5 Papers, December 1881

Heart

Montreal dec. 26. 1881.

My dear Prof. Rogers

you will have learned by the accounts in Nature something of what we did in Bologna, and I should like to tell you of what is not written there, which would make a long story, that I hope to tell you if you care to listen, when next I visit Boston, which I expect will be in a few days. I visited the marbles of Carrara, & the serpentines of the Apennines near Florence and also near Spezia. Subsequently

I spent two days with Sellen at the foot of Mont Viso, & there saw again the serpentinic series of the Alps, besides what I regard as types of Laurentian and of Montalban rocks. I spent two days in Leipzig looking over the work of Credner & Zirkel with Naumann & I was three days in Berlin where I dined with Hofmann & met Helmholtz, Beyrich & Kwalet – In Paris I met Dumas, Daubrée, Hébert & many others, & in London Hamilton. Both in Paris & London I made communications to the Geological Societies

saw all my friends.

Of that at the latter you will find an abstract in the number of Nature for Dec. 8 at Cambridge I read before the Philos. Soc. a paper on "Celestial Chemistry from the Time of Newton" which is now in type for the Proceedings. You may have seen by the prints that I was made an L.L.D. by Cambridge.

I sent you before leaving for England my paper on The Domain of Physiology in print with some MS. additions & emendations. As you kindly said there were no objections to publishing it in advance, I sent it to the L. E. & D.

Philosophical Magazine where the paper is printed in extenso in Oct. I sent another copy to Prof. Coffin who wrote me he had sent it to Newcomb, whose election as Secretary I had at the time forgotten. I suppose you will embody the paper in your report to Congress. I propose to ~~revise my~~ print a new edition from the revise you sent you & put on the cover or title page a statement showing that it is from the N. A. report for 1881. but I do not know what title to

[12/26/1881]

give this report. Shall say that my essay is from the Proc. of the A. A. for 1881? I should feel much obliged for a single line or a card giving me the proper phrase.

I now hope to spend some time in Boston this winter — but my plans are not yet settled. We are now busy in preparations for the coming meeting of the A. A. A. S. Aug. 23. but with the example of Boston before us I fear we can only hope for a comparative success. We

cannot commend the wealth nor
the resources of your city -
With best respects to Mrs Rogers
in which my tribe joins, I remain
my dear Prof. Rogers, with great
respect,
Very faithfully Yours
J. Perry Bruce

Prof. W. B. Rogers.

cannot commend the weather
the remainder of your life.
With best respects Dr. Dunn
I remain ever yours
My dear Prof. Rogers
very faithfully
[illegible]

Prof. W. B. Rogers

New Haven Dec 3 1881

My dear Professor Rogers

Since I had the pleasure of seeing you in Phila: last week, I have corresponded with Dr Collier respecting the Cochituate Sewer matter and now beg leave to ask your attention to his letter of Sept (now enclosed) which needs no explanation.

I have suggested that probably the delay involved in awaiting Dr Loring's return, in so brief a time, can hardly make any difference. I assume, in saying this, that your Report to Auditor will hardly go in before X^mas.

Also I suggested to Collier that his friend Senator Edmunds of Vt: would no doubt relieve him of the delicate personal matter of calling Dr Loring's attention to the chance of his requesting the Prest of the Academy to appoint the Comm. in question. I have put the matter before him with such suggestions that I hope there will be no hesitation on Dr L's part in acting on them. I do not remember if Gorsuch is a member of the Academy. If he is might it not be well to add his name to the Comm? Especially as Dr Loring has thus his preference Dr G. & Dr Smith is so distant he will hardly take much hand in the work. Very truly Yours

Prof Rogers N.A.S.

B. Silliman

Recd Dec 13
Letter book

Department of Agriculture,

Washington, D. C., December 12th, 1881.

My Dear Professor Dillman:-

You doubtless from many experiences have learned that whoever undertakes to right any of the things and wrongs in the world takes up a Herculean task. I do hope however that your other duties may enable you to fresh matters to a consummation in regard to this sorghum question.

Of course while I am desirous that anything which may throw light upon the question at issue may be fully and fairly considered, I do not wish the investigation to partake at all of the nature of a controversy, and still less a personal one. The matter is too important, the interest too great to permit anything of such a character to come in as a disturbing element.

Mr Wares pamphlet, as you will see, fairly abounds in errors, even this note to you also has this statement "every practical sugar maker in this country has condemned" the Sorghum business. Now if evidence is desired by the Committee when they come to act in the matter, I shall be able to show by the testimony of very many that they regard the production of sorghum sugar as by no means a hopeless project.

But I suppose that my results and my methods were to be considered, and that is what above all things ~~what~~ I desire.

I went over to the Dept. today hoping to find Dr Loring at home, but I learned that he is out in Iowa and will not probably be at home within two or three weeks. I especially regret this since as I happen to know Secretary Kirkwood is very hopeful as to the Sorghum prospects, and would no doubt be only too happy to see the matter fully and intelligently discussed as is proposed, but another Ratioly settled.

Of course as Dr Loring is my superior

[12/1/1881]

Department of Agriculture,

Washington, D. C., ..., 188 .

I think it would be perhaps over stepping courtesy for me to move in the matter without his approval at least, although as a matter of fact, the greater portion of my work was done before he became Commr. I cannot see how Dr Loring could be other than gratified at such a solution of the matter, since one of the first things he did as Commr was to, in a less formal and conclusive way, do the same thing contemplated by the resolution, for he had two professors of Agric. Chemistry come on here for the express and sole purpose of investigating this sorghum matter; viz Profs Goessmann and Weber, the latter of the Illinois Industrial Univ. at Champaign Ill, but they reached here the morning after the President's death and left almost at once.

Senator Edmunds gave me a cordial welcome Rectly Kirkwood, but when I learned that Dr Loring was absent I thought I had better not personally move further in this matter. I hope however that this may not more than temporarily retard matters and I shall very greatly regret it if it does. You say that you "supposed Dr Loring would be only too glad to have this matter referred to an independent jury, so his hands would be free of any responsibility so far forth." Well now I am by no means sure that you have not stated the matter exactly as it exists in his mind, indeed I think you have. From all I can learn he wishes to know just the facts, but owing to press of other matters he certainly has not had the chance to inform himself concerning this. That he is as yet a disbeliever only leaves him with the great majority, for Mr Ware has very many, not so stupid and blundering, it is true, and neither as an accepted expert in Beet Sugar so influential, but Mr Ware has many followers. His prominence and his position only caused me to depart from my custom & propose to answer him.

[12/1/1881]

U. S. Department of Agriculture,

Washington, D. C., ..., 188 .

But at once that this matter assumed this phase that the Resolution gave it, and there appeared the very opportunity I desired, viz:- a deliberate and formal consideration of the whole matter by a Committee so constituted; any reply such as I proposed to make to Mr Ward at once became trivial and immaterial, and there was no desire that the proposed investigation should be other than wholly impersonal and as full and complete as it can be made.

I think you will agree with me that in the absence of the Committee I had better make no further move myself, but I hope all may soon clear up and that the result may be such as to justify the confidence I feel in this sorghum matter.

Sincerely Yrs

Peter Collier

2

Prof Rodgers.

Dear Sir

Owing to the informal way in which I was appointed and began my work here. Prof Clark having made the arrangements, I have been unable to bring about a formal arrangement in regard to Mr Tappen. hence unable to obtain any compensation - I am, in consequence financially embarassed. and seek your aid to straighten out my affairs with the Institute.

You will remember, the arrangement made by Prof Clark, and accepted by the authorities, was, that I should give two courses of Lectures on architecture, and receive $200.00 for each course; and in addition receive tuition in the school for other services rendered to the Architectural Department throughout the year

I have already given seventeen Lectures of the 1st course and have seven more to give -

I am yours Respectfully

Henry D Hooker

Dept. of Architecture
Mass. Inst. of Technology
Boston Dec 5th 1871

THE TECH.

Boston, Dec. 6th, 1881.

Prof. William B. Rogers,

Dear Sir,

The students interested in the new Institute paper "The Tech", are anxious to show their regard for you by giving in one of the numbers a short account of your connection with the Institute. They also wish to put in a heliotype copy from one of your photographs but do not like to do so without asking your permission. It will not be done at all unless it can be done well. If you have no

objection to this, there is I believe at Hardy's, the photographer's, one of your negatives from which a copy could probably be obtained, with your authority for it.

Of course nothing of the kind will be done without your permission.

Awaiting your reply,

Yours very truly.

Henry F. Ross
Sec'y Board of Directors
of "The Tech"

Boston Dec 23d 1881.

Prof. Wm B. Rogers.

My dear Sir

I enclose the note from Prof Wade which you sent me just before leaving for Phila & which you evidently ~~thought~~ did under the impression that I was on the Comte for settlement of his claim. But as I was not a member of the Govt. at the time his claim was incurred, I can do little to help in the matter. His request seems reasonable & I dare say the Comte would grant it. I believe Mr. Cummings & Mr. Ed. Atkinson were on that committee.

Sorry to bother you with this while you feel so poorly as you did last Thursday eve.

Yours truly Edw S. Philbrick

Continental Hotel
Xmas Eve 1881

A thousand thanks to you dear Lucy for thought of us — the wine to Delia and the Watt's Supplement to me. We are thinking of you a great deal these few days, picturing you busy in your plans to make the little ones and whole family circle happy either tomorrow or the Monday whichever it may be, or

rather this Evening as I should have remembered. Never having written to both Emma & Eliza yesterday I have nothing worth saying, only to inform Williams that the Small Electrical machine will go to him either this Evening or Monday Morning. I have included in the box a small Geyden jar with pretty twisted tube of colored lights – and a Nitrogen & Hydrogen Spectrum tube & the connecting wires.

In showing it at your "Club" you will find several interesting points to refer to & exhibit.

1st By turning the plate backwards a moment you reverse the condition of the knobs

2nd By connecting the wires with the ends of the N & H tubes you get a pretty effect.

3rd By holding the twisted tube between the fingers at one of the bends & between the bar that carry the knobs you can get sparks that are beautiful. It is best to get the real sparks to pass & not merely the brush

4th By putting the Leyden Jar in front & connecting the outer coating with one knob & the inner coating with the other, and then approach the knobs to within less than a half inch of each other, the Jar will be charged & soon discharge itself with a loud sharp snap. Or removing the knobs beyond the reach of sparks, you can show the L. Jar is charged, just as in the case of the Electrical-friction-machine of old times,

5th Yes I can repeat Faraday's
famous experiment of
showing that this kind of Electricity
will decompose. I send
you some Iodized Starch
paper which, I hope if
moistened a little will
show the effect. I have
just prepared it at my writing
table, shall be glad to know
how it acts.

Delia having been so
much a sufferer with what has
seemed muscular rheumatism

I determined to try Electricity and have been much pleased to find this form of machine gives the means of giving a current either direct or opposite, that is from the extremities of the nerves towards the centre or the reverse, and thus medically to exalt or diminish nerve power at will — by simply reversing the machine's electrical condition.

I have hardly a doubt if a small decomposing cell with many wires — as each electrode — were used, acidulated water could be made to show bubbles of H_2O.

Just at this point, the Box with the machine well packed by Queen has been brought in, and will be

forwarded to you on Monday morning. Unpack it carefully.

The sudden change since yesterday has given Betsie a sore throat that troubles her, but we hope it will soon pass off.

I hope Mr Billicum will be very careful in his exposure – there is a great deal of Pneumonia & Pleurisy about.

As I wish to send this tonight I will close – with words of love to you all from us both & wishing you a happy Xmas.

Your devoted brother

Robert

We are ashamed of ourselves in forgetting to prepay for the box sent a few days ago!

Dear Prof. Keeling Dec 28, 1881

Your letter of last month found me land-locked in a perplexing uncertainty ~~for~~ ~~what I brought with me from~~ ~~Philadelphia~~ from which I can ~~only~~ not be certain, ~~what~~ this must be the reason for ~~delay~~ ~~of my letter~~ ~~in replying~~:

~~I am thankful~~

I am thinking over your proposition. I have concluded to limit my estimate to such an outfit as might suffice for making a fair beginning in the establishment of a Technical Dept. in your College. The full equipment of a School of this kind, would as you can readily understand call for ~~that~~ a far greater expenditure, ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ than I have suggested.

Outfit of Chem. Laby

Balances	600	700
App: & Reagents	1200	1600
Furniture & Fixtures	1400	1400
		3200

Physical Lab.

Apparatus	4000
Furniture & Fixtures	1000

Engineering -

Models - Machines Tools.

3000

Metallurgy & Mining

2500

~~Drawing~~ Drawing Office Furniture 1500

Say 15 000 in all.

Boy You will know from his Chief assistant Mr. Gen. F
& I have recently appointed Instructor in this Department, who
graduated at the Polytechnic Institute two years
ago, & has since continued his Eng. & Studies under Prof.
Wm. Ellis & the Mount Winter in Jersey, & has recently
been employed under the Census Bureau & Report on the
Hydrography of Streams of the Pacific Rail Road

[1881]

1881.

Mass: Institute of Technology

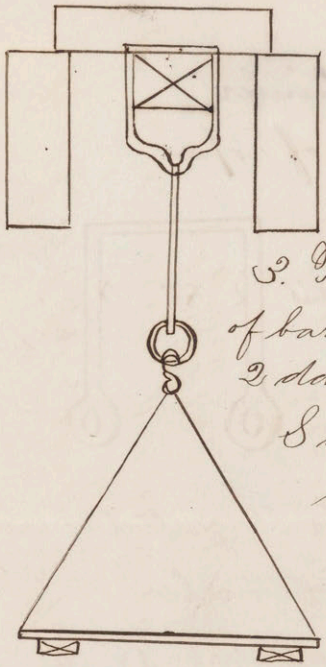
The friends of the Institute & the public generally will be interested to know, that the Chair of Civil & Topographical Engineering & that of Building & Architecture, made vacant early in the Summer by the resignations of Prof. Henck & Prof. Ware, have recently been filled by the appointment of Prof. Geo. L. Vose & Prof. Thomas M. Clark, & that in both Departments, especially the latter, a more complete & practical organization has been provided for them that previously existing in the Institute.

Prof. ~~George L.~~ Vose, the newly appointed Prof. of Civil & Topographical Engineering, has held for many years the Professorship of Engineering in Bowdoin College. He ~~is an engineer of large~~ has had large experience in his profession, is the author of valuable treatises on practical subjects connected with engineering ~~in the profession~~ as well as of many critical papers which are remarkable for independence of judgement & clearness & incisiveness of style. He has moreover the reputation of being an unusually able & attractive teacher giving especial interest to the practical side of engineering work & construction.

T. M. CLARK,
ARCHITECT,
178 DEVONSHIRE ST.,
BOSTON.

Architectural Laboratory Experiments for the Fall Term - 1881.

1. Testing of cements by mixing into cakes, bars Etc. For each student - two Saturdays.
2. Putting bricks together with cements and mortars and pulling them apart - all - 2 days.



Apparatus
50 bricks

3. Transverse strength of bars of cement. - All - 2 days.
Same apparatus as above.

(4.) 4 Brick piers 8" sq. 5 ft. high - 200 bricks
(5.) 2 Stone piers 6 students - 2 days
(6.) 3 Arches with piers. 6 students - 2 days. 150 bricks
1 Concrete Arch 6 " 2 "
7. Transverse strength of stone beams.
All students - 1 day.

Apparatus

12.00 750 bricks { 50 face brick, 50 soft ", rest ordinary kind }

1.25 1 bbl. lime

6.40, 3.75, 2.75 } = 6 bbls of cement

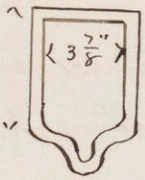
2.00 Stones for 2 stone piers 8" sq. 5 ft. high

1.00 Some gravel

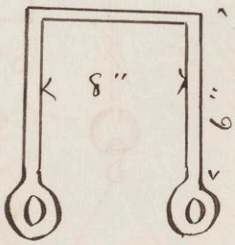
3.00 Sand

8.00 500 ft. timber

2.00 $2 worth of rope



6 Irons like this



3 Irons like this

4 scale pans

15.00 200 lbs Adjusted iron weights

5.00 1 doz. trowels

5.00 12 boxes 6" deep 18" sq. 2 holes

10.00 6 " 6" " 2½ x 3 ft. 2 Shovels

75.00

[1881]

T. M. CLARK,
ARCHITECT,
178 DEVONSHIRE ST.,
BOSTON.

Appropriation for the Architectural Laboratory

Bricks & Cartage	$12.00
1 Cask of lime	1.25
4 " " Rosendale Cement	6.40
1 " " Portland "	3.75
1 " " American "	2.75
Cartage on lime & cement	2.00
Stones for piers	3.00
2 tons Sand	7.00
250 ft. spruce plank	6.00
Rope	2.00
Iron Straps	8.00
Scale pans	3.00
200 lbs Adjusted weights	15.00
1 doz trowels	5.00
Boxes	7.00
Hoes & Shovels	4.00
1 Mason's level	
	$88.15
Sundries	11.85
	$100.00

This must be 1881

1880

At a special meeting of the Corporation held May 17 for the election of a Pres. of the Institute, the Comm. on the School in conference with the Pres. recommended Marcus A. Walker for that office at a salary of $5000 for life: the election to take effect on & after Oct. 1, 1881.

A ballot was taken of the members present resulting in 15 votes in favor of Prof. W. & one vote withheld. As several votes (the Maj. of the total No. of the Corp.) in Europe were unable to attend the meeting here, adjourned sine die until Wednesday next. The votes meanwhile to be kept open.

Please enclose your vote to me in case as early as practicable. In

[1881?]

Institute of Technology

The following Notice of the late E. R. Mudge, a Member of this Corporation since the year 1872, was submitted by the President & was accepted by the Corporation as an expression of their esteem for the deceased.

"The Corp. of the Mass Inst of Tech. at their their first Meeting since the death of their late Colleague - Mr E R Mudge - desire to place on the Records of the Inst. an expression of grateful ~~regard~~ regard for ~~the with which~~ the high personal Character of the deceased, which combining suavity of bearing with decision & energy of purpose endeared him in all relations so useful and acceptable as a fellow citizen, — for the interest which he has taken in the prosperity of the Institute, ~~as evinced by showing in its Corporate & by personal Contributions to its Funds~~, — and for the intelligence & zeal with which he has endeavored to promote the great industrial interests of the Community, and to forward the benevolent enterprises which have commended themselves to his sympathy.

It was then voted that "the President of the Institute be requested ~~to~~ transmit to the family of Mr. Mudge a copy of the above ~~notice~~, with an expression of ~~the~~ its heartfelt sympathy, ~~of the Corporation~~ with them, in ~~this great~~ their bereavement."

Dear Sir 1881

Your favor of the 1st reached me last night.

I have by me the Barnsley a recollection of the map to which you refer which must have been prepared by Professor Lesley several years before I accompanied my brother for a season in the Anthracite region. At that time Mr Dahlen aided I think by my nephew Wm B. Rogers Jr was doing topographical work ~~there~~ in that district.

I shall make enquiries for the map & if found shall be glad to have it sent you.

Mr W. B. Rogers who will be absent from home until the Autumn, may help in the search. I fear it is not likely that ~~[illegible]~~ any of the map in question as the last map he may have seen or heard of some years later.

It is possible that with all a thorough search may be found. ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~

Plane & Spher. Trigno.

Spherical Astronomy & Nat.

Analytic Geometry

Integral Calculus.

&c

Alg. Cont. Solid Geometry

Descriptive Geom.

Statics

Differential Calculus

1881

1

Secretary's Duties.

I. To send to each member of the Faculty a written notice of the time and place of each Faculty meeting, together with a statement of the special business to be transacted.

II. In the absence of the President and Chairman, to call the meeting to order and entertain the motion for a chairman pro tem.

III. To record the proceedings of each meeting, and read the same at the next meeting.

IV. To keep on file all communications received by him as Secretary, and copies of all his replys, as well as all reports of committees.

V. To notify the Chairman of any committee, that may be appointed by the Faculty, of the appointment of such committee, of the purpose for which it was appointed, and who are the members thereof.

VI. To submit all petitions of students to the proper Professors for their consideration before the next Faculty meeting.

VII. To see that each student is properly registered, and that his attendance paper contain only such subjects as he is entitled to pursue, and that he is pursuing his studies in accordance with his attendance paper.

VIII. To send to each teacher at the beginning of each school term, an official list of all students whom he may for the time being admit to his classes.— This list shall include all students who are entitled to take the study in question or who will be so entitled on making up conditions.

IX. To send to each teacher, one week after the beginning of the school year, a revised official list of all the students who are fully entitled to attend his classes.

X. To notify each teacher of such students as may there-

after be entitled to enter his classes.

XI. To apply personally or by messenger, to any Professor or Instructor, who fails to make a report of absences before Monday noon following the time when the report is due for an immediate compliance with the regulations.

XII. To carry out, in such manner as may be prescribed by the Faculty whatever rules may be adopted by them in regard to the recording and reporting of absences and tardinesses of students, or other facts in regard to their progress during the term. For the details of this rule see the rules on Absences — Tardinesses — and Term Progress.

XIII. To keep in such manner as may be prescribed by the Faculty, a record of every Faculty meeting, and all votes and appointments by the Faculty.

XIV. To keep, in a separate book, in such form as may be prescribed by the Faculty, a detailed record of the standing of each student at the annual, semiannual and condition examinations, as well as all votes or other facts affecting the students' standing during the term which the Faculty may decide to have recorded.

This book shall be kept in such form that the exact status of the student may be readily found.

XV. To report at the first Faculty meeting after the semi-annual and the annual examination a tabular view of the marks of each student as reported by the several Professors and Instructors.

XVI. To make a return of these marks, in the case of each student, to his parent or guardian, together with the vote of the Faculty upon the same, as soon as the Faculty shall have acted upon them. This rule, however, not applying to marks received at the Entrance ex^n at the Graduating ex^n, or at any condition ex^n, which three classes of marks are not to be reported to the student nor his parent or guardian.

Prof. Wing's suggestion: That in future the returns made of the standing of students to Parents or to the students themselves, be not numerical but graded as follows:— "Conditioned", "passed", "passed creditably", "passed with honor"; 4 grades, call them what you please.

XVII. To make out and submit to the Faculty for their approval before the beginning of each term a Tabular View of the exercises in the several Classes and Departments for every day of the week that the school is in session, showing the hours during which each exercise is to occur. To cause the same, when approved, to be printed, to send a copy to each Professor and Instructor, and to post a copy on the bulletin for the information of the students.

XVIII. To prepare each term, and to report, for the use of the Professors and Instructors a scheme of the rooms in which the several exercises shown on the tabular view for the term are to be held.

XIX. To note on the posted tabular view all changes voted by the Faculty, so soon as the votes occur.

XX. To record in the Room scheme, all changes reported to him by the Professors and Instructors pertaining to them, as soon as they are reported.

XXI. To send prompt written notice to all students who may be warned by vote of the Faculty for negligence either in attendance or in work.

XXII. To report to the Faculty twice a year, at least two weeks before the semiannual examinations and at least two weeks before the annual examinations, a scheme showing the time and place of each approaching examination, the Professor or Instructor having principal charge of the same, and all persons appointed to assist in conducting it.

XXIII. To transmit to each Professor or Instructor a printed copy of such scheme as finally adopted by the Faculty, and to post a copy on the bulletin for the information of the students.

XXIV. To see that the proper arrangements are made on each examination day as to rooms, the distribution of paper by the Janitors, &c. &c. and to note and report to the Faculty any delinquencies of persons assigned to duty.

XXV. To carry on all official correspondence as Secretary, and to keep on file copies of his replies to communications as well as the communications themselves.

XXVI. To keep a list of names and addresses of all persons to whom catalogues are sent, and to send catalogues to such persons as apply for them and such other persons as it may be deemed desirable to send to.

XXVII. To see that all Diplomas and Certificates awarded by the Faculty or Corporation are properly filled out and delivered to the persons entitled to receive them.

XXVIII. To keep a list of all persons applying for tickets to the Lowell free course; to submit such list to the Faculty, or the proper Professors, and to send the tickets to such persons as are to receive them.

XXIX. To keep posted on the door [illegible] the hours at which he, or his repre[illegible] to be found in the office.

XXX. To keep on file a list of all text-books used in the different classes in the School.

Absences — Tardinesses and Students' Progress.

1: Each Professor and Instructor shall make a report to the Secretary every Saturday (while the regular exercises are held) of all absences and tardinesses that have occurred in his classes the preceding week. If no absence or tardiness has occurred he shall report that fact.

2: If any Professor or Instructor fails to make such report before Monday noon following the time when the report is due, the Secretary shall forthwith apply to him personally or by messenger, for an immediate compliance with the regulations.

3: The Secretary shall make a record of all absences and tardinesses in a book kept for the purpose and shall report the absences and tardinesses of each week at the next regular Faculty meeting.

4: The Secretary shall make, on such form of blank as may be approved by the Faculty, to the parent or guardian of every student not of age who takes any first or second year studies, a monthly return of absences and tardinesses. He shall make such return to the parents or guardians of third and fourth year students only when in his judgement the absence is excessive except when a special vote of the Faculty in any special case requires such notice to be sent.

5: Once a month the Secretary shall, by the use of some blank to be devised by him and approved by the Faculty, inform himself of the individual opinion of each teacher of the first and second year classes as to the progress of each student who takes any first or second year study; and shall transmit such information together with the absence report to the parents or guardians of such students. Also in cases where the students progress has not been satisfactory warning to that effect shall be sent, &c.

Prof. Wing favors the reporting of unexcused absences on

1879 - - - 1881. [1881?]

As from a recent Conference between a Committee representing the Mech. Char. Association and the Chairman of the Faculty of the Institute it appears that there is uncertainty & misapprehension among the members of the Association as to the precise services due from the Institute in return for the gift of four thousand dollars made some years since by the Association, for founding Scholarships in the School of Mechanic Arts, then about to be established in the Institute ;... and as there appears to have been no recorded agreement between the parties, further than the statement contained in the annual Catalogues of the Institute - calling attention to the two Scholarships founded by the Association in connection with the School of Mechanic Arts ;... and furthermore as the number of persons who have availed themselves of these Scholarships has been much fewer than was originally contemplated, although the students who have applied under the auspices of the Association have been deemed admissible in every case been admitted - and as it is believed that instruction of an equivalent value in the studies & exercises of other departments of the Institute would in many cases be preferred by the Association, as a commutation for the course in the School of Mechanic Arts - it is therefore voted - that in consideration of the peculiar circumstances under which aid was rendered by the Assoc.

It is the desire of the Institute to give the most liberal construction to the ~~original~~ agreement originally made ~~arrangement between them & the~~ with the Association with them. It has to give them scholarships as large & varied usefulness as practicable.

Voted that the following statement & plan ~~be adopted~~ defining ~~for the future~~ the classes of the Institute in relation to the scholarships the services which the Institute is prepared hereafter to render in connection with them ~~scholarships~~ be recommended to the approval of the Corp. of the Institute, & that meanwhile they be ~~observed~~ submitted to the Rep. Theodore Mack. Assoc. for their consideration & acceptance:

2

3

[1881?]

When the Charitable Mechanics Association voted an appropriation of $4000 to aid in starting the School of Mechanic Arts there seems to have been a misapprehension in the minds of many members as to the return which was to be made in consideration of this payment. The money was received for founding scholarships and the Association acquired the right to keep two students in the school all the time. But some supposed that in case of vacancies in any year the claim to places would be carried forward to subsequent years.

In fact there have been few applications for the chances and so far there has been but one student at a time in the School who has received instruction on the account of the Association. The members have felt therefore that they were not receiving a fair return for the investment. Even the President of the Association went so far as to make the hasty statement, in his annual address, that the sons of members were practically excluded from the School because the Institute had made the requirements for admission too rigid. But no student applying under the auspices of the Association has ever been denied admission; and indeed no examination at all is required of those who desire to take shop work and

drawing. The examination for admission to the other studies of a regular course have really been little more than nominal.

Perhaps the President based his statement on a consideration of the requirements for admission to the School of Industrial Science. But the Association gave the money for a school that was to be established and not for the one then existing and of course have no claim to the privileges of the higher school in which the scholarships are $5000 each, instead of $2000.

A Committee appointed by the Association now comes and desires to have us consider whether there may not be a modification of the terms of the original agreement so that the Association may have a better chance to receive the full benefit of the scholarships with no disadvantage to the Institute. They very justly state that the money was raised and paid in a time of commercial depression and was an important help in bringing the workshops into existence. It is found that the sons of members sometimes have a desire to learn something different from what is taught in the lower school, as, for instance, chemistry. And when young men have the inclination and the ability they might, without detriment to the Institute, be allowed to take these extra studies in place of the branches taught in the School of Mechanic Arts. Such flexibility of the original terms of agreement might well be allowed so long as the regular curriculum of the lower school remains as limited as it is now. It is to be hoped that hereafter a third year and a greater range of subjects may be added.

Considering the peculiar circumstances under which aid was rendered by the Mechanics Association, it might be well to give the most liberal construction to the original compact and have an explicit understanding of the following purport:-

1.- The Charitable Mechanics Association is entitled to the full benefit of two scholarships in the School of Mechanic Arts, that is they may keep two students all the time in the school.

2.- In default of students in any year or years the vacancies (chances) shall be credited to the Association for use in subsequent years;-provided that no more than five pupils shall be kept in the school in any one year, in behalf of the Association.

3.- A commutation of instruction in the School of Mechanic Arts for instruction in the School of Applied Science shall be allowed at the rate of five years in the upper school in place

of eight years in the lower school, — the tuition in the lower school having been originally set at $125 while that in the upper school is $200. In other words a scholarship in the lower school entitles the pupil to enter as a Regular Student in the higher school on the payment of $75.

4. — ~~The bond usually required of students shall be waived in case of a beneficiary of the Association~~

5. — In place of sons of members of the Association's daughters or female wards of members may be admitted to those departments in which provision is made for the instruction of women, with the same restrictions as are prescribed for other students.

6. — Whenever a scholarship is known to be vacated the Secretary of the Institute shall duly notify the Secretary of the Association that there is room for another student.

7 As in the case of all other students, beneficiaries or proposed beneficiaries of the Association may be admitted to only such studies as they are found prepared to pursue with advantage.

Dear Admiral Rodgers.

Your letter with enclosure memorandum respecting naval officers — the Board of Visitors received here soon after they adjourned, from Phila. and I should have replied before leaving but for the disturbing influence of what I am now recovering from.

I shall cheerfully assume in any form as to matter of observation & pleasing to me the recommendation — which commands the general approval of the Commission — of what I am a member & of the Co-operative Committee of the Academy — with great respect believe me

Yours faithfully

William B Rogers

Prof Nat. Phil. &c.

Dec. 1881.

[1881?]

Circular appointing Members of Advisory Com: on Transit of Venus in Dec: 1882.

The Commission appointed by Gov^t some years since to make arrangements for the observation by American Astronomers of the Transit of Venus of 1874 & matters relating thereto as I understand is still in force & is anxious to take measures as early as practicable to prepare for the Coming Transit Dec: 1882.

The Commission through its President Admiral John Rodgers Superintendant of the U. S. Naval observatory has requested me, as Pres^t of the Nat: Academy of Sciences & as a member of the Commission to nominate five members of the Academy to form an Advisory Committee to co-operate with the commission in determining

the best methods of observing the approaching Transit as well as the stations to be occupied & the Instruments to be used.

The joint Commission thus formed will, it is expected be at once authorised by the Sec^y of the Navy to act in the premises & to continue in force until the next meeting of Congress, when the Commission may be confirmed or modified by that body.

I ask you to allow me to appoint you as one of said advisory Committee

[1881?]

(1) Prof. Church - of Cornell Univ" - a nephew of Prof. Church of W. Point fame.

Prof Eddy says of him: He has math'l gifts of a very high order & has had great success as a Teacher of Engineering -

Prof. Wing speaks of him as "a very strong man and a good teacher" and says "I know of no one whom I could recommend with greater confidence as to character, learning and (so far as I can judge) scientific attainments.

As to his courses at Dst. & the amt. of his practical experience - refer to his Letters to me.

(2) Mr. C. F. Allen - Class of 1872 -

His record as a student at Dst. excellent, & in Professional studies, very high. Their record.

As to the amt. of his practical experience & business capacity & energy - See his Letter to me - And the letter of W. R. Morley Chief Eng. of the Sonora R.R. Also refer to Mr. Carson - for information as to these & other qualifications -

Prof. Richards praises highly his personal qualities. Says the Sch. Trustees & fellow Engineers have a very high opinion of him & this makes him more likely to succeed in bringing the Dept. into good working condition. Prof. Crofs says that though he has had no experience in Teaching, his ability & tact shown in the

also in his making a good Teacher — Prof. Ordway speaks to the same general purpose.

He is spoken of as very bright & energetic — with great confidence in his success in whatever he undertakes — But while probably able in all practical matters, deficient in general & scientific culture —

Prof. Chas A. Pike of the Class of 1871. Entered the Inst. from the Dorchester High School at 16 years; is now 30 yrs. old — Prof. of Civ. Eng. at Ohio for 4 years — Now Prof. at — He has had 10 yrs experience as a Teacher of Eng.

Very favorably spoken of by Prest. Fernald of Ohio. See Pres. F's letter — As to his practical office training, see his letter to me — and the testimony of the Chief Eng. of No. Pacific R.R. where he is now employed —

Prof. Renker says that of the men named, except Eddy, he ranks him the best if he has fully regained his health, is an excellent Teacher and a man of good ability.

Prof. Cross was "told by one of our graduates that when Pike was at Ohio he stood next in authority to the Pres. of the College".

Prof. Ordway does not speak strongly & thinks that he may lack engineering practice.

His record while a student in the Inst. took, was very unequal in the different studies — for the years 68 & 69 the average perhaps fair. But in 70 & 71 showed great improvement, & might be called excellent.

Mr. G. W. Swain (who applied to be Instructor) graduate of the Inst. in 1877. Had a very high standing for ability & attainments, at the Inst. — took all the Props. One of the most capable students we have ever graduated. Has lately spent two or more years in further Eng. studies in Berlin under Winkler & others — See Winkler's & others Reports —

See Swain's letter to me — shows his papers in Van Nostrand.

Is just making up a Report for the Census on the Water Power of the Rivers of the Atlantic Slope & has been requested by Trustees of Sailing Rivers to examine & Report on American Bridge Construction

Prof Vose late of Bowdoin College

[1881?]

(Prof. C. A. Smith) Grading 1868.

Prof. Langa – likes him personally – but cannot speak of his qualifs. Did not impress him as being as able as Greene – thought good –

Prof. Richards, thinks he would take the boys out into practical work in a way that he has always wanted to have them. Thinks him all right in the Math'l & theoretical parts of his profession

(Prof. Cross) – likes him personally – was told by Dr. Eliot that he consid'd Smith a very valuable man, & that they should be sorry to lose him. He thinks – Smith the next strongest candidate to Greene. Mr. Cross of St Louis represents him as highly esteemed for his services at the College –

(C. Frank Allen) Grading 1872 –

His record as a student at Tech. was excellent – & in Descriptive studies very high.

Prof. Ordway – thinks that he might be preferable to Pike

Prof. Richards speaks very highly of his personal qualities – he is genial, modest, reliable – all his school masters & fellow engineers have a very high opinion of him – Thinks that his appointment would be more likely to bring the Dep't into an active practical working cond'n. Not that of any other mentioned –

Langa never knew him. Prof. Cross – says that though Allen has had no experience in teaching he has shown good ability at the Alumni Meetings. He thinks he would make a good teacher. A thorough gentleman. Courteous, clear & able in discussion –

See his Letter to Me, & Mr Moseley's testimony – + 11 20 It

(Prof. Pike) – graduate of 1871 – His standing at the Institution was. Prof. of Civ. Eng. in Ottawa – Me – & now at Univ. of Minnesota – Ten years experience as Prof. & Considerable practical experience in Civil Eng.

Prof. Rankin – says that of the men named exept Eddy he would be the best if he has fully regained his health.

It is an excellent teacher & a man of good ability

Prof. Dewey does not speak strongly – thinks he may lack practical exp.

Prof. Cross – was told by someone (not Pike) that when Pike was in Maine he stood next in authority to the President of the State College

Entered from Dover High Schl. at 16 yrs. – is now 30 years old.

Mr. Swain – graduate of 1877 – Had a very high standing for ability & attainments – took all the Prizes – One of the most capable students, he have ever graduated – Has spent two or more years in further Eng. studies – under Winckler & others in Berlin –

All his Profs. of Int. speak in very high terms of his

Profs.

[ca. 1881]

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY.

Boston, ... 188

On going over list of Corporation I find on Wednesday the following members were

Edw. S. Philbrick	in	New Hampshire
Henry B. Rogers	"	Europe
John M. Forbes	"	California
S. D. Warren	"	"
J. J. Borné	"	? ? ?
James L. Little	Sick	
John Cummings	"	
John A. Lowell	"	
A. Thayer	"	

This leaves Carson, Endicott, Whitney, Cobb, Nudge, Bradley & Fairchild the only men of our active list who might have been present, and were not.

Truly yours
Levi W. Talbot Jr.

[1881?]

The committee appointed to prepare a notice of the late ~~Dr~~ Geo. B. Emerson report as follows

The late Dr. Geo. B. Emerson.

The connection of our venerable colleague with this Institution dates from his participation some twenty one years since, in the work of the "Committee of Associated Institutions" through whose efforts the Charter of the Institute was secured. Since then he has continued ~~[illegible]~~ to share in ~~the~~ government of the Institute either as a member of the committee on Publication or the committee on the School. ~~Nor has he throughout that time~~ and has never ceased, whatever may have been his other more exacting interests, failed to give to the Institute the benefit of his earnest sympathy & support.

In remembrance of the valuable & long continued service thus rendered by our late colleague to this Institution, & in view of his zealous labors for education in general, the Corporation of the Institute desire to place on its record an expression of ~~his~~ its high esteem for his ~~literary~~ varied literary & scientific culture, his wisdom as a counsellor, his sympathy & ~~[illegible]~~ kindness as ~~a teacher~~ on the Board of Instruction ~~as well as not~~ as a teacher or Instructor.

and his urbanity & frankness as a gentleman ~~& for~~ as well as the enthusiasm with which, almost to the close of his fruitful life, he entered into whatever thoughts & purposes might tend to the spread of sound knowlege & to the intellectual & moral benefit of the community.

Voted that the above Report be adopted, & that a copy of it be presented to the family of the deceased, & that a copy be sent to the Boston Academy of Arts & Sciences, with an expression of our deep sorrow & our most respectful sympathy.

Geo. R. Emerson

[1881-1886]

The committee appointed to consider the question of increasing the time devoted to Integral Calculus, make the following report:

The committee are unanimously of the opinion that the time at present given to the instruction in Integral Calculus is insufficient, in view of its importance in the subsequent work of the school. They are in favor of a decided increase in the number of exercises, provided room can be found for an extension of the course.

The committee have considered various schemes for providing an increase in time, all of which are open to objections of a more or less serious character. They regard the following as the most feasible plan:

To change in Courses I, II, III (1st option), IV, VI, and VIII,

	Exercise.	Preparation		Exercise.	Preparation.
Integral Calculus Applied Mechanics	45	90	to	60	120

It being understood that the last 20 exercises of the term (allowing for vacations) are to be allotted to the Applied Mechanics.

To make room for this increase of time, the following changes

are suggested:

Course II. To change Constitutional History from 3rd year, 1st term, to 4th year, 1st term; and Heating and Ventilation and Metallurgy from 4th year, 1st term, to 4th year, 2nd term.

Course IV. To change Geology from 3rd year, 1st term, to 4th year, 1st term; and Heating and Ventilation from 4th year, 1st term, to 4th year, 2nd term.

Course V. To change the 1st option from { Integral Calculus 21-42 / Physics 30-0 } to Integral Calculus 31-62. It being understood that the students discontinue the subject at the close of the 31st Exercise.

Courses VI and VIII. To discontinue "Extra Integral Calculus".

Course IX. To change the 5th option from Integral Calculus, 36-72, to 40-80.

As the committee do not care to make a definite recommendation in a matter involving several questions of general policy, they simply report the above as a suggestion.

J. D. Runkle
Chas. R. Cross
Robert H. Richards
Geo. L. Vose
Gaetano Lanza
Webster Wells.

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