17

Papers, Jan. - Aug. 1869

Baton Rouge March 15, 1869

Mr Peter Cooper

Dear Sir:

I notice in the papers of this city that you have given the Cooper Union $20,000 to be applied to the purchase of a complete set of mechanical models illustrating every conceivable form in which power can be applied to machinery. The models to be purchased in Darmstadt Germany. I was very glad to see so good a movement made in that direction at your Institute, I have been at work for several years in connection with our Technological Institute here, to get up a Library of models of the elements and the simple combinations of machinery, and have been collecting together sketches and plans of such elements and combinations as are not generally known to inventors and constructors of machinery, in order to make a complete Encyclopedia of every

mechanical element and combination of machinery, the general plan of which is described in an article in the Scientific American of Feb 13. of which I send you a copy

We have many models from Germany and are ordering more of regular machines to and in teaching and illustrating to and pupils, such as steam Engines Mining machinery, water-wheels of various ~~kinds~~ kinds, Pumps, Cranes, hoisting machines &c &c but I believe they have never given their attention to the getting up of a classified set of simple elements and combinations which is very different from regular machines, and that is what I consider of the utmost import ance to and inventors and constructors of machines, as much so as the dictionary is to ~~after~~ the author or any one just learning and language, and as much the largest part of these elements have been of American invention and are not known in Germany, and are being invented every day. I thought that it would be by far the best way to build the models ourselves, and then they could be made on a proper scale and style of finish &c and

have commenced building them accordingly.

and I thought perhaps if your Institute should adopt the same plan in part, that some arrangement might be made to make duplicates in which case it would cost much less to both parties. for instance as a general thing, a model that would cost say $20.00 could be duplicated for ten, the expense of what drawing was necessary and the patterns for castings would be saved in making the duplicate

I have received many letters from different individuals since my plan appeared in the Scientific American speaking in the highest praise and of the great usefulness of the enterprise. and offering to give any assistance in their power to carry out the plan to the greatest perfection, and would furnish sketches or descriptions of such elements as they had invented or had seen or knew of. that was not generally known

Should be much pleased to hear from you or some of your people that take the most interest in the matter

yours most respectfully

J. P. Ruggles

Abram S. Hewitt Esq.

Dear Sir,

Mr Ruggles tells me that he has had some correspondence with you about his plan of making a collection of the elements of machinery. I have been much interested in this project ever since Mr Ruggles first broached it five or six years ago, and I take the liberty of writing to you about it in the hope that by the cooperation of several Institutes or Schools the plan may be more fully carried out and made more widely useful than was at first imagined. I have seen the Darmstadt models. A part of them are of somewhat the same nature as those which Mr. Ruggles proposes to build; but the great majority are models of

machines or implements. You will doubtless agree with me that American models are to be preferred to German, and new models to those of twenty or even fifteen years ago. The question is how to get the American models designed and made. This is the point on which I want to speak. Mr Ruggles is a practical inventor and constructor of machinery who has made himself independent by his inventions. You have perhaps heard of the Ruggles Press or the Ruggles Hand-stamp. He is thoroughly acquainted with American machinery in all departments, and has a quick eye and clear judgment about mechanical problems. He has acquired this knowledge and power, not from books, but by long experience in the shop and much practice in inventing. He is well known to scientific men here, and

is a member of our Academy. He was appointed Curator of the Museum of the Institute of Technology four or five years ago; but the Institute has heretofore had no money to appropriate to its Museum, and Mr Ruggles has had to wait. Now however there is a strong probability that money will be appropriated to this object, and the cooperation of the Cooper Institute would be very timely and acceptable to Mr. Ruggles. The most obvious, though not the only plan is to start a small shop with a few good workmen under Mr Ruggles's charge. If several sets of models were made at once, each set would be much cheaper than a single one could be. Moreover the work of collecting sketches or descriptions of elements not generally known would be facilitated if the two institutions combined

to do it. It should be said that Mr Ruggles wants no pay or other consideration. He would give his time and inventive power to the work. I am convinced that he would produce a unique and admirable collection of elements, greatly superior to anything which can be bought abroad, and thoroughly American in conception and execution.

Hoping that you will take an effective interest in this very promising enterprise, I am

Very Truly Yours
Charles W. Eliot
Prof. of Metallurgy.

Institute of Technology,
6 Apr. '69. Boston.

Chas. W. Eliot Esq
Prof. of Metallurgy
Institute of Technology
Boston Mass

7/ ~~Fr~~ Robert to Mrs Rogers. 115

MASS. INSTITUTE OF TECHNOLOGY.

Boston, Feb 9th 1869

~~Phil.~~

Dear Mrs Rogers:

I was delighted to learn from your last of the President's great & positive gain in health; & I can well imagine the joy you must all experience after the many long days of anxiety.

Our examinations are all over & the records made up - which are upon the whole quite satisfactory. We lose 4 or 5 of the 1st year, fewer by half than last year.

The balance of the class is good material, & the upper three classes

have done unusually well.
The Prize drill went off
finely - but of this I sup-
pose you have had a
full account from Miss
Cushing who told me
that she would report
to you.

The diplomas have
not come quite as soon
as I expected. The
engraver was delayed
two weeks by an unex-
pected change of shop.
We shall get them this
week & send to Mr
Rogers at once. I
am glad that the
graduates are to
have the satisfaction
of his signature to
the diploma -

Every thing is going
on well so far as I
can judge -

The Lowell courses are
all nearly closed.
Mr Lowell has paid
the $3000 & those
who have done the
work are enjoying
themself.

The weather is delight-
ful here, & I hope for
Mr Rogers's sake it is
also in Phil -

You can not know
how much I want
to see him. Tell Prest Rogers
it will be one of the
memorable days in
my life's calendar
when I take him
by the hand again.
All the Faculty are
delighted to hear of his

rapid improvement —
Mr Watson said it took
the Phil Physicians to find
that the disease is
"Institute on the Brain"
When you can do so
please let me know
how the President
is doing —
Mrs R send her
love. We are all well.
Give my best love
to the President & believe
me ever
devotedly yours
J. D. Runkle.

Regards to Dr Rogers —

2

116

MASS. INSTITUTE OF TECHNOLOGY.

Boston, Apr 8 1869.

Answered April 12.

Dear Mrs Rogers—

The diplomas came safely to hand, & I was glad to see the familiar hand-writing without a trace of nervousness, or anything to indicate the illness of the past few months.

The weather is becoming settled & spring-like, & I trust Mr Rogers is experiencing the good effects of these balmy days. So far as I can judge Institute matters are going on well. The Agricultural bill, & Worcester School bills for aid

($50.000 each) have passed the house, & the Worcester bill came up in the Senate yesterday, but did not reach a vote. If these bills go through the Senate our friends feel quite sanguine that they can carry us through. I send you a copy of our memorial; & will also send you a copy of the report of the Committee as soon as made. I have written the report & put into the hands of the Chairman of the Com. to use in whole or in part, just as they choose.

Nothing is likely to come of City Cooperation for the present. We are gradually getting our orders off for the Models in the Engineering departments.

The great building for the Musical Festival is rapidly going up, on St James Square, just beyond us, & is drawing thousands of people in this direction. The frame (500 ft × 300 ft.) is already up, & the roof will begin to go on in a few days. It will be done before June 15 without doubt; & then look out for a <u>big noise</u>.

The Overseers met yesterday, but did reach a

vote. No opposition was developed, & Prof E will be confirmed without doubt. It will be a loss to us; but it will also be a gain to have a President at Har. who believes that the mission of the two institutions is distinct, & that there should be no jealousy, or rivalry between them. We shall close up this year all right with the aid he will give us, & it may be that we can do the work well by using our own graduates, & for the present at least, cut down the expense of the Chemical department somewhat. At any rate the question will not press for the present. Give my best love to the Pres.

& believe me ever cordially his & yours. A D Russell

All well at home.

3)

117

MASS. INSTITUTE OF TECHNOLOGY.

Phila:

Boston, April 24 1869.

Dear Mrs Rogers-

I have been trying for some days to get a spare hour to answer your last kind letter. Saturday is my day for bringing up arrears, so that I can begin a new week even, & not feel that I am carrying an extra load both on my back and conscience.

You may not have heard that Prof Eliot's nomination was referred back to the corporation, which means rejection. I do not think that the corporation will recede, & the chances are in favor of his confirmation next time.

Every one was more surprised at this result than they were at the nomination. The imperturbable Eliot is somewhat taken down by this rebuff.

The objections raised, so far as I can learn, were that he is a College & not an Universal man; that he is a liberal in religion; that he is not sympathetic; that he is too young; that he is opposed by the Peirce & Gibbs wing of the faculty &c.

We are all getting on well. Pickering sent word yesterday that he did not feel quite well, & should stay at home a day or so. I am more & more impressed with the great treasure we have in Pirsson. He has drawn up in quite full detail, a Plan for the Physical Laboratory, which I will send you before long. I have had it put into type in order the better to submit it to the consideration of a few persons for judgement & advice. Pickering is very anxious to be ready by Oct next to instruct the 3d year's class by Laboratory work, & if our experience of one year shall be favorable as I feel it must be, we can then gradually enlarge our facilities, & take in the lower classes. I am convinced that

in time we shall revolutionize the instruction in Physics just as has been done in Chemistry.
I find that Cornell Univ. Catalogue states that a Physical Laboratory is in early contemplation; and I also learned that Gibbs intends to open one in Cambridge. Now you know that this idea belongs to our dear President, and was one of the prominent features of his plan of the School of the Inst; & I can not endure the idea of some other School first putting the idea into execution.
I know, if he were here, he would encourage Pickering as I am doing.
We are now designing the tables & finding what apparatus we still need to

[April 29, 1868]

2 (118)

MASS. INSTITUTE OF TECHNOLOGY.

Boston, ... 1869.

over a good course of experimentation. As soon as these questions are settled, & we see our way clearly, we may print a short supplement to our 4th annual catalogue, just as we did to the third, to announce the Architectural course.

I am sorry to tell, what I presume you will be prepared to hear, that our bill for aid from the State has failed with the many others of the same class. The Com. reported in our favor, giving us 30,000 provided we would raise a like sum, which our friends thought we could do.

All the applications were refused simply on the ground that the State tax is already very large, & burdensome to the people.
I am not discouraged by this failure. We shall find some way to meet the coming year, & I am certain that a Kind Providence will watch over us in the future, as in the past.
If we reach 200 students next year, as I hope we may, we shall be able to meet current expenses; although they may exceed those of this year.
The President & yourself are both very kind to think of my health. I am very tired & anxious for the vacation

[April 24, 1868] 3 (119)

Tell the President that Baker, Larson, Edmands, Nichols, Libbets and Whitaker will be candidates for graduation, & that I see no reason why they will not pass.

Bowditch has decided to remain another year, & will probably not apply, although I understand he thinks he might be able to pass in the Depart. of Science & Literature.

Gulliver and Saltmarsh have dropped too many of their studies to pass without making them up, which they may decide to do.

I suppose that the examinations of the graduating class will begin on, or before, the middle of May.

I intend to give all the classes time, and not overwork them.

Our dear Kittie is just getting up from the scarlet fever – She has had it lightly, & we hope it will leave no ill effects. Our anxiety is now about our chubby boy. A few days more will settle whether is to have it now. We have kept him out of Kittie's room, but it will be a wonder if he escapes. Prof Rockwell & wife, & also Prof Watson, think seriously of going abroad this vacation. Mr Ross & his son sail early in June. Dr Knueland did think of going, but has given up the idea –

My wife joins me in best love to yourself & Mrs Rogers. I was glad to hear this morning that you have secured a house at Newport for the summer. Prof Eliot is looking for a home for the summer, & asked me about your house at Lunenburg, which I could heartily recommend to him. I am afraid he will think it too large for his family. I am sorry that I could not have filled these sheets with more cheering news – I have done all I could to make it better; & at any rate nothing has been lost at the State House if nothing has been gained.

I trust that this warm weather is proving beneficial to the President's health, preparing him for his journey to Newport, where he will drink in from the sea-breezes copious draughts of health and strength. I have one consolation in sending you this letter, & that is, that you will take as much time as you like to read it. Give my best love to the President, & tell him that I am looking forward with the greatest anticipations to loafings on the beach with him this summer. I am going to take a big rest & want him to help me.

Kindest regards to Mr Rogers.

Ever yours devotedly
S. D. Runkle

4)

(120)

MASS. INSTITUTE OF TECHNOLOGY.

Boston, April 28 1869.

My dear Mrs. Rogers:

Your very welcome letter was received this morning, giving such cheering news from our beloved President, and with the proof of his improvement as evinced by his letter to Mr. Thayer. It seems that the money had been already paid by Mr. Thayer to the Treasurer, for the pupils whose names I sent you; but I sent the note to Mr. Thayer, knowing that he would like to see the familiar handwriting of the President, and judge how much better he must have grown.

Disappointment is our lot in this world; I continually see the truth of the old adage "l'homme propose, et dieu dispose".

Our petition for $50.000 utterly failed in the House; it is said, chiefly from

the attacks of Boston members, notably Mr. Jewett and Mr. Avery Plumer, both members of the Society of Arts - "et tu, Brute", which may freely be translated, "and you, ye Brutes."

The money, therefore, not forthcoming, my European trip fails, as I had expected to purchase with a portion of the money some models of Auzoux, necessary for the department of Natural History and Physiology. And here again I find that "whatever is, is right", as I think very much of "Proverbial Philosophy", though not of Mr. Tupper's. If I went abroad, I should leave my family, now, without any one to look up to in case of domestic or other calamity, as my brothers-in-law, both in Europe, will not return till August, though they were expected in May. So I am quite content not to go this year, and perhaps may go next year, uninvumbered. Besides, I think, it may be of special advantage to the Institute this year for me to be at my post, as crowds of citizens and strangers will go daily in front of our building, and many will enter, and examine, and ask questions. The "Peace Jubilee" will advertise us extensively, and I wish to be on hand.

I fear Prof. Eliot will not attain the position of President of Harvard; the matter was referred back by the Overseers to the Corporation, which many think equivalent to a request for a new candidate, and consequently the rejection of Mr. Eliot. I understand that his chief defects were: Youth, liberal theological opinions, aristocratic Boston connections, and similar disqualifications.

The spring in Philadelphia must be delightful, and highly favorable for the President's restoration. I

am very glad that you are to pass the summer at a distance from a gay watering place, as I think perfect quiet of mind is the one thing necessary to restore to us our President.

The prospects for the next year, judging from inquiries and demands for catalogues, are good. Mr. E. B. Bigelow has given $1000 for the purchase of models in Prof. Watson's department, & probably more will soon be subscribed for the purpose. Mr. & Mrs. Rockwell sail for Europe June 5; I think Prof. Watson also will go.

I showed your letter to Prof. Runkle, who was, as you may believe, delighted to hear of the President's good condition. Hoping that he will surely and rapidly improve, and perhaps be with us in the Autumn, and with my love to him, I am yours truly S. Kneeland

5

X

Commonwealth of Massachusetts.

Senate Chamber,

Boston, May 27 1869

Dear Sir,

The following order has been sent to the Committee on Claims

"That the Com. on Claims be requested to enquire if the Commissioner and principal agent appointed by the State to attend the international exhibition, at Paris in 1867 have made their final reports & settled all claims growing out of the connection

which the State had with said exhibition; and also if all moneys appropriated by the State and advanced to said Commissioner and principal agent have been accounted for by said Commissioner & principal agent."

Will you have the kindness to communicate to the Committee any information you may have on the subject on or before Tuesday next?

Yrs &c
H H Coolidge
Chairman

Prof. Wm. B. Rogers

May 28 1869

My dear Mrs Rogers —

I would not trouble the Prof about this matter; but if you know the facts desired & will send them I will send them to the Comm: or you can write direct to the Chairman —

Love to all

Ever Yours
J. D. Runkle

Held an interesting annual meeting last eve. The Prof's letter was received with great enthusiasm —

Cambridge May 27 1869

My dear Sir;

I have the pleasure to inform you that you were reelected the Corresponding Secretary of the American Academy at its annual meeting on Tuesday.

Inclosed are certain notification papers which require your signature. Please return them to Dr Francis Dana at the Hall.

Very truly yours
Chauncey Wright

Prof. William B. Rogers

Newport R. I.

6)

MASS. INSTITUTE OF TECHNOLOGY.

Boston, May 27 1869.

Newport.

Dear Mrs Rogers—

The Annual meeting of the Academy was held on Lunday last, when the Prof. was selected Corresponding Secretary—

If you think that he will never desire to resume this duties a letter declination had better be written, that the place may be filled at the adjourned meeting. Business is accumulating and some one must attend to it. Best love to all.

Ever yours
A. D. Rundle.

7)

Cambridge May 30 '69

Newport.

My dear Mrs Rogers,

My work for the year is over and I want to write a little account of myself and my doings such as you can show to Mr Rogers at any time when it would interest and not fatigue him to read it. Out of sight he is not out of mind with any of us and I do not feel as if my duties were quite over till I had made my report to my President. I am the more interested in doing it because I have been taking the responsibility in the management of my department of departing from many time-honored traditions and have been compelled by the novelty of my position to try experiments

partly because I had not fully worked out my plan. So I waited patiently doing things better as I got more experience, and observing with great satisfaction that the best fellows were getting more and more interested and attentive in proportion as I worked with greater freedom and confidence. At this examination I ventured to ask the older classes to give an opinion and also to show me all they had done in the way of note-taking as well as themes, and the result has surprised me. They bring me blank-books one G.S. pays another $20 another three volumes and the themes of the third class are many of them nearly and thoughtful discussions of important subjects. Cabot (3d class) writes

homeliness, which nobody suspects as I do, I think he shows
Europe & Cary Thurston rich. He has
work to write accounts of the assault
last Friday & Quinton's "the
Saint's Rest" says, and are
Cannot always tell what kind
of a book we are to have.
My dearest have been wis-
hing enough to be at the exercises
since we have seen more
encouraged. I feel cheerful
a little as I think of the young men
in Virginia than I anticipate.
Oh, Papa, it is a great relief to
feel I shall shrink and they
should understand and
I dare that from of the kind fellows
have the best faith in me. I
know that I am happy because
they do not feel disappointed
that I am coming home at once

I used to think that the larger part of the class were not very much interested in the subjects that you lecture on but on a closer inquiry of quite a number of the class I find that I was entirely mistaken. The class I think would sooner have any one of four or five different branches taught in the Institute than the English Complete writer. I suppose I shall like Political Economy well enough next year but I hope you will not discontinue your history and your comments on the political affairs of Europe and America. This class voted almost unanimously for an extra hour with me next year if the Faculty would grant it, which they have done. I find much the same spirit in

[May 30, 1869]

the other classes.

You will acquit me I know of vanity and egotism in all this. Nobody knows better than I how imperfect it has all been at the best, and I have had a great deal too much to do to be able to do it thoroughly and as it should be done. I am of necessity Professor not so much of English Literature as of English Things-in-General. But I have gained my capital point. I have gone a great way in securing the interest and the confidence of the great body of the students, and have not been obliged to fall back upon any cut-and-dried professorial ways, but have carried out my own idea of how to address them, follow in a way to do them some real good. I send you an

unpatch examination-paper drawn from the MS. record of my lectures. To have printed the whole would have made a stout pamphlet but I have elaborated the history a little in answer to many calls to tell them what to read. I am afraid it will be hardly intelligible to any but the students, so many things are mentioned merely as reminders. I decline to make "courses of reading." I tell them I would as soon make courses of dinners for them.

In place of Mr Frank Mr Bocher and I are looking for some assistant who understands modern Comparative Philology and can help both of us. My friend Prof Whitney of Yale has mentioned such a man as one of our Americans who has studied both here and in Germany. I have not yet seen him.

Dept of Education has promised the Commissioner of Indian Affairs to give a course of lectures on the Indian languages, and he will come with Prof. Brinton, Prof Hale & Prof Lepsius. Dr Gilman is also interested. Yours ever

and don not commit us to anything.

I write of my own affairs because I know you hear of general matters from Rumble. We have reason I think to be very well satisfied with the writers' work

Of course you will have heard of Eliot's Election. I think he has a fair prospect of success and will be more in place there than with us. He is a good organizer and a good worker and will put more life into the old machine. But I don't believe he will organize a revolution and I am not very sanguine about putting new wine into old bottles.

Give my affectionate regards to Mrs Rogers and believe me yours also with sincere regard

W. R. Atkinson

8)

J. D. Runkle to Mrs. Rogers.

(121)

MASS. INSTITUTE OF TECHNOLOGY.

Boston, June 6 1869.

Newport

My dear Mrs Rogers –

You can hardly realize the sense of relief I feel this afternoon. This morning the last faculty meeting of the session was held, and all the work of the past year together with the admission examinations are settled. There were six applicants for graduation, and four of them passed: viz, Whitaker, Edmands, Nichols and Larson. Baker & Libbetts not. In the case of Libbetts I think the result was just; but most

unjust in the case of Baker. That hateful prejudice which gave us so much trouble at the last graduation, this time carried the day - and if the President were here I should decidedly advise him to carry the matter before the Gov. and get Baker his degree.

There were 33 applicants for the new class, 30 of whom passed. This is quite as many as I expected, from the fact that this examination is some six weeks before the close of the High Schools; and teachers wish to send their boys as well prepared as possible.

Tell Dr Rogers that I want to see him - I suppose it is out of the question for the President to talk over Institute matters; but I want to see some one to compare notes with & get advice.

I know that it will not answer for me to see him at your house; but I will meet him any day he will name at some House at Newport.

There is an Academy meeting to-night, when

I will attend to Mr Rogers resignation.

There are many more things I want to say, but not now.

We are all well.

Give my best love to the President & tell him that I hope the sea-air is doing him all possible good. With love to all, I am as

Ever Yours
J. D. Runkle

Prize drill went off finely

8'

122

MASS. INSTITUTE OF TECHNOLOGY.

Boston, June 12 1869.

Newport.

My dear Mrs Rogers-

Yours of the 11th is at hand. I know that it would not answer for me to see the President, and as ardently as I desire it, I trust that you will be over careful in allowing me or any one else to disturb him. One of our students, Hanschoff, of Bristol whose brother makes the famous yachts wants to call at Newport and take the President on a short cruise. I told him that I would notify you of his wish, & as soon as the Pres-

ident is able I would write him. This brother is blind, & yet is one of the best designers and workmen. I have not written you about the Physical Laboratory, because I knew that this was one of the things which should not be brought to Mr Rogers attention. I have had two motives in taking the step now. First, other Institutions are moving in the matter, & I heard privately that Prof Gibbs intends to attempt something of the kind soon; and second, Pickering had became deeply interested in it, and it would, in my opinion, have been unwise, to have discouraged him, when the success of the Laboratory depends so much upon him.

The idea belongs to the President, & we ought to be the first to put it into execution —

The Gov., at the Annual Meeting, re-elected me to the place I now hold, for the Coming year, or until the President wishes to assume his duties.

I am happy to say, that so far as I know, every member of the Gov. has treated me with all confidence, & feels entirely satisfied with what I have done during the year.

they have only followed the example set them by the President, to whom kindness & confidence I am indebted for the distinguished post I hold. I am very glad that I shall have an opportunity to discuss the whole subject of the coming year with Dr Rogers. He will be able to judge to what extent I am carrying out the policy of the President.

Give my best love to him & believe me

Ever yours
J. D. Rumkle.

Judge Poindexter is in Europe

I explained the matter & gave in the President's resignation.

N. H. Massie, Presd't. A. P. Abell, Vice Presd't. B. C. Flannagan, Cashier.

Charlottesville National Bank.

Charlottesville, Va., June 12 1869

Prof W. B. Rogers

Dear Sir

I hand you under cover duplicate deeds which will need no explanation, as you have doubtless been informed of your appointment as Trustee for the purposes mentioned.

Please acknowledge before a Notary Public, that being necessary under our laws in order to be admitted to record.

When you have completed the signature, you will be kind enough to return the papers to Rev. R. W. Manly, Supt. Education, Richmond, Va.

Very Respectfully

A. P. Abell

June 12 '69 (X)

8"

123

Mass. Institute of Technology.

Boston, June 25, 1869

Newport

Dear Mrs Rogers.

I hope the Prof continues to feel the good effects of the sea-breezes of New Port. It is some time since I have heard but I take it for granted that no news is good news. I have not yet heard from Dr Rogers, & suppose that he did not get to the Jubilee. On Wednesday next we give up our house in Brookline (lease expired) & go into the country, Oxford, Mass.

Oxford is near Worcester, & the family we know well. I shall be able to get down during the summer as often as is necessary. Kneeland intends to remain here, & one or the other will keep close watch of matters.

The Scientific Association will meet in Salem in August, & we have arranged to have them visit this building during the session.

I shall be glad if you can drop me a line telling me how the Prof is doing, before next Wednesday, for I shall not be able to have at all happy without hearing from him.

I need not tell you how much I want to see him — but know too well that it might be the very worst thing which could be done.

Give my best love to him & all the family. Tell him that I took my first rest yesterday with wife & babies on Chelsea Beach. Dr J. H. Amesby of Albany has just paid us a visit, &

was delighted. He says he saw nothing to compare in his trip abroad.

Our Mechanical Engineers are spending their summer in the Machine Shop of the Navy Yard, by the kind permission of Com Rogers. A splendid opportunity!!

Ever

Yours devotedly

J. D. Runkle.

10)

125

MASS. INSTITUTE OF TECHNOLOGY.

Oxford

~~Boston~~, July 4 1869.

Newport

Dear Mrs Rogers.

I was very glad to get your letter just before leaving Boston, & learning that the President is still gaining ground. May he continue to do so more and more rapidly. If I could only have one hour conference in regard to plans for the coming year I should be satisfied — But as this cannot be, I must do what I think he would under the same circumstances. You know that it is often fatal to throw away an opportunity; & I feel that just such a case has arisen. You already know that from a pier

on the top of our building a large number of Coast Survey positions are visible, which enables us to connect our buildings in their triangulation. We also have a base-line apparatus, which enables us to work from our own base to lines determined by the Coast Survey. This gives our students the problem of triangulation in its complete form, and it only remains to work into our course as completely the problems of "Field Topography" and "Physical Hydrography".

We shall then have, as a part of our Engineering Course all the problems of the Coast Survey. It so happens that two Coast Survey Officers are now stationed in Boston, Mr Whiting, the Chief Topographer, and Mr Mitchell the Chief Hydrographer of the Coast Survey. It occurred to me that if we could get these gentlemen to give the field instruction to our engineers in these subjects, our facilities would be inappreciable; and besides, it would put all the best instruments of the Survey at our command without expense. After giving the matter all the attention I could, & becoming more & more impressed with the importance of the subject, I wrote to Prof Peirce, the Supt. who consented that Messrs Whiting & Mitchell could take positions in the Inst. & do this work for us, provided no salaries were attach

ed to the positions. Whiting & Mitchell are delighted with the idea, & I am sure that our facilities in the department of Engineering will be unsurpassed. These gentlemen have an experience in their respective departments to be found nowhere else.
I have neither time nor space to give you in full the importance of this step. Not only Prof Peirce, but W. & M. are looking forward to us for the proper supply of trained young men for Coast Survey work; and it will open all branches of the survey to our students during their long vacations. This is one of the opportunities, I have not dared to throw away. It puts so much at our disposal at little or no expense. I feel that the President will sustain me.

5

[July 4, 1869]

126

MASS. INSTITUTE OF TECHNOLOGY.

Boston, 1869.

There is another important matter. You know that our students in Mechanical Engineering get nothing in the form of shop work, or shop experience with us. Last spring at the Academy I met Commodore Rogers, & the idea occurred to me that perhaps, in some way our students in this department might gain admission to the Machine Shop of the Navy Yard during their long summer vacations as volunteers. I suggested the idea to the Commodore, who said it would give him the greatest pleasure to issue orders in favor of any students I should ~~him~~ send him. Now Mr Hall & three of our students in Mec Eng. are at work in

the yard with every advantage that that great shop can offer them. It virtually gives the Institute, without cost, a shop which it could not supply without a mint of money; and if the students do right, as I know they will, all future classes will have the same opportunity. I know the President will fully appreciate this step. I shall ask the Gov at its next meeting to take proper notice of this act of Commodore Rogers.

You speak of inviting the Assn to hold its next meeting in our building. It would be well to do so, although it is not likely that it will meet so far East so soon again. I shall attend & will submit any invitation the President may send.

[July 4, 1869]

127

The Gov. authorized me to ask the A.A.S. to visit our building this summer; but I wish the President would write a short note communicating the action of the Gov. & at the same time offer our building for any future meeting in Boston. Prof Eliot's resignation took place July 1. Both he, Storer & Warren, agree that Mr Ordway, in Metallurgy & Industrial Chemistry, will be the best appointment we can make. Ordway will take this subject at a salary of $1000. Richards & Nichols will remain as Assistants in the Chemical department. In this way the expense of the department will not be increased, & Prof Storer will be satisfied, which is a great point, as the President

will see. But my dear Mrs Rogers, do not bring all these things to the attention of the President. They are my sleeping as well as waking thoughts, & I know that however much he might agree and sympathize with me in them, they would be far too exciting. His approbation is all the reward I ask; & at any rate he will always know, that in all I do, I have but one end, the good of the Best, in view.

I was anxious to talk these matters over with Dr Rogers; but I could delay no longer.

I am one of a Committee to report on the condition of the Litchfield Obs. of Hamilton Coll. Clinton, N.Y. where I must be on the 12 & 13th. It have a delightful boarding place.

Mrs Rogers me in her to all. Tell the Dr to give him my best wishes & love

Fort Monroe Va July 1. 1869.

Brevet Maj Genl A.A. Humphreys.
Chief of Engineers
Washington D.C.

Sir.

I forward by Adams & Co's express today to your address, a small box containing specimens of clay and fossil remains taken from the Artesian Well at this place, at depths from 558 to 590 feet below the surface of the parade of Fort Monroe. The compartments in the box are numbered from 1 to 6 inclusive:

1 Contains a light spongy clay taken from the well on the 19 June 1869, at a depth of 558 feet.

2 Contains two pieces of bone, supposed to be a portion of the vertebra of a black fish, or right whale. These specimens were taken from the well on the 25 of June at a depth of from

570 to 574 feet. The bone was no doubt broken up by the auger, and portions of it forced into the clay outside of the tubing.

3 Contains concretions of sand, marl and shells, taken from the well on the 25 of June, at a depth of from 570 to 577 feet

5 Contains borings from the well at a depth of 583 feet, removed on the 29th of June

4 Contains borings from the well at a depth of 590 feet, removed on the 30th of June

6 Contains sand &c, washed from borings from the well, at a depth of 590 feet, removed on the 30th of June. This residuum is about 50 per cent of the mass. From this washing was obtained specimens of sharks-teeth & petrified wood, contained in a small box in compartment No 6.

× × × ×

I have the honor to be

Very respectfully
Your obedt Servant
(Sgd) Henry Brewerton
Col & Bvt Brig Genl U.S.A.

June 1. 1869.

Genl. Humphreys.
(Beverton)

Fort Monroe, Va. July 12 1869.

Bvt. Maj. Gen. A.A. Humphreys
Chief of Engineers
Washington, D.C.

Sir,

I forward by Adams & Co's Express to day to your address, a small box containing specimens of clay and fossil remains taken from the Artesian Well at this place, at depths from 558 to 590 feet below the surface of the parade of Fort Monroe, Va. The compartments in the box are numbered from 1 to 6 inclusive. 1 Contains a light spongy clay, taken from the well on the 19th of June 1869, at a depth of 558 feet. 2 Contains 2 pieces of bone, supposed to be a portion of the vertebra of a black fish, or right whale. These specimens were taken from the well on the 25 of June at a depth of from 570 to 574 feet. The bone was no doubt broken up by the auger, and portions of it forced into the clay outside of the tubing. 3 Contains concretions of sand, marl & shells, taken from the well on the 25 of June, at a depth of from 570 to 577 feet

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6. Contains sand &c, washed from borings from the well, at a depth of 590 feet, removed on the 30th of June. This residum is about 50 per cent of the mass. From this washing was obtained specimens of sharks-teeth & petrified wood, contained in a small box in compartment No 6.

This morning the 4½ tubing moved downwards seven feet by its own weight, and that of the rods within it, to which the auger is attached. The pipes have now reached a depth of 593 feet below the surface of the parade.

I have the honor to be
Very respectfully
Your obd't servt
Henry Brewerton
Col. & Bvt Brig Gen U.S.A.

(Signed)

July 1: 1869

10'

128

Mass. Institute of Technology.

Boston, July 8, 1869

My dear Mrs Rogers-

I saw Mr Endicott a day or so ago, who told me that he thought that if the President would intimate to Mr Hayes that the Institute could use additional funds to advantage, he would respond. Last year when he gave Mr E. his check for $25.000 he told him that he should have more for us this

year. I think he might
become interested in
the Physical Laboratory,
& perhaps give suffi-
cient to put it upon
a firm foundation.
Also, if the President
would drop a note
to Mr Beecher to have
him see Mr Peabody
in our behalf, it might
result in something.
Hope the President is
still improving — We
expect to have Oxford
tomorrow for a trip of
couple of weeks in
New York. After that
I shall get to Boston
quite often —
Letters sent to me
here will be promptly
forwarded; & I shall
hope to hear as often
as you can find
time to write.
Give my best love to
the President, & tell
him that Pickering
has received a letter
of high commendation
of his Laboratory plan,
from Prof Tyndall.

So far as Mr Thayer is concerned, I feel quite strongly that he will initiate a movement in our favor if the President will suggest it to him.

With best wishes to all I am

Ever yours
O. D. Rentle

P.S. I send the rough letter of resignation.

Office of the Chief of Engineers,

Washington, D. C., July 8th, 1869.

Prof^r William B. Rogers,
Lunenburg, Mass:

Sir:

During the two years that have elapsed since your note of 25th May 1867 replying to my enquiries respecting the probable or conjectural vertical positions of water bearing strata at Fort Monroe, Va: the borings in progress there have been continued, with perhaps about the usual share of difficulty, until we have now attained a depth of nearly 600 feet. A letter from General Brewerton, the Engineer Officer in charge of the work, has just reached me, explaining the present condition of the work, and transmitting a series of specimens, with fossils, of the material recently passed through by the augurs. I enclose herewith a copy of this letter, which I hope may interest you, and shall be glad to send you for

examination, the box of specimens in question. I shall esteem your opinion - derived from these indications - of the present condition of the undertaking, of much value; and if you desire a full series of the borings it will gratify me to have them prepared, and send them to you.

I am Sir.

Very respectfully
Your Obt Servt

1-3-23

A. A. Humphreys
Brig Genl & Chief of Engrs

July 1869

(Humphries)

Manchester (pro. temp.)
12 July 1869

President Rogers

My dear Sir,

I have not written to you before, as I have wanted to, because we have all felt that the less your quiet was disturbed the better. You will believe that I value very much your sympathy and good wishes. The assurance which you

I trust that you will
the institute
reserve
without
call upon
you at
my
Very respectfully
Yours affectionately
Charles W. Eliot

note gives of your restoration to health is delightful. For the sake of the Institute – for the sake of American education – I hope you will continue to practise the utmost prudence.

Please do not let the Paris business weigh on your mind for a moment. What I wrote is already too old to be printed in its present form. The whole would have to be recast.

I think that Storer would say the same of his part. And now, with my new duties, I don't know how I could find time to recast it, if I wanted to. Why should not that business lie forever quiet? If ever the Institute prints a journal, perhaps Storer & I may find the material for some articles in our old manuscript of 1867-68 ..... I thank you very much for your kind words

about my cooperation at the Institute; but I know perfectly well that I received from the School much more than I ever gave. Your example and precepts, your wisdom and wide experience have not been wholly lost upon me. So far as in me lies, I mean to see that the Institute enjoys the field it has so honorably won, without competition or duplication of any sort at Cambridge. If my position ever enable me to be of any service

Manchester (pro. temp.)
12 July 1869

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If my position can enable me

to be of any service to you or to the Institute I trust that you will call upon me without reserve.

Very respectfully & affectionately Yours.

Charles W. Eliot.

copy.

Manchester (pro. temp.)
12 July 1869

President Rogers.

My dear Sir.

I have not written to you before, as I have wanted to, because we have all felt that the less your quiet was disturbed the better. You will believe that I value very much your sympathy and good wishes. The assurance which your note gives of your restoration to health is delightful. For the sake of the Institute - for the sake of American education - I hope you will

continue to practice the utmost prudence.

Please do not let the Paris business weigh on your mind for a moment. What I wrote is already too old to be printed in its present form. The whole would have to be recast. I think that Stoker would say the same of his part. But now, with my new duties, I dont know how I could find time to recast it, if I wanted to. Why should not that business lie forever quiet? If ever the Institute prints a journal, perhaps Stoker and I may find the material for some articles in our old manuscripts of 1867 – 68.....

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If my position can enable me

to be of any service to you or to the Institute I trust that you will call upon me without reserve.

Very respectfully & affectionately yours.

Charles W. Eliot.

copy.

11)

132 Tremont St
Boston
Aug 27 1869

My dear Prof. Rogers

Absence from the city has prevented me from answering your kind note of the 16th inst. On referring to my memorandum book I find that I have received from you, on account of Paris Exposition

on May 17 1867 $437.96 (gold)
" Aug. 7 1867 (£60) $292.80 "

Sum (received) 730.76

I trust you have
ere this entirely
recovered from
the dysentery which
your letter speaks.

I have great faith
in Ordway. He is
sound, reliable and
learned. In the mat-
ter of practical
knowledge, no school
in the country has
a teacher to be
compared with
him.

Please give my
kindest regards
to Mrs. Rogers
& believe me
yours truly
Frank H. Stowe

132 Tremont St
Boston
July 17 1869

Newport

My dear Sir

I am glad to be assured — through the reception of your note — of your improved health and spirits that [illegible] Every that your mind seems [illegible] the question of ex-position [illegible]

Would it not be well to dismiss that subject [illegible] as a [illegible] of [illegible] for many much

It may be con-didly that I [illegible] stomach for [illegible]

it [illegible] the matter

I wrote, after our return from Paris in 1867, was suited for that day and hour. It would be as unfit for publication today as a stale newspaper article of similar date.

Even if I had the heart (which I haven't) to recast the MS, it would have to be remembered that I have not the knowledge requisite for the task. It is not true now that I have just returned from an inspection of European methods and appliances.

The precise character and quality of MS. I am wished but I sup- it must be it's much the same condition of uselessness as my own.

As the matter presents itself to myself — as I have endeavored to depict it here — the modicum of "back pay" becomes insignificant. I beg you will dismiss it from your mind, as I have dismissed it from my own long ago.

With the kindest regards for Mrs. Rogers and best wishes for your restoration to health, I remain

Yours truly

Frank H.

Prof. Wm B. Rogers
Newport.

Rec'd by Prof. Hitt &
Prof. Olser —

Aug. 1869

(1)