending four years in the French Academy at Rome in addition to eight or ten years, perhaps, in the Paris School. This long discipline makes them the most accomplished body of men in the world, and gives the School a name and fame of dazzling brilliancy. In addition to these, several hundred other students are admitted who consist in great part of young men who have no special vocation for Architecture, and who after leaving the School take to other employments, their main object in joining it being to shorten the required period of Military service. There are also among them, of course, some who exactly correspond to the students in our own schools, -- young men of serious purpose who are in training for the profession and their number is increased by a body of foreign students, about half of whom are Americans, who in point of character and education are generally somewhat superior to most of their companions. Since, like them, they have to pass a somewhat rigid examination in order to be received at all, they largely consist of students who have already passed several years in our Schools. They find themselves at once in a society which takes its tone from the somewhat mature and highly accomplished men who are at the head of it, men engaged upon problems of a highly advanced character, such as afford discipline suitable to candidates for public employment. When, after a somewhat prolonged probation, our men are permitted to share these tasks, they enter upon an exhilarating experience nowhere else to be found in the world. It is not strange that it stirs in them an enthusiastic loyalty, and the conviction that the methods of the 'Ecole are the only methods.

"But the only feature in this programme which has been, or can be, adapted to our own conditions is the practice of giving out from week to week or month to month problems in Architectural Design to be solved by each student as well as his knowledge and skill may permit. In this he has

117

such aid an counsel as he can obtain from his fellow-students and also from a private instructor of his own choice. Some of the best architects in Paris are glad to add to their resources by opening ateliers, as they are called, which are in fact private schools of Architectural Drawing and Design. Here their pupils spend their days doing the work which the School requires, and this when done is submitted to the judgment of a Jury. These instructors, who are called "Patrons," have no official connection with the 'Ecole, but hold somewhat the same position as the Tutors at Oxford and Cambridge, for the 'Ecole, like those Universities, is primarily an examining rather than a teaching body, the students being left to get information and guidance for themselves where best they can.

"But under this system, as Chauncey Wright many years ago pointed out in the case of the English Universities, the examiners inevitably give prominence to those subjects in which satisfactory examinations can be held and equitable marks confidently given. This, as he shows, has restricted and narrowed the range of University studies, subjects upon which there might reasonably be a difference of opinion between the students and the examiners being excluded, to the great detriment of English scholarship. In something the same way the prizes of the 'Ecole have come to be awarded mainly for excellence in draughtsmanship and for adherence to a conventional standard of design established by tradition, merits easily appraised. There has thus been developed what may be called a 'Beaux-Arts Style' somewhat distinct from the contemporary fashions in building and less controlled than they by considerations of construction and convenience, while considerations of expense are treated as though they were not.

"The special characteristics of Beaux-Arts draughtsmanship I have touched upon in the paper of which I enclose a copy.

"The natural result of these conditions has been to concentrate attention and interest rather upon drawing than upon building. The strenuousness of incessant competition not only between individual students, but still more

between rival ateliers, encourages the habit of spending all day and sometimes all night over the drawing-board, to the neglect of the buildings and of the offer building operations which Paris and its neighborhood for study. It seems to be taken for granted that if the drawing looks well the building will come out all right. But this is not so, as the unhappy aspect of the executed works constantly bears witness. Of course buildings must be made from drawings, and those drawings must be made with pencil and paper, on tables in offices, by men who have little real acquaintance with building-operations or building-materials. This being so, and unavoidably so, Schools should do everything possible to lessen the evil result, and to encourage the designer to use his imagination and to think in terms of real things. The worst thing about the methods which the 'Ecole des Beaux-Arts pursues, and its followers perpetuate, is that this evil is not recognized, and not being recognized, is not guarded against. The Architecture it teaches is largely an architecture of paper and pencil.

The custom of very much confining the Problems to public buildings, though serving, perhaps, the interests of the Government, still further narrows the range of study. This has unfortunately led to the adoption of a sort of cycle, a limited list of subjects coming round in irregular succession, and this has naturally led to the recognition of certain accepted schemes as the proper solution of these problems. What these schemes are, has come to be pretty well understood, and the student who ventures to substitute his own conception for the "plan-type" does so at his peril.

"A disadvantage which immediately follows an excessive devotion to draughtsmanship, that is to say to the "presentation" of a design rather than to the design itself, is the great amount of time it consumes, the larger Problems occupying two months each. But it is a slow pace that covers only five or six designs in a year, and some of the Americans in Paris, with a pardonable impatience, have sometimes thrown over the stated means of

119

prace and set up a special atelier under a Patron of their own. Here they have managed to go, in four or five months, all the problems assigned to all the classes in the School, carrying each only to the point where it was ready to be "rendered." This strike was naturally regarded as an intolerable insult to the establishment. But they enjoyed a fruitful season.

"It would seem then, that our own schools should proceed with caution even in the particular in which the Paris school most invites imitation. It is as serviceable for warning as for example, even in this matter of problems. It is clear, moreover, that admirably as it is adapted to the special service for which the French Government has established it, it falls short of being what we understand by a professional school. It does not educate, and does not aim to educate, men learned in their calling, such as it is the mature of a University to produce, though it turns out incomparable draughtsmen.

The rôle of Examiners rather than of Instructors, assumed by the officers of the 'Ecole, perfectly suits the work they have to do. It enables them to estimate the knowledge and skill that the different students have managed to attain up to that moment, and justly to award the mentions, medals and prizes at their disposal. But it would be a more profitable experience for the students if instead of being, suddenly and without warning, asked to produce a sketch for a theatre or palace, on the strength of the knowledge they may happen to possess, they were invited to a preparatory study of the requirements, and of buildings in which these requirements have been more or less successfully met. So, also, after the judgment, instead of being told that in the opinion of the Jury one design is, on the whole, better than the others, the competitors would find it more improving to be told why. As it is, most of them get only barren disappointment for their pains. Intelligent criticism would be some reward for their labors. The lack of this, however, is to some extent made up to them by the critical re-

marks of their fellow-students; and the public exhibition of all the designs, side by side, of itself suffices to signalize their merits and defects, and bring them home to their authors.

This being so, it would plainly be of great educational value if each student were then required to prepare a revised version of his design, correcting its faults and adding such excellences as the study of the other designs, and of his own in comparison with them, has suggested.

The award of medals and mentions for successful work, each of which counts for a certain number of "points", or "values", is a conspicuous feature in these competitions. It contributes to the excitement they occasion, and if often regarded as an essential element in the system. It is indeed, and indispensible means of determining the rank of the students and their claim to Government preferment. But men embarked in the serious study of a noble calling do not need these childish incentives, and the disposition shown in some of our schools to introduce them into this country seems to me to run counter to all our customs, and to degrade the profession.

"Such a School as you have in hand, must, in order to meet the needs of such students as it may expect, proceed on different and quite new lines, though the attemps made by the schools in this country during the last forty years to fashion courses of instruction suited to our condition and needs are full of valuable suggestions. They have given a chief place to Architectural Drawing and Design, following, in the main, the methods of the Paris school, and of them have endeavored to avoid its less desirable traditions. They have also sought to find place for the Sciences with which the practice of Architecture is most directly concerned, a problem of great difficulty, which I "yself contended with for many years without success, somewhat blindly feeling my way toward the solution which I see that your own school has now happily reached. This is not the only particular in which it seems already to be rather in advance of its neighbors. All the schools have also established courses in the History of Architecture and

paid more or less attention to Architectural Theory and Esthetics. Some have undertaken to read in class French and German text-books, but I do not know that any attempt has anywhere been made to extend Historical Studies into the field of Political Economy, so as to lay bare the relations between the course of Empire and the course of Trade, or between both these, and the enormous expenditures of money and labor which the great monuments of Architecture must everywhere have involved. At the present day also, when the relations of Capital and Labor are so difficult, it is proper that their bearing upon building-operations should be expounded. It would be well also if in the designing of buildings and the study of those already built the element of cost, which is in practice of vital consideration, should be habitually taken into account. Even a crude system of estimating by the cubic foot or square foot would answer the purpose. It would take up but little time and would suffice to keep this consideration constantly in mind.

"How to and what extent all these requirements can best be met is a question, of course, which only study and experience can answer. It is a new problem, and one which it is for this country to solve, especially since in this country our schools and colleges are teaching, not merely examining, bodies.

The chief demand, in Architecture as in Science, is for practical schools, but as there is a place also for, here and there, s School of Pure Science, so there is a place, here and there, for a higher grade of Architectural School. Both would seem to find a congenial atmosphere and their natural home in some University where the resources of Literature and Philosophy may be brought to the support of Science and Art.

"This is substantially what I meant to bring to your attention when we were discussing the subject. You will pardon we for having run on now at greater length and in more detail than that occasion permitted."

though of windely separated dates

Further light on the methods and success of the great French
School are contained in the following extracts the second one coming from
one of his early New York pupils who is now a teacher in the Architectural
Department of

[To Mr. F. A. Schermerhorn, Dec. 20, '86]

The record of the Americans who during the last twenty years have entered the School of Fine Arts at Paris is a very brilliant one. This I have had occasion to take note of, for I am proud to say, a large proportion of them have been my pupils. There is no lack of native capacity. No class of students has won greater respect, for the character of their work as well as for their personal character, than they, both from their fellowstudents and from their patrons. This is what I was told in Paris, and I could readily believe it, knowing the men. What they are doing, how that many of them are at home again, entering on their careers, confirms and justifies it. They are the lineal successors of Hunt, Richardson, Peabody and McKim, in whose hands, trained in the same School, American Architecture is now recognized abroad as having attained an independent life. Indeed one can easily understand that in that combination of good taste and good sense which is the essential quality of an architect an American should be as good a man as our Englishman or a Frenchman, while for freedom of mind he is more happily moulded in his circumstances and in his disposition than either.

Now it is the unanimous testimony of these boys, given not to me but to their juniors, coming to them for counsel, that for the a,b.c. of study our methods and appliances are a great deal better than anything they can find abroad. They always advise getting all the schooling we can give here before they go into an atelier. It is this verdict that has warranted and justified my repeating here, in the main, the methods I had set on foot in

Boston, and the circumstances being more favorable I have much bettered my own example! But they advise also, with general unanimity, seeking in the life of an atelier the more advanced and more purely artistic study which our schools do not as yet pretend to afford. I always urge this myself, with every insistance. But this is in many cases impracticable, for personal reasons, and is growing daily more so from the increasing difficulty of getting admission to the Ecole des Beaux-Arts. This being so, it is daily a reproach, for so I feel it, to myself and to the College, that we cannot offer the fully developed opportunities which some of my students are already competent to profit by, and which all of them will be needing by the time we turn them out of doors. When I anticipate for one or another of these young men a brilliant career in Paris, it is with something of chagrin that I remember that no such achievements are to be looked for here. We are not prepared to do justice to the situation. We are only half profiting by the unprecedented felicity of our opportunities and are only half furnishing the rich and varied banquet to which we have invited these hungry mouths.

This is the present case as I understand it, this is what this last year's experience has brought home to me. The first two years I was here there were too few students and those too exceptional in character --- being mostly students from other colleges entering here in advanced standing --- for me to judge how the situation would develope. For the next two years, I had mainly the common run of School of Mines student, to whose special needs my methods had to be slowly adapted. Now again, the position of the School being established and its name better known, I am getting in a class of older and maturer men. Meanwhile, the number has crept up to nearly fifty. There is no reason why, if we are really ready to give them what they want, they should not number a hundred. If we can, they will.

If we cannot, fifty is fifty is too many.

(From Lawrence Hill. Paris Dec. 10, '10)

"I have been doing more or less work at Duquesne's Atelier following the lines you suggested of studying a great many problems in the rough and spending little or no time on rendering. This is undoubtedly the best and most rapid way for an American with very little time at his disposal to profit by the 'Atelier System', of which I must say I don't think so very much. There is a terrible waste of time involved in it. There is an irresponsibility and apparent levity about it which may be admirable for the cultivation of the aesthetic sensibilities but which do not impress one as encouraging good business proclivities.

"It is true that the men who have been over here for years and who are the full-blown fruit of this tree of good and evil show a most wonderful mastery over logical planning and composition, and a facility in the decoration of their work which is nothing short of marvellous.

"But the question that rouses my curiosity and wonder is this: What becomes of this annual harvest of geniuses? I mean the Frenchmen. The offices over here must be overrun with talent; but I have seen no current Frenchmen architecture which is particularly admirable. In our land the pilgrims come back with acquired power and produce museums, and libraries, and town-halls, and residences, and churches, many of which are well designed and pleasing edifices; but here in Paris, the aesthetic heart of the universe, I see nothing but interesting monuments of ancient times and uninteresting miles of apartment-hotels.

"AmrI blind? All my life I have heard of the wonderful beauty of Paris, and behold, with the exception of the Place de la Concorde, Rue Royal, Tuileries and surrounding buildings, it is a desert of narrow streets and homeless thoroughfares. For historians and poets and archaeologists the

desert is full of oases of tremendous interest, and I can quite understand the charm that Paris has for them. For artists and sculptors the Louvre offers joys unending. For architects there is again the Louvre, Notre Dame and a thousand other bequests of by-gone times to study and enjoy. But Paris as a modern city, a place in which to live is a dersert, wet, cold and uncomfortable."

The first pupil to offer himself for enrollment in the new Department was Frank Dempster Sherman, later to become one of Professor Ware's most valued and congenial assistants, ranking next to Professor Hamlin, and at the time of his death, about a year after that of his former teacher, holding a full professorship in the University, occupying the chair of Graphics.

Between this pupil and his teacher them gradually developed a very close and unusual intimacy which had many of the characteristics of quasi paternal and filial mutual affection; in the attitude of one man to the other there was much that suggested that of the master and the "beloved disciple". Just before his death, Proffessor Sherman, who declared he had preserved every note or letter he had received from Professor Ware during twenty years, placed the whole correspondence in our hands and at our discretion. Upon this correspondence we have drawn somewhat largely, because it illustrates how intimately and continuously he interested himself in encouraging promising pupils to make the best of themselves and their opportunities, while at the same time it throws light on his aims, hopes and expectations in developing his ever progressing theories of Architectural education. Incidentally, too, this correspondence shows that the old art of letter-writing is not altogether a lost art, but is still patiently cultivated by here and there a few.

Sherman Back to School.

(F.D.S. Jan. 12, '82

"I cannot help hoping that you will find your way back to the School in October. That, if it is practicable, it is desirable, I think may be assumed and that without too much vaunting the entertainment, I myself have to offer. Reckoning all that at a minimum, it is still true that for those who can command them the opportunities of the School of Mines are greater than are to be had outside. If it were not so, the school would have no raisin d'être. In Architecture, as much as in any profession, a broadly established training is of service: Indeed it is the more serviceable as the ground covered is the more extensive. There is no calling in which the clearness of mind that comes from adequate preparation and comprehensiveness of views are more needed to encounter the practical and theoretical perplexities that beset it. There is nothing in which capable and devoted workers are more apt to go astray through narrowness of thought. There is no calling in which the personal ascendancy and superior position of the mem of education in it are more marked. There is no occupation in which personal culture is more serviceable within, and more quickly recognized and cordially welcomed outside. The relations of Architecture to Literature, History Science and other forms of Art are just coming into practical recognition. What the community wants is men who shall meet the best men in these related fields on an equal footing. It is just this that this school is undertaking to effect. If that kind of architect is to be around, I am enough your friend to want you to one of the set. Some men are formed by disposition and habit for the intellectual life, some are not. But you then all about what we are doing and) and I and many other excellent persons like to find our account in doing so. For you to give yourself merely a practical training is preposterous, if any alternative is open. You would have stayed in the School, if you seen

your way to do so, of course. It is equally a matter of course for you to go back if you can..

is an illusion, the common illusion in regard to practical work. In an office, one gets along famously for a while and then comes to a standstill.

The soil is not an deep enough. In any intellectual calling it is the educated men who take the highest seats. In any calling it is the educated men who do the best kind of work. As to your being permanently contented with an inferior kind of training, you are not that kind of a man.

not suppose the way for your was really open .----

"There is one aspect of the question that, though purely practical and businesslike--- rather, let me say, because it is a purely prudential consideration, ought not to be left out of view. You may have already observed, even in times of prosperity, how uncertain and capricious the prosperity of an architect is likely to be. He shares the disadvantages as well as the advantages of a calling which is helf artistic. He is subject to caprices of tasts and fashion. He is at the mercy of patronage, which will be the making of one man and the ruin of another, without too strict regard for their relative merits or capacities. When the lean years come, architects are the pricarious first to suffer. Altogether it is a pretty precalling, laborious and anxious. From this point of view, that is the safest training that offers in the long run the greatest variety of resources for earning an honest livelihood."

have so seldom met anybody who was thought to have too much, and I am so clear in my own mind that the intellectual life is the only one worth living for an animal that has a head on his shoulders, and am so constantly impressed, and more and more the more I see, with the almost insuperable difficulty of pursuing this career, of fairly entering this path in the absence of that early training which is the natural introduction to it, that I cannot bear to see a young fellow whose natural bent lies that way thwarted in his natural career by untoward circumstances. No more can other people, and it is for this reason that colleges are endowed and free places set up, so that the salt of the earth, in an intellectual sense, may not be trodden underfoot of men."

130 Sherhan's chance.

(F.D.S. May '86)

"If I had the money, I would give you a permanent post near this Court, to do for the Department the things I want to do and have no time for. This would give you a reognized position and put you in the line of academic promotion. Then you could do what you pleased of reading, writing arithmetic (including the branches of mathematics) and all the humanities.

"This seems like a dream, but if I am right, it is quite as much like one of your old dreams as like my newest one, which it is. I remember your saying, four years ago, that you would like nothing better than a permanent place here in the College, or elsewhere in some other. The word you let drop yesterday about an Instructorship in mathematics recalled this to me, and this seemed to give it a significance and importance which perhaps were not in your thought. But I have reverted to it as the best practicable solution of your problem, or as leading to it. But I have no business to be making plans for you. These be the snares and pitfalls of the Protective System. All I mean to say is, be of good courage, Keep your heart up, and have faith that the best is always attainable one way if not by another. As to your career in this life, I think that any definite programme can be carried out, and whatever is really best for yourself, whatever, that is to say, will make the most of you, is, as always, the ultimate aim of endeavor."

Our walks and talks made me very happy and I am enjoying a great content and an eager hope. I have never, as I tried to explain to you, been in a position even to undertake to do my work as well as it ought to be done, or even as well as I thought I could do it, and had almost abandoned the thought of ever getting upon a different footing in regard to it. At the same time the way things were going has given me, especially for the last year a growing dissatisfaction. But how to do more or better, when already I was giving all my time, and more, to the momentary claims of the day, finding no or unity, or even for the necessary ciphering, all of which were needed for serious work. The hope that you might some day come to my relief, which had flashed across my mind when first you spoke of your living for an academic life, so long ago in 35th St. , was a dream I had never ventured to indulge. That now my dream should come true, and that you should come back to the school not as to a harbor of refuge, in your distress, but as to a desired haven, is more than , up to the last moment, I had dared to hope. "Intellectual sympathy"is a large word, a bigger one than I meant to employ But I think it is true that you understand very well what I am driving at, and can take up and carry forward many things which I have always thought never could be done because nobody but myself could do them, and I had not the time to give. The possibilities that this opens multiply as I dwell upon them, and seem to offer a new and more defensible life to me, and to you to open lines of work and of study which, if wisely chosen, will exercise and discipline your best powers, open before you an enviable career, and qualify you admirably to fill it. The place that I occupy is, for a person who likes that sort of thing, are of the best anywhere to be found, and though now almost unique, other such will presently arise. When that tide rises the man who is ready to take it at the flood will be the fortunate one.

with has several times happened to me that I have suggested to young men for whom I have had a certain regard to do this or to do that, and behold, suddenly, life seemed to close in around them and they were fixed for good upon the spot to which I had beckoned them. I do not know that I have had oecasion, or they, to regret the result, but the irrevocableness of these light decisions has greatly impressed itself upon me, and I hesitate to raise a finger, even to point out the ways of wisdon. I have felt, as I said when first I ventured to make these suggestions to you, that it was very serious business, and have shrunk from it, the more that I desired it so much. But now, I feel no misgivings, it seems to me nott only the best thing open to you, but a good thing, absolutely. And Mr. White and Mr. Norton, who are your friends as well as mine, think so too.

"So you may consider, if you will, that you are not only earning furthering, as best you may, the furnishing of your mind, but that you are putting yourself in training for an independent career bye and bye. For this you have all natural advantages, and experience and study and travel will do the rest."

[P. F.D.S. Du. 28.1887

Then I have been reading Mr. life. It is a curious contrast to Mr. Emerson's, and nothing could be more than their objects and the immediate aims with which they pursued them. But I was mainly struck with their points of likeness, in their modes of life and daily work and most of all in their real selves, their personal character. The moral nature was the same, and in both cases it gave to their intellectual performances their districtive characteristic. Both books make, rightly or wrongly, the same impression, that the intellectual machinery was not very exceptional, but that it was enabled to accomplish very exceptional results by being set at work upon fresh lines of inquiry, congenial to its own disposition. Now the quality of mind that makes this possible, the openness of mind and modes and confidence, the candor and courage, are all moral qualities, as much as are the generosity and selfeffacement which adorned, and which after all are only other aspects of the simple truthfulness that is the substance of the whole. This is indeed Mr. Emerson's own doctrine. Every man is a genius, if he will only be himself. Originality is the natural estate. It is constraint, and embarrassment, and distrust of one's self that lead to imitation and artificiality, and secondhand and second-rate performance.

"If this is so, then it is literally true that the lives of these great men teach us how to make our own lives sublime, and the lives of those that are entrusted to us. For the mental quality and capacity is mainly innate and schooling and training can only give it field for exercise and growth in its own way. But morals in manners, behavior, method, and the spirit that shapes them. All this is at command, for one's self entirely, and largely for others. Freedom of mind, independent inquiry, originality, are just the things that can be learned, and, if so, can be taught.

"It seems queer to say that originality can be inculcated. But boys encouraged to be themselves, and the pest follows. All this gives added force to the familiar maxims that the real object of schooling is not to acquire information but to get command of the faculties, the object of study to learn how to study. This, as I am more and more inclined to think, means practically this, that the thing to explain and enforce is a good methold of work, trusting that it will bring knowledge and power in its train, and, if it fails to do this any other method would have failed more signally. Meantime the method itself is the chief of possessions.

"By a good method can here mean only a method that gives confidence for difficult encounters by accustoming the fellows, in easy things, to the attitude of intellectual independence. I do not much care for, and I do not very much understand, a good deal that is said about training the powers of observation, the discipline of the eye. The only discipline I knew anything about is the discipline of the mind, the practice of definite interlectual operations until they became familiar and obvious. Knowledge is a knowledge of things and of their relation." Things can be shown and their relations described so that one will not entirely forget and will recognize them if again presented, may perhaps to able to reproduce them from memory. But to discover the relations of things one's self, by analyzing a complicated case, to identify the elements, and to reconstitute them into a new whole in changed relations, this gives not only knowledge but power, and what is more important the sense of power that gives courage and intellectual freedom (Incidentally it brings about complete acquaintance with the phenomena, with the things themselves, and so I suppose improves observations.)

"If this is so, I think we probably make a mistake in explaining things too much, even the easy things. Certain things are so simple that a boy needs sheden; to be told them only once, and they are obvious, -- like the rule for the

point. By and-by, when things become a little difficult and interesting we propound a problem, something for them to discover for themselves. But by that time they are in the habit of being told things and have formed a habit of understanding expositions, but of investigating relations, and though the bright fellows make a success of it, that doesn't count. It is the dull fellows by whom a stimulating method is needed. I think they should have it tried on at the very beginning, so as to get used to the situation.

This is simply saying over again what I have so often said before, in talking to myself, and perhaps to you, that one should teach by problems, not by theorems, giving out questions, even the simplest, and denying even the simplest information, which, being so simple, the student may reasonably be asked to discover and formulate for himself. This is the principle of Mr. Spencer's Inventional Geometry . I remember when I was at school how I hated the theorems and liked the problems. I think that that is the intelligent frame of mind, and one that ought to be encouraged. I was reminded of this last night when I undertook to study a little Graphical Statics. I found the task of reading over the explanation in the book perfectly intollerable. The only thing was to find out what the man was trying to do and try to do it myself. That failing, I read enough to detect the principle he was applying and then worked it out my own way, -- which of course seemed to me much superior in method and statement to the one in the book! It was, for me. It my turn of mind and was more in harmony with my habits of thought. At any rate, it had given me a little bit of original work, albeit in leading-strings; and the excitement and glow of working the thing out and putting it into shape.

"I fancied some of your Second Class trying to study the same page.

It was plain to me that they would either get completely flooded, or just commit the thing to memory. Perhaps a few of them would have mastered, by a

detailed claim of reasoning in the book. But this would have more reasoning if they first tried to work the thing out by themselves even if they failed, and the habit of doing this, if possible, as the only really satisfactory way, is what I want to establish. Finding it impossible, as I did, they would appreciate the more highly, as I did, the ingenuity of the author. But at this point it would be possible to point out the principle of the solution, and with this hint give the fellow another trial.

This same experience confirmed me in my views of the value of having things done, graphically, even when the principle is so obvious that the nature of the result is easily anticipated, in theory. It is annoying derives how much force a theory denies from concrete examples, especially examples of one's own contriving. It is easily enough accepted, for instance, that, in the polygon-of-forces, the resultant will be the same in whatever order the sides of the polygon succeed one another. All the same, the verification by putting them in several different sequences is always a pleasing surprise. It is this sort of exercise that I think so improving. It verifies theory by experiment, turns an anticipation and matter of imagination into fact, and by thus bringing new matter within actual experience puts it behind one and underfoot, as it were, where it is a firm basis for the next step. Things thus digested are assimilated, and become matters-of-course, which is what one wants them to be.

All this I have often recognized clearly enough before, but this book about Mr. Darwing has brought it up afresh, as needs constantly to be done, it is so much easier to tell the fellows things than to lead them, and leave them, to find them out. Of course they will not all succeed. Then those that do not can sit at the feet of those that do, and thus learn to do things for themselves next time. I do believe that the attitude of mind is

the main thing in original work. When a man comes to strike that pesture he begins to live. Now in the intellectual gymnasium this jump can be taught, and a class of boys be termed -- as by a somersault -- into a class of men.

"But while this teaching as the impressed me anew with these familiar notions -- you see I read a book so seldom that when I do it takes hold of meand made me see that in both your work and in mine it is more important how the fellows do their work than how we do ours, in point of form, it has at the same time made me think very seriously of that other question, both for you and for me. Working two or three hours a day, which was all his health would permit, Mr. Darwing in forty years not only, having assumed an independent attitude of mind, did some notable thinking, in new and difficult realms, but accomplished an enormous amount of work, reading, writing and experimenting . You have got some forty years before you, mine are more than half gone, much more. But it is not too late for me and it is not too early for you to take a leaf out of his book and continue, by arranging for a defensible mode of life, bay, by day, to save the waste that comes from misdirected labor and thus to achieve maximum of result with the minimum of toil. For my own part it is hard to break the habits formed when I had no choice but to let one make - shift succeed another, and hurry as best I might though a dozen subjects a week. It was impossible to make fit preparation, much more, to keep fit records. The consequence is that for my twenty years' work I have nothing to show but a wretched rubbish-heap of worthless memoranda, and many hours of good work have left no record, even in my memory. Since I have had my time at my command I have had much self-reproach at allowing this condition of things to continue, always meaning, when the present fuss was over, to trying to read and write and study, as the plain duties of my position required. Instead, as you know, I spend all my time in doing things, what I call working. Now what has brought me up with a round turn is being shown how much

two or three hours a day, only, of real work, may accomplish, well bestowed.

"It has not needed this warning, or external example, to deter you from a like mistake. It has been the greatest satisfaction to me to think that your work in the School would not crowd you, and that you would have sufficient time to do it up in perfectly good shape as it went along, making ample preparation, and then stacking it away in good form for next time, and having the opportunity I didn't doubt you would have the sense to use it. All that is well just as it should be, and a sound beginning for your forty years. Happily they are not all of them our present business, and we may trust that if the next three or four are well and wisely spent the rest will follow wisely and well. What this present work may lead to, in the School or elsewhere, no one can tell. It is an adventure. But though the issue, ten years hence, is uncertain, I do not think your risk greater than it would be in older and better worn paths. Only, the path being new, and nobody knowing what may lie beyond the next turn, it is occasion for vigilance, and manifold preparations.

"These indeed, as I think I was saying before, are manifestly in order on your own account, and it is sur additional and further satisfaction to believe that our arrangements will leave you time, as mine ought to leave me, for reading and writing and study, besides what your School work suggests.

"Here there is a suggestion which perhaps I have not made, though it has been so much in my mind that I may have dropped it, sometime, by the way.

So long as you are in the School it is proper to proceed to as if you were to remain there, as indeed there is every reason that you should, unless, or until, some preferable alternative offers. So long as you are there, then, it is proper to go on as if you were there, and were in the line of promotion.

It is from this point of view that I was proposing the other day that you should join hands with me in that text-book, and that your share in it should be as large,

and be made as conspicuous, as might be. Another thing, and it is this to which I was coming, is that you should also share with me, or relieve me of, one at a time, my various topics of instruction, working them also, one by one, into proper shape, as you are doing the <u>Slements</u>, and thereby carrying forward and completing your own courses of reading and study. If it is true that our curricular, when it is complete will be a truly liberal course of education, and if it is true that the way to learn things well is to teach them, then by the time you have been the rounds, and have taught and, with ample time, learned to teach, the various topics embraced in the course,— even as it is now,— you may well feel that you too have had a really liberal training, albeit at your own hands, and have compassed at last, in a way of your own, the round of scholarly attainments and accomplishments that have so often seemed within your grasp.

"The drawing, the mathematics, the elements, you have already well in hand. Any one of these I am ready to take in exchange for any one of my own things, as soon as you are ready. Meanwhile, that you may make the most of the passing hour, for yourself and for the boys, do not neglect your own drawing. I think it would be a good plan, as I think we were agreeing the other day, if you would do as Hamlin did the other day with the little Museum, and make, yourself, every drawing you require of the class.

Perhaps the best next thing is one of the History classes, for I have heard you lament that you knew no history. In your evenings you could do much, and o you would find happily that much history can be read aloud. (Do you know that this is the most domestic exercise in the world, and, to my mind, the most conducive to domestic happiness.) I do not mean only architectural history, but all the illustrative writers, making notes and citations to serve for illustration. Besides, the fellows need to be referred to fer a thors, and refer them with confidence to books we do not know.

"There is no hurry. The thing can be done as thoroughly, as you please, ---

if you please at all. And meantime, you can accumulate notes for diagrams and hints for many things. The Ancient History is perhaps the most accessible, and as this comes along every year, it would be ready for you any day. But I do tolerably well myself, and it is the modern History that most needs working up. This would lead you into France and Italy and refresh your French and Italian.

"But another thing that needs doing is Philosophy, and this I am quite sure I have spoken of. To read up, for instance, the Philosophy of Art, beginning with the Theory of Vision and putting your hand writers, chapter and verse, who have discussed perceptive, and form, and aesthetics, not to speak of the metaphysics of mathematics and mechanics,— which is intensely engaging— would furnish you a writer's study and give our boys a wholesome taste of the things of the mind."

Sunday, Florence, 1890.

Meantime I have been reading, and more than once, Mr. Gilder's Phi Beta Kappa poem, greatly to my satisfaction. Save one or two points of obscurity which I should think might have been bad for it as a spoken piece, it is as good as can be, and it has the merita of utering the note of the time or of the time presently to come, which is better. All the panoply of religions, ancient and modern, among which I have been wandering for the last six months, seem to me just a monument of the poetical genius of the human race. Truth, scientific truth, the truth of things, as we now understand it, it is all sufficiently remote from. But fancy and imagination, stimulated by fear and wonder, have from monumental old time till now conjured up and handed along a momental mass of withs and miracles, pagan and Christian, until later ages have enshrined and perpetuated them in mon-What strikes me most is that it is all one, the story and its treatment, with alike products of the poetic artistic spirit, imagination furnishing first the substance and then the form. (But it is better to say, perhaps, that there are two imaginations, first the creative or inventive and then the moulding and perfecting, whose function is, as Mr. Austin said, to see in everything the perfection, the thing itself suggests .) All the religions (as well as ancient, seem to me, more and more, to be mainly poetry, and their expression in art to be of a piece with their origin and nature, and this is finely put off in the poem.

"To all this the spirit of truth, the scienticic spirit, is as fatal as it is to the other element of the historical religions, -- Magic, founded on the notion hierarchy, that the universe is at the mercy of a certain spiritual hierarchy, whether gods, witches, demons, saints or goblins, and that certain times or places or things are sacred or accursed, as the case may be, lucky or unlucky. In this point of view the new world seems to be the home of freedom chiefly in this, that we have no saints and no holy places. In this alone is a whole Declaration of Inde-

understand how bright and clear it looks, seen from Egypt, Turker, Greece,

and Italy, in with paganism and and the Eastern and

Western Churches. This incubus of the superstitious habit of mind, Protestantism largely threw off and are not sure that this freedom is not its distinquished and characteristic note. Yet in point of doctrines, certainly
the Protestant made but a halting progress towards common sence and and
open mind. Even when they recognized the principle of using their reason
and of the right of private judgment, which is its cofollary, circumstances
were too much for them, over here.

have mentioned and in the point I have mentioned before, that the political situation makes the Eastern-despot theory of the Government of the world seem absurate with is rewards and punishments, and rworship and glory and praise, and pomps and ceremonies—so novel that one wonders how long it will be before the old scales will suddenly fall from peoples eyes. Truth is one, and intellectual consistency the jewel of price. There must arise presently a prophet who will preach a religious truth that is not inconsistent with recognized facts. Then we may hope to find Sunday more powerful on week-days, and weeks-days more in accord with Sunday. Farewell.

Florence

Tuesday.

P.P.S.

line still by way of obligate to Mr. Gilder's lyre. He and Mathew Arnold seem certainly right about the Jews. The phenomena of Mature and the mystery of Death seem with everybody else to have given shape to peoples notions of the powers that be. The Jews (and Persians perhaps) were impressed most with the Mismostive of Mohammedanism and Christian worship alongside of all the incantations.

There is of course an immense amount of natural goodness in the world, and always has been, but the Heathen Religions don't seem to have taken any interest in it as these do. The people in the churches here who drop into the churches as they go by, may merely be scheming to save their souls from by mechanical performances. But it does not looks so. They seem to be trying to be good, and trying to get some help therein.

"As to Gilder's final strain, it is refreshing to hear a little common sense on the subject. The forces that have made the world what it is are just as active as ever to make it what it will be. As to Art its history is a succession of failures. Half the Statutes in the Museum; half the pictures in the churches the of criticism by which modern work is condemned. It is and always has been the nature of things to have ten weeds to one flower. The only practical rule is to plant and water and not kill the crop by undue haste, as the Scriptures says, in rooting out the tares."

[107.D.S. - any 13, 1891]

I was just in time yesterday and the day before, for the last two days of the School of Ethnical Ethics. Six lectures in twenty five hours, give me a feeling sensepf what our fellows have to endure. We come to them somewhat fresh and hardly believe how jaded and forced is their attention. This enforces the doctrine of few studies at one time, concentrated attention and continuous interest, which has several times of late been urged upon us. But these Plymouth lectures, and one or two books I have been reading, have also enforced the need our men have of a wider and more liberal culture. A school cannot evade its responsibility for the four best years of a man's life, by calling itself technical or professional and preceeding to ignore the humanities. Society can get along with poor architecters and poor engineers, but not without good citizens. That consideration is paramount and not to be blinked. In this age the humanities mean something besides literature. (I find I am not quite sure what literature does mean, though. It seems to be rather a method than an end, in education.) Everybody seems to agree that questions of extraordinary difficulty a practical answer, and as the answer must be the one which is will presently be ithe obvious one at the time, the only safety will fie in a same public opinion. These questions are as to what ought to be arrived at and what it is practicalble to expect, questions of social Ethics and practical Economy Taking the place gase of the old questions of Religion and Politics, through many of these still front ranks challenge discussion. Now, to turn out a hundred men a year into the first weeks of society perfectly green on all these matters, is not what a public institution should do. Either they will neglect them altogether, and fail to fulfill their part, leaving the work to less competent hands, or they will enter into it unprecontribution pared and fail to make the constitution of good sense and judgment that educated men ought.

"I think it would be possible to open up these subjects so as to create an intelligent interest and to make all the current literature intellegible and instructive, instead of being a scaled book, -- a book that would doubtless be interesting and improving of one knew enough to read it. It is the object of a liberal education to reduce their number, to bring all fields of thought within range, and I am sure it should be our object to make our work as liberal in character as possible.

The possibilities are limited chiefly by limitations of time, and perturbing that brings up again the spirit of Mathematics. I do not want to be obstinate in returning to the field of defeat, But I cannot help thinking that, for our purpose, the present arrangements are indefensible. What they get, reliable as it is, costs more than our men can afford. The time given to Mathematics not only custs them off from some important studies altogether, but, which is less obvious, leaves them no time to pursue the work they do take, in an intelligent and scholarly manner. They have no time to read, write or think. Independent observation and discovery, which in the beginnings of all subjects is easily organized, they get no experience of. The College, instead of replacing the dead-and-alive methods of the schoolroom by manlier exercises, is forced, for the lack of time, to continue them, as we have so often deplored, and the situation does not ameliorate with the development of our own work. Rather the contracts; we are only the more crowded.

and reduce our Engineering programme for the of the students, with liberty of range in those fields for those so inclined, or try once more and on a more comprehensive scale, our experiment of the or four years ago. The former alternative would amount to setting up an elective system, with Mechanics I (Descriptive) and Mechanics II (Mathematical). Considering the internal composition of work of the men who naturally take to Architecture, I am not sure that the objective and practical aspect of construction is not the best for them. Neither am I sure that this view is not far more germane to Architecture.

abstract relations that the architect needs to have familiar. Above all a man needs to have unity in his intellectual life. All our efforts go to establish relations between the different studies. Between Algebra and Mistorical forms this is impossible, but not between Historical prescription and building requirements. This consideration is so fundemental that if it is really viewed, one would abandon scientific engineering, for most of our men, with gladness.

But the other alternative may still, in spite of defeat, be a possibility, and I am still disposed towards it, not entirely because it still contemplates all our present results, but because the course of study would be of value in itself for discipline and enlargement of mind. I cannot help fancying, though it may be no more than a fancy, that a narrow but not by any means a shallow channel might be dug that would lead our men straight through Algebra, Trigonometry, Analytics, Calculus, Mechanics and Engineering to the few practical problems of Statics and Dynamics that architectural operations involve, excluding all wide issues, dismissing them with an 'et cetera' reading then as it were "by Tittle" The little that such a course would inabundantly familiar, that it would enter clude, could, I imagine, be made so abso into the general mental furniture far more efficiently than often happens with the present range of studies in this kind. To most of our men these ideas of their habitual contemplations, and degenerate with But this may be a fancy. Your judgment is better, I dare say, than mine.

As to social science, I fancy that if this element could once obtain recognition, it would add interest to all our historical work, and that this could in time be made to illustrate at every turn its main precepts. If this proved possible it would, for once, if the definition of History as Sphilosophy

· VI 147

teaching by example."

#4

"I amused myself yesterday by trying to take notes of some of the lectures, applying the method I have been accustomed to recommend, but of which I have really had but little experience. I have not had a chance to look them over, and shrink from that labor. How disagreeable it is to do the things which we expect our fellows to do as a matter of course. Also I found listless it very fatiguing, and after the first hour held a pencil. Still, in the thirdhour it revived, under provocation.

"Whatever at any time may prove best in regard to all these things,

I am minded forthwith to make a push, all along the line, for the appreciation of the principle of which we were speaking a fortnight ago. I am

tree

sure that half the tings we will the men and that they receive as so much puere

fact, more or less interesting and valuable, they could easily be made to observe

and record for themselves. Then they would understand and appreciate the

facts in their vital relations, and besides, get a notion of independent

ways that would be revolutionary. At present they are told everything

and never asked to think until they come to something difficult. We formu
late things for them, so that they may find it easy to remember them. But

they lose the profit of working the formulas, which, as we discover, is the

most instructive thing in the world. Then we wonder that they don't find them

as interesting and significant as we do.

This would involve a certain reorganization of our own material, and would exact of the men time for thinking, a tedious operation. But it would be worth the time it cost. It might be best, as I was suggesting to prepare the data and propound the question, indicating the method of solution. The men who get through would gain, every way. The men who didn't would be no worse off than otherwise, and could be told. This would establish a discrimination of discipline between the capables and incapables and thus meet

For also MIX 202

a felt want.

Meanwhile I send you Goodwin's address, which you will read with interest.

It sheds a sort of side light on these discussions. He seems to think that the notion of a liberal education, like the notion of the Centleman is a special product of English and American civilization, not found on the Continent. This is important, if true. The chief practical result of reading it was to make we hope that John may see his way to Cambridge a year hence.

Ha will be ripe by that time for that society.

Yours always, and when I send my love it includes all your little family,

W.R. Hare.

After ten years of experimenting, during which I had stood ready, like any pioneer, to put a hand at any thing that needed doing, being responsible for everything, the School has now reached permanent constitution, not likely to change for half a dozen years. What I want to do myself must be done during that time. The rest of you, too, are now for the first time in a fixed and definite position, not likely to change for five or six years. We have toiled up the hill and now have a level upland to traverse. Then more hills, or a descent into the valley. These five or six years are to determine the character and quality of the enterprise, so far as I and my methods and my men are to shape it. So far the main effort has been to make it the right kind of thing, and I think it is the right kind of thing. It has prospered on the lines laid down and I have not changed my mind as to what those should be. What now need to be done is to make it good of its kind, to improve the performance, to raise the tone, both artistic and intellectual. This is one respect easier in that the quality of the students is improving. But that is only to reveal our shortcomings unless the quality of the instruction improves too, and the quality of the instructors. That means study. We are all of us in danger of sacrificing the permanent interests of the work to me fidelity and momentary efficiency. It would be better for all of us to teach less and study more, to be less in the School and work more at home.

equipped for the work, with a certain professional training and experience, it is of course still more the case with yourself, whose studies of all sorts have been pretty much interrupted for the last six years, and also for ten years have also used your wits more to give out than to take in, more for production than for discipline and acquisition. Kind Fortune, by a stroke of her wand, has rescured you from this, setting you, before it is too late, where you can make up these losses, if you can so far resume the student's attitude as to do so. I think I have at one time and another spoken of one or another of my friends who finding themselves a little belated

in life's journey have been unwilling to do this, have been unwilling to take up at thirty the discipline they had missed at twenty, fancied that maturity of judgment would enable them to dispense with the lessons of experience and that knowing about things would answer in place of knowing the things themselves. At forty they were stranded. 't is then too late to begin. But at thirty it is not, and it is because I found in you a same and honest mind ready to work parts in the face and meet their requirements, that I have contemplated without misgivings your entrance upon a career for which your special preparation is so inadequate. Think, on the other hand, where you would be if you could have finished your three years at Cambridge, and then, before coming to us, how, with a view to doing so, been abroad for a couple of years, or three, taking the discipline of the school and the instruction of travel. Mobody was seen better fitted to profit by it, and, returning, to hand it all over to us. It was not to be, and your artistic capacities, for which your apt draughtmanship offered an easy development, has lain in a napkin along with the chief part of your literary and intellectual capacities. There is still the promise, a hope deferred, and if it is to be fulfilled it is in this next five or six years that the work must be done. The bias is of couse naturally the other way, and just as at school the fellows with a special gift are disposed to make a success in doing the things they can rather than practice doing what they need to learn, so, all the more, after a certain amount of unsuccessful endeavor in actual work one hates to begin any new thing and to encounter the rebuffs of pupilage. Yet, really, there is nothing more delightful than to be a school-boy again, with no responsibility but to do as one is told. I said that Hamlin and I had a fair equipment for our tasks, but that is true only of him. When they asked me to go to the Institute, being 34, with nothing behind me but six months in Richard HUNT's studio by way of school experience, I felt this so keenly that when I got to Paris emitted greatly whether I ought not to go into an Atelier for six months and

be chastised, instead of going the grand tour and posing for a swell. I went every day for a couple of months to learn rendering, and was just beginning to see a probability of becoming a good draughtsman when the time was up. It would have been better since, and I should have been much happier and more useful, if I had sat down to six months of it. I was happy enough at the time. I should like, now, to begin taking lessons of some sort, going into training, coming under discipline, and being set to do what I can do least well, instead of always following, as in active work one needs must, the line of least resistance, as being the line of most efficiency, and doing what I can do best."

(F.B.S)

"I have always had the notion, though I have been neglectful in applying it, that not only in general are problems more interesting than theorems, and more stimulating to the mind, but that, especially in our own work, it is the active and not the receptive powers that should be cultivated, the faculties involved in invention, this being the Architect's special function. But as there is nothing absolutely new, this means arrangement and combination, and this implies something more elementary, and already familiar, to be arranged and combined, That this invention can be taught, and may properly make a part of disciplinary work I am the more ready to believe, from inclining to the opinion that what is called originality is not a special gift but a method of procedure, a particular way of approaching things and handling them, a habit of mind, which can be taken up and practised just as well as any other intellectual method. Everybody is, as Mr. Emerson teaches, a man of genius, in his degree, if he could only find hinself out. It is free and independent thinking that discovers him to himself, while in ture, it is self-knowledge and self-confidence that promote free and independent thought, It is courage that is the sine qua won, and this explains why it is that though some clear-sighted and courageous souls do original work in their youth on early manhood, it is true, as has been said, that most men do not begin to do originak work titk they are forty, They are too scared to be themselves. *

"Our course ought to be, then, a series of problems ordered that each shall, in its place, seem so simple and easy as to encourage the student to attack it with promptness and vigor. To this end it is necessary that the data shall be perfectly intelligible, that is to say that the material to be employed shall be already familiar and the results aimed at clearly understood.

Then the imagination can work easily, or, rather, play about it freely, recognizing and presently realizing all the possibilities.

"Here would be a chance to apply my favorite doctrine of negative injunctions. Once clearly define what is to be avoided abd the field is clear. It is better to buoy the rocks than the channel."

Liberal Culture.

(F.D.S. July '91)

"Our men work well enough, but it seems to meg they don't do any thinking. At any rate, if they do, it is their own motion. We don't ask for any, But thinking means reading and writing and literature and philosophy and more Socratic method in teaching and a more independent attitude in study, and all this requires not only time but leisure time. To bring such things to pass would require a great arrangement of work, and - here it is again- an administration of the mathematical and scientific studies more pertinent to our needs. I had a long talk with Raymond on these points. He brought up again, the need of more concentrated attention, of having fewer topics on hand at once. As it is, the pote is perpetually being taken off the fire just as it begins to boil."

(F.D.S)

"What troubles me about the School is the lack of intellectual activity such as a College incites. I, think I was quoting to you the railroad President who said, he want no more Technology men. He wanted men with a liberal training, men who could think. Nhow a mechanical acception like drawingm or painting, or playing a musical instrument is not favorable to the intellectual life and if we want, as we do, to give our men, so far as possible, a liberal culture we must take extra precautions. One way is to do as you do and as I fail to dog myself, in spite of my good principles, and make the men solve their own problems, and to present things in the form of problems to be solved. Another way is to make them write and upon subjects that require thinking. Nominally the writing of themes and compositions in an exercise in rhetoric and the papers are criticised from that point of view, and to this the objection may be made that literature is none of our business. The answer is that pin the first place, a decent command of speech is needed for everybody and, in the second place, that it is not the form but the substance we really care for. We have no other means of stimulating these fellows minds."

Tol. D. S. '86]

"To-day, to my astonishment, my year suddenly ended, and I am already granding up the loins of my mind for vacation work. This I mean to make very serious, for I am convinced that all my methods need serious alterations. They are so good that I am encouraged to make them as good as possible, while their defect have become so obvious that it will, I think, be a perfectly simple task to mend them -- simple, but laborious."

[F.D.S.'91]

"'Nothing is good enough but the best,' as Goethe said, and this is as true of institutions as of Art, especially of schools, which are so fateful. But it is as true of school-masters as of schools it is, and which of us is equipped for the best work? Certainly not I. The moral of this is that we all need time for study. Yet the classes need constant looking after and visibly decline when left to themeselves. This is a serious problem, and it must be met in advance by arranging a careful scheme of Attendance and an equally careful scheme of Mon-attendance for each of us. If it is left to settle itself, it will settle us."

Ploress

To)
[F.D.S. 188]

" Now, for people leading the life we do, to give out all the time without taking in is conducive to a momentary efficiency, and may be necessary when things are first starting, but it is the straight road to the desert. We cannot afford to land there, nor can the School afford to have us. The more the thing grows and prospers the plainer it becomes that we have got a great chance and that it will take all that is best in the best of us to make the most of the opportunity. Any scheme that does not provide for improving ourselves as well as for making the most of the boys, will be a mistake. I am not myself, I hope, too old to learn and to improve, and to take up and complete my education where it stopped. I feel as if there were a good many things that I know just enough about to learn the rest easily if I had the time, and that I could make mymknowledge tell just as fast as I get it. You and H- are in just the same fix, and however prosperously the School may go on in our hands at present, it will presently require much more knowledge and skill than we, any of us, possess, and we need to be in training against that day----. You see, I don't want you to do as I have done, and drift along in the performance of your functions, relying merely on the strength of your intelligence and a general understanding of the subject without any real learning or exact knowledge. Something can be done on that basis which is very well worth doing, as I have found, rather to my surprise, for I never expected to accomplish anything in this world. But this makes it only the more plain that, with a unique opportunity and an enterprise in hand that had really never before been undertaken, better training and more systematic procedure would have accomplished much more. Now this same chance is opening for you."

Progress.

(F.D. S. 1947

"Things certainly improve, we do make progress. But it is like ascending the Rockies. The first journeys are over the plains. Progress is rapid and considerable altitudes are reached by just going ahead. But when we get near the end of the journey, the road suddenly becomes almost vertical. It is but a question of further advance, for we have virtually reached our destination, but of attaining higher levels. The only improvements now before us are in the quality of the work, and the artistic and intellectual temper of the place. Que faire?"

Progress.

(F.D.S. 197]

"Somehow things seem to grow more and more difficult every year -naturally, if we really succeed in raising the standard of our performance."

(F.D.S. Sept. 11, '00]

"But I rather dread the winter's work. It grows more difficult every year, in spite of practice, for the standard of performance advances faster than we can keep up with it. We are doing better than, ten years ago, ever seemed likely, but when Pope comes and say that it is a much better school than the E. D. B. A. it points to heights it is difficult to maintain. The equipment and performance more than adequate ten years ago to the demands seem of doubtful sufficiency now.

"Besides, time is short, and it takes so long to get even the simplest plans carried out, that I begin to feel in a hurry and impatient, as if I wanted to crowd on all sail and arrive somewhere. We shall see what the winter can be made to bring forth."

(F.D.S. Feb. 12, '00]

"He has touched the heart of our problem. But it is one thing to recognise a difficulty and another to find its solution. For half a dozen years we have been trying to strike a just balance between acquisative and disciplinary work on the one hand, and creative and inventige work on the other. Our maxim of substituting problems for theorems is an essential contribution towards its solution. If we can make this temper pervade all our work it will theoreftically solve our problem and give the School the distinctive character I want it to have."

(F.D.S. May 14. '05]

"Your slips about the National Academy recall the excursions I made in the same field at Mr. Low's instance some years ago. Millet, C.Y. Turner, Willsom, Edgar Wood, LaFarge, Smillie and one or two others were much interested, but the Academy would not listen. Then three years ago, Mr. MacDowell started the ball again, with rather uncertain aim and, as I happened to be laid up in the house, at the moment, I contributed to the discussion a rather lengthy Memorandum and a couple of letters, one to MacDowell and one to Butler. To this Hamlin added suggestions for University Extension lectures, and our separation from the other Schools followed --- I never knew exactly how -- and the issue of the somewhat incoherent Fine Art carcular. Then present schemes seem to follow naturally. But it will take all the good sense that is to be had, and much more than these people generally have in stock, to devise a juducious and workable programme, and to work it. I hope Hamlin is given a proper place in these councils and that the men whose names I have mentioned are active them. I found Mr. Sewell, whom at first I did not know, more sensible than any of them.

"But I do not see any signs of the instruction in "Decorative" or "Industrial" art - what is now so conspicuous under the name of "Arts and Crafts." This is a field in which Painting, Sculpture and Architecture have common interests, and in which Painting, and Sculpture are brought into those relations with practical affairs which have saved architects from the foolishness that have brought so discredit on "Artists."

"Meanwhile I fancy that the adoption of the Atelier system, with its eager and efficient insistance upon somehat limited ideals, may tend to assimulate the architects to the Artists. It will be a difficult task, even if its importance is recognised and it is consciously and systematically undertaken to penetrate the schools of Art with the spirit of liberal culture. But this is what they lack, to save them from the squalid Bohemianism which disgraces

the calling. If the University does aim to supply it, these operations may as well not be begum. But such work can only be conducted by the college artists - such as Millet, Crowninshield, Sewell, and ----? and of these men the best, the gifted and skilful boors whom Taine deplores, are bitterly jealous. We shall see what we shall see."

162 National Academy.

(F.D.S. May 25 '05)

"I am sorry to see that the Academy was so little unanimous, for such things have intrinsic difficulties enough, without being saddled with divided counsels.

But it looks as if nobody had really gone to the bottom of the questions involved, which by no means lie in the surface, and the answers to them still less so. Ever since Academies were invented they have been a name of reproach. The decadence of Italian Painting dates from the moment. This is, of course, no valid argument against them, and the fact may be simply that the Renaissance had run its course, whatever that may mean. But is makes a prima facie which is constantly in evidence. Independently of this, the French and English Academies have been by no means an admitted success, and they are held responsible for the Bohemiamism and low personal time of artists as a body. Skilful abd gifted boors, is Taines, verdict, men who know nothing but the mechanism of their calling and don't want to know anything else, and are actively cut off from the sympathy and companionship of the community whom they serve, and cherish a pride in their isolation.

"Now the question in hand is, to what extent all this is so, and if so, to what extent it can be remedied by breaking with Europeanntraditions and giving painters and sculptors -- and architects -- a fair chance to get a good education. I doubt whether the subject is being approached in this way.

**Now the question in hand is, to what extent all this is so, and if so, a