

NAMES ON ATTICS OF PAVILIONS

Thales, Pythagoras, Euclid,)	
Apollonius, Hipparchus, Ptolemy,	)	Aristotle
Fourier, Helmholtz, Kelvin, Gibbs.)	
Tycho Brahe, Galileo, Kepler,)	
Euler, D'Alembert, Lagrange, Laplace,	)	Newton
Herschel, Adams, Hill, Poincare,)	
Democritus, Plate, Averroes,)	
Bacon, Descartes, Pascal,	)	Franklin
Napier, Davy, Regnault, Foucault.)	
Harvey, Linnaeus, Jenner,)	
Agricola, Hutton, Lyell, Dana,	)	Pasteur
De Beaumont, Suess, Bessemer.)	
Boyle, Cavendish, Priestley, Dalton,)	
Gay Lussac, Berzelius, Wohler, Liebig,	)	Lavoisier
Bunsen, Mendelejeff, Perkins, van't Hoff.)	
Gilbert, Coulomb, Volta, Oersted,)	
Ampere, Ohm, Henry, Maxwell,	)	Faraday
Morse, Siemens, Gramme, Hertz.)	
Gutenberg, Watt, Arkwright,)	
Whitney, Perkins, Fulton, Fairbairn,	)	Archimedes
Froude, Otto, De Laval, Wright.)	
Ictinus, Phidias, Vitruvius,)	
Anthemius, De Coucy, Giotto,	)	Leonardo da Vinci
Brunelleschi, Wren, Bulfinch.)	
Guericke, Torricelli, Chladni,)	
Huygens, Young, Arago, Fresnel,	)	Darwin
Daguerre, Kirchhoff, Rowland.)	
Black, Rumford, Joule, Clausius,)	
Carnot, Telford, Stephenson,	)	Copernicus
De Lesseps, Rankine, Eads.)	

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge

NAMES ON ATTICS OF PAVILIONS

Thales, Pythagoras, Euclid, Apollonius, Hipparchus, Ptolemy Fourier, Helmholtz, Kelvin, Gibbs	) ) )	Aristotle
Tycho Brahe, Galileo, Kepler, Euler, D'Alembert, LaGrange, Laplace Herschel, Adams, Hill, Poincare	) ) )	Newton
Democritus, Plato, Averroes, Bacon, Descartes, Pascal, Napier, Davy, Regnault, Foucault	) ) )	Franklin
Harvey, Linnæus, Jenner, Agricola, Hutton, Lyell, Dana De Beaumont, Suess, Bessemer.	) ) )	Pasteur
Boyle, Cavendish, Priestley, Dalton, Gay Lussac, Berzelius, Wohler, Liebig, Bunsen, Mendelejeff, Perkin, van't Hoff	) ) )	Lavoisier
Gilbert, Coulomb, Volta, Oersted, Ampere, Ohm, Henry, Maxwell, Morse, Siemens, Gramme, Hertz.	) ) )	Faraday
Gutenberg, Watt, Arkwright, Whitney, Perkins, Fulton, Fairbairn, Froude, Otto, De Laval, Wright.	) ) )	Archimedes
Ictinus, Phidias, Vitruvius, Anthemius, De Coucy, Giotto Brunelleschi, Wren, Bulfinch.	) ) )	Leonardo da Vinci
Guericke, Torricelle, Chladni, Huygens, Young, Arago, Fresnel, Daguerre, Kirchhoff, Rowland	) ) )	Darwin
Black, Rumford, Joule, Clausius, Carnot, Telford, Stephenson, De Lesseps, Rankine, Eads	) ) )	Copernicus

NAMES ON ATTICS OF PAVILIONS

<i>Apothecaries</i> Thales, Pythagoras, Euclid, Apollonius, Hipparchus, Ptolemy, Fourier, Helmholtz, Kelvin, Gibbs	)	Aristotle
Tycho Brahe, Galileo, Kepler, Euler, D'Alembert, Lagrange, Laplace, Herschel, Adams, Hill, Poincare.	)	Newton
Democritus, Plato, Averroes, Bacon, Descartes, Pascal, Papier, Davy, Regnault, Foucault.	)	Franklin
Harvey, Linnaeus, Jenner, Agricola, Hutton, Lyell, Dana, De Beaumont, Suess, Bessener.	)	Pasteur
Boyle, Cavendish, Priestley, Dalton, Gay Lussac, Berzelius, Wohler, Liebig, Bunsen, Mendelejeff, Perkin, van't Hoff.)	)	Lavoisier
Gilbert, Coulomb, Volta, Gersted, Ampere, Ohm, Henry, Maxwell, Morse, Siemens, Gramme, Hertz.	)	Faraday
Gutenberg, Watt, Arkwright, Whitney, Perkins, Fulton, Fairbairn, Froude, Otto, De Laval, Wright.	)	Archimedes
Ictinus, Phidias, Vitruvius, Anthemius, De Ceuzy, Giotto, Brunelleschi, Wren, Sulfinch.	)	Leonardo da Vinci
Guericke, Torricelli, Chladni, Huygens, Young, Arago, Fresnel, Daguerre, Kirchhoff, Rowland.	)	Darwin
Black, Rumford, Joule, Clausius, Carnot, Telford, Stephenson, De Lesseps, Rankine, Sads.)	Copernicus

547 TREMONT BLDG.
BOSTON, MASS.

Feb. 3rd 1915⁻²⁰⁴

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~~BOSTON CITY CLUB~~

Dear Mr MacLaurin

The value of a
good inscription in
an appropriate place
has been recognized
in every stage of
civilization and I
think some place may
be found on one of
our new Tech buildings,
which even though
dedicated to Science
may be graced by a
reminder of the
Greek Classics, for a
reproduction of
the inscription over
the entrance to
Plato's Academy
which you will

probably remember it
as follows: "Let no
one ignorant of
Geometry presume to
enter here". It seems
to me that a copy of
that famous in-
scription well placed
on one of ^{the} new & noble
buildings would
have a positive value
to all beholders.
It gives a stimulus to
the mind of the one
who enters & lends
dignity of thought to
the portal however
severe its beauty; it
also draws inering
in its source & makes
for culture. I hope
to see it done.

Sincerely yours
Clarna J. Ward
W. S. T. Class 1872

See Richard Maclean
Pres. W. S. T. Class 1872.

~~135~~

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Dear Mr. Ward:

I must thank you for your interesting suggestion that the famous inscription over Plato's Academy would find a fitting place on the new Technology. We shall have to consider the problem of inscriptions before very long, and I shall be glad to have your suggestion in mind.

Yours sincerely,

February 4, 1915.

Mr. Clarence S. Ward,
547 Tremont Building,
Boston, Mass.

Dear Professor Miller:

The architect wants a few inscriptions on our new buildings and it has been suggested in this connection that the panels on some of the pavilions should contain the names of men eminent in engineering or its allied sciences. I should be glad, if, after consultation with such of your colleagues in the Department of Mechanical Engineering as you deem it desirable to consult, you would supply me with a list of such names, having special reference to Mechanical Engineering and the studies fundamental thereto. Of course, names of living people must be eliminated and an effort made to select men whose reputations may be expected to survive the scrutiny of generations. It will be politic, I think, to consult Professor Marks in this connection. As the carvers are at work now, I should be glad to have your suggestions early next week, if possible.

Yours sincerely,

April 29, 1915.

Professor E. F. Miller.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

May 3, 1915.

Dear Dr. Maclaurin:

Professors Goodwin, Derr, and myself aided by Professor Hale have struggled with the problem suggested in yours of April 29th. I think we are very well agreed on a list of representative physicists for the purpose which you mention, and which I send with this. Professor Tyler called up the department mentioning this matter and asking for about fifteen names.

Referring to the accompanying list, I assume that the first two names, Archimedes and Newton, would stand in the place of greatest prominence and apart from men of lesser note. Of the other names, that of Joule might very well be chosen also by the engineers in which case, it would better go to them. If our list is too long, the names of Hertz, Ampère, and Huygens are those which we would remove, but in what order of preference I think we are all somewhat uncertain. The name of Hertz is perhaps rather too recent, but on the other hand, whatever the future may develop, there is no question that the art of radiotelegraphy is and always will be based on his researches. Between Ampère and Huygens we have all of us "wabbled" a good deal. The application of the pendulum to the clock certainly has had a great outcome, and his determination of the wave forms in Iceland spar was certainly a marvelous piece of work.

[5/3/15]

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

-2-

The former however, seems to be the chief reason for inserting the name in the list. I think the work of Ampère is too commonly forgotten by electrical engineers nowadays. All three names might very well be omitted if there is not room enough.

The name of Franklin is conspicuous by its absence and we are somewhat divided in opinion. I think we are all agreed that the only reason for inserting his name is the fact that he was an American, and that his scientific work was done at a time when there was almost no American science. How much sentiment should prevail in such a case, I can hardly say. I am inclined to agree with either side of the argument according to which is last presented.

There are various other names which we have considered some of which will probably be chosen by the departments of Chemistry, Engineering, and Mathematics.

I wish that it might be possible before the complete selection is made, to have some more general consideration so that the same grade might be secured all through.

I trust that you will use your own judgement with regard to the names which we send.

I am

Yours very sincerely,

Chas R. Croft

Archimedes

Newton

Galileo

Huygens

Fresnel

Kirchoff

Rowland

Volta

Ampère

Faraday

Henry

Kelvin

Maxwell

Hertz

Rumford

Joule

Helmholtz

Gibbs

DUGALD C. JACKSON, PROFESSOR
ARTHUR E. KENNELLY, PROFESSOR
HARRY E. CLIFFORD, PROFESSOR
COMFORT A. ADAMS, PROFESSOR
FRANK A. LAWS, PROFESSOR
R. R. LAWRENCE, ASSOCIATE PROFESSOR
HARRISON W. SMITH, ASSOCIATE PROFESSOR
WM. E. WICKENDEN, ASSISTANT PROFESSOR
CHARLES W. GREEN, ASSISTANT PROFESSOR

ELECTRICAL ENGINEERING DEPARTMENT
MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

BOSTON, May 3, 1915.

Dr. Richard C. Maclaurin, President,
Technology.

Dear Dr. Maclaurin:-

Enclosed herewith is
a list of names of eminent past scientists
and engineers.

Hoping that this will
meet your requirements, I remain,

Yours very sincerely,

A. E. Kennelly

Enclosure.

AEK:B

EMINENT SCIENTISTS AND ENGINEERS.

Ampère	Oersted
Arago	Ohm
Archimedes	Pacinotti
Armstrong	Peltier
Becquerel	Plante
Bessel	Poggendorff
Biot	Poincaré
Briggs	Poisson
Brunel	Poncelet
Bunsen	Preece
Cavendish	Prony
Clark	Pythagoras
Clausius	Rankine
Coulomb	Reis
Cuneus	Ronalds
Daniell	Rowland
D'Arsonval	Ruhmkorff
Darwin	Siemens
Davy	Stevenson
De la Rive	Stokes
Euler	Tait
Faraday	Varley
Faure	Volta
Ferraris	Watt
Fourier	Weber
Franklin	Wheatstone
Galvani	Wilde
Gauss	
Geissler	
Gilbert	
Gramme	
Guericke	
Harris	
Helmholtz	
Henry	
Hertz	
Hughes	
Huxley	
Jacobi	
Joule	
Kelvin	
Lagrange	
Laplace	
Lenz	
Mascart	
Maxwell	
Morse	
Musschenbrock	
Napier	
Newton	

DEPARTMENT OF
CHEMISTRY AND CHEMICAL ENGINEERING,
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
BOSTON.

May 3, 1915.

Dr. Richard C. Maclaurin, Pres.,
Mass. Inst. Technology.

My dear Dr. Maclaurin:

Professors Noyes, Moore and I have had a conference regarding the names of eminent chemists which might probably be included in the inscription on the new buildings. We are agreed that Lavoisier should have the place of honor as the individual representative of chemistry, on the larger panels. We suggest the following for the less conspicuous positions: Berzelius, Bunsen, Kekule', van't Hoff, Scheele, Boyle, Liebig, Gibbs, Dalton, Mendelejeff. The sequence of these names indicates approximately our estimate of the importance of the position in the history of chemical science in which the various men would be placed. In case, however, some of these names were to appear as a separate collection it might be desirable to reconsider the order. In fact, if they were to be grouped together I think we should agree that they should follow historical sequence.

We should esteem it a favor if we could know how many names are selected, and how they are to be related to the entire collection, before any actual cutting has been done, as we might possibly modify our recommendations somewhat if we knew exact details as to the use of the names.

Very truly yours,

H.P. Talbot

Dr. Falbot

- | | | | | |
|-----------------------|--------------------|---------------------|---------------------------|-----------------------|
| ✓ Ampere | Coulomb | ✓ Gay Lussac | Linnaeus | Roentgen |
| ✓ Arago | ✓ Crompton | Gibbs | Lister | ✓ Rowland |
| ✓ Archimedes | Cuvier | ✓ Gutenberg | ✓ Lyell | ✓ Rumford |
| ✓ Aristotle | ✓ Dalton | ✓ Harvey | ✓ Maxwell | Scheele |
| ✓ Arkwright | ✓ Dana | ✓ Helmholtz | ✓ Mendelejeff | ✓ Siemens |
| ✓ Bacon, Francis | Daniell | Herschel | Mercator | ✓ Smith (Adam) |
| Becquerel | ✓ Darwin | Humboldt | Michael Angelo | Stephenson |
| Bernouilli | ✓ Da Vinci | ✓ Huyghens | Mill | ✓ Tycho Brahe |
| ✓ Berzelius | ✓ Davy | Huxley | Moisson | Tyndal |
| ✓ Bessemer | ✓ Descartes | ✓ Hypparchus | ✓ Morse | Van't Hoff |
| Biot | ✓ Ericsson | ✓ Ictinus | ✓ Napier | Virchow |
| Bowditch | ✓ Euclid | ✓ Jenner | Newcomb | ✓ Volta |
| ✓ Boyle | ✓ Faraday | ✓ Joule | ✓ Newton | ✓ Watt |
| ✓ Bulfinch | ✓ Foucault | ✓ Kekule | Ohm | ✓ Wöhler |
| Bunsen | ✓ Fourier | ✓ Kelvin | ✓ Pasteur | ✓ Wren |
| ✓ Carnot | ✓ Franklin | ✓ Kepler | Poincaré | Wright |
| ✓ Cavendish | ✓ Fresnel | ✓ Kirchoff | ✓ Priestley | |
| ✓ Clausius | ✓ Fulton | ✓ Laplace | ✓ Ptolemy | |
| Cooper | ✓ Galileo | ✓ Lavoiser | ✓ Pythagoras | |
| ✓ Copernicus | ✓ Galvani | Leibnitz | ✓ Regnault | |
| ✓ Corliss | ✓ Gauss | ✓ Liebig | Ritter | |

Amperes	Gay Lussac	Linnaeus	Roentgen
Arago	Gibbs	Lister	Rowland
Archimedes	Gutenberg	Lyle	Rumford
Aristotle	Harvey	Maxwell	Schaefer
Arkwright	Hahn	Mendeleev	Siemens
Bacon, Francis	Herschel	Meyer	Smith (Adam)
Beethoven	Humboldt	Michael Angelo	Stephenson
Bernoulli	Huygens	Mill	Tycho Brahe
Berzelius	Huxley	Moisson	Tyndal
Bessemier	Hypocritas	Morse	Van't Hoff
Blot	Iotinus	Hesper	Virchow
Bowditch	Jenner	Newcomb	Voigt
Boyle	Joule	Newton	Watt
Bulfinch	Kekule	Ohm	Wohler
Bunsen	Kepler	Pastor	Wren
Carnot	Franklin	Poincare	Wright
Cavendish	Kirchoff	Priestley	
Claudian	Laplace	Ptolemy	
Cooper	Lavoisier	Pythagoras	
Copernicus	Leibnitz	Rezanoff	
Cortis	Liebig	Ritter	

Franklin 9
 Priestley 28
 Ptolemy 25
 Kepler 10
 Kirchoff 10
 Poincare 31
 Wright 24

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

DEPARTMENT OF MATHEMATICS.

May 3, 1915.

Dear President Maclaurin:

My choice for the ten first class names in the history of science would, I think, be as follows:

Archimedes	Galileo
Aristotle	Hypparchus
Copernicus	Kepler
Darwin	Lavoisier
Faraday	Newton

*See French
Hypparchus
Vitruvius
for Archimedes*

For the additional names I suggest:

Apollonius	Lagrange
Bacon (R.)	Laplace
Bell	Leibnitz
Bessemer	Liebig
Boyle	Linnaeus
Cauchy	Leonardo
Dalton	Lobatchewski
Davy	Lyell
Descartes	Maxwell
Ericsson	Michael Angelo
Euclid	Morse
Euler	Newcomb
Franklin	Pascal
Fulton	Pasteur
Galvani	Perkin
Gilbert	Plato
Gauss	Ptolemy
Gay-Lussac	Pythagoras
Green	Rowland
Hargreave	Rumford
Harvey	Stephenson
Helmholtz	Thales
Herschel	Tycho Brahe
Humboldt	Volta
Jenner	Vieta
Huyghens	Watt
Kelvin	Whitney
Kepler	Wöhler
	Wright

*Ultimate
arrangement
Chronological.
S. L. J.*

Very truly yours,

S. L. J.

Dr. Tyler

Greek - 8

✓ Apollonius 260 ^{Ac}

✓ Archimedes 287

✓ Aristotlo 384

✓ Hipparchus ^{about 200 B.C.}

✓ Ptolemy A.D. 168

✓ Pythagoras 580

✓ Plato 420 ^{Ac}

✓ Thales. 624 ^{Ac}

✓ Democritus 460

Geology - 3

1794 ✓ Lyell

✓ Suess ^{see back}

✓ Werner 1750

✓ Dana 1813

✓ de Beaumont. ^{Speyer book} ¹⁸³⁰

Architecture - 8

✓ Bramante (Michelangelo)

✓ Brunelleschi

✓ Bulfinch

✓ de Coney

✓ Ghiberti

✓ Schinus

✓ Leonardo 1452

✓ Michael Angelo

✓ Palladio

✓ Wren

→ Vitruvius 14 B.C.?

Mathematics - 14

? Cauchy

✓ d'Alembert

✓ Descartes 1596

✓ Euclid 330 ^{Ac}

✓ Euler 1707

✓ Fourier

✓ Gauss

✓ Lagrange 1736

✓ Newton 1642

✓ Napier

? Lobatchewski

? Leibnitz

✓ Laplace 1749

? Poincare

Biology - 9.

? Cuvier

1809 ✓ Darwin

1578 ✓ Harvey

✓ Huxley

✓ Jenner

? Linnaeus

✓ Lister

✓ Pasteur

✓ Virchow

Astronomy - 6

✓ Copernicus 1473

✓ Herschel 1738

✓ Hill

✓ Kepler 1571

✓ Newcomb

✓ Tycho Brahe 1546

Chemistry - 13

1774 ✓ Berzelius

1627 ✓ Boyle

1811 ✓ Bunsen

1767 ✓ Dalton

✓ Gay Lussac

✓ Kekule

1743 ✓ Lavoisier

✓ Liebig

✓ Mendelejeff

✓ Moisson

1733 ✓ Priestley

✓ Scheele

? Van't Hoff

1800 ✓ Wohler

Lat. 4	Eng. 32
Bot. 4	Amer. 15
General 4	Leid. 16
Ash 3	Parma 10
Arch 8	Stalin 5
Math 14	Geack 9
Chem 10	Other
Physics 33	Sweden 10
Equilibrium 22	
102	97

Averroes 1126-1198

Boerhaave 1668. ^{London 9} ^{Amsterdam (?)}

R. Bacon 1214
1561

[Tyler]

Engineers and Inventors - 27

Physics - 25

- ✓ Arkwright →
- ✓ Bessemer →
- ✓ ~~Bridgman~~ *Curtis* → ?
- ✓ Crompton → ?
- ✓ Eads → X
- ✓ Ericsson →
- ✓ ~~Fairbairn~~ → X
- ✓ Froude →
- ✓ Fulton →
- ✓ Goodyear → ?
- ✓ Gutenberg →
- ✓ Hargreaves → (?)
- Howe
- Macadam
- ✓ Morse →
- Nasmyth
- ✓ Newcomen → X
- ✓ Rankine → ?
- Roebbling
- X? ✓ Russell → ?
- ✓ Siemens → ~~3~~ →
- Smeaton
- ✓ Stephenson →
- Telford
- Vauban
- 1736 ✓ Watt →
- Westinghouse
- ✓ Whitney →
- Wright

- ✓ Bacon - R. *ampere 1779*
arago 1786
- 1728? ✓ Becquerel *(discovery of radioactivity)*
- ✓ Carnot
- 1781 ✓ Cavendish *Chaussure 1822*
- 1773 ✓ Davy *Daguerre 1789*
Chladni 1788
- 1791 ✓ Faraday
- 1819 ✓ Foucault
- 1706 ✓ Franklin
- 1798 ✓ Fresnel
- 1564 ✓ Galileo
- 1734 ✓ Galvani
- Gibbs *(put in)*
- 1542 ✓ Gilbert
- 1602 ✓ Guericke
- ✓ ~~Henry~~
- 1821 ✓ Helmholtz
- 1629 ✓ Huyghens *several*
- 1818 ✓ Joule *Walter*
- 1824 ✓ Kelvin *Smith*
- 1824 ✓ Kirchhoff *Averroes*
- Langley *Aristotle*
- 1831 ✓ Maxwell *? Pliny*
- 1777 ✓ Ohm *23*
- 1628 ✓ Pascal
- ✓ Regnault
- Rontgen
- ✓ Rowland
- 1752 ✓ Rumford
- 1608 ✓ Torricelli
- Stokes
- 1745 ✓ Volta
- 1773 ✓ Young *(H)*
- ? Black

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
BOSTON, MASS., U.S.A.

EDWARD F. MILLER

May 4, 1915.

Dr. R. C. Maclaurin,
President, M. I. T.

Dear Dr. Maclaurin:-

In accordance with your request of April 29th, I am handing you herewith names suggested for panels of the pavilions of the new Technology. These names have been suggested by the Faculty members of the Mechanical Engineering Department.

The names are grouped into four groups, the number of the group representing the order of rating. The names in any one group have not been placed in any particular order.

Yours very truly,

Edward F. Miller

EFM-B

Enclosure

NAMES SUGGESTED BY FACULTY MEMBERS OF COURSE II

FOR

USE ON THE PANELS OF THE PAVILIONS OF NEW TECHNOLOGY.

Group 1.

Fulton
Corliss
Ericsson
Westinghouse
Fritz
Francis
Bessemer
Wright
Franklin
Whitney
Henry
Morse
Howe
Carnot
Otto
Clausius
Joule
Regnault
Newcomen
Smeaton
Watt
Stephenson
Arkwright
Rankine
Siemens
Rumford
Rowland
Newton
Hargreaves
Kelvin
Bernoulli
Archimedes
Hero
Da Vinci
Galileo

Group 2.

Worthington
Diesel
Hirn
Papin
Euler
Coulomb
Nasmyth
Fairbairn
Whitworth
Weisbach
Bauschinger
Wohler

Group 3.

Evans
Stevens
Babcock
Roebling
Langley
de Rochas
Crompton
Jacquard
Trevithick
Woolff
Grashof
Weyrauch

Group 4.

Gutenberg
Taylor
Sellers
McCormick
Goodyear
Hodgkinson
Gordon
Barlow
Releaux
Kirkaldy

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL AND SANITARY ENGINEERING

CHARLES M. SPOFFORD
HAYWARD PROFESSOR OF CIVIL ENGINEERING

BOSTON, MASS. May 5, 1915.

Dr. Richard C. Maclaurin, President,
Massachusetts Institute of Technology,
Boston, Massachusetts.

Dear Dr. Maclaurin:

I enclose a preliminary list of scientists, engineers and others which may be of assistance in preparing a list of names for the walls of the New Technology. I have underscored the names of civil engineers and also those of scientists and inventors who have discovered principles upon which the practice of civil engineering is based, or who have developed processes used in the manufacture of materials of construction. I have, however, made no attempt to limit my list to such men. I should be glad to furnish further information concerning any of the underscored names.

In this list I have included none now living. I should suppose, however, that such men as Edison, Marconi, Bell, Goethals, and possibly others, might well be included. I believe that the names of both Edison and Bell are inscribed on the Boston Public Library.

I hope this will be of service to you,

Very truly yours,

C. M. Spofford

LIST OF PROMINENT ENGINEERS AND SCIENTISTS

Prepared by C. M. Spofford.

Ampere, André Marie	Physicist and mathematician.
<u>Archimedes</u>	Geometrician. Discovered principle of the lever, and of the screw.
Arkwright, Sir Richard	Invented cotton spinning frame.
Bacon, Francis	Philosopher, jurist, statesman. One of the chief founders of modern inductive science.
<u>Baker, Sir Benjamin</u>	Builder of dams and bridges.
<u>Bernouilli, Daniel</u>	Mathematician and physicist.
<u>Bessemer</u>	Invented Bessemer steel process.
Boyle, Robert	Chemist and natural philosopher.
Bowditch, Nathaniel	American mathematician.
<u>Brunel, Sir Marc Isambard</u>	Constructed Thames Tunnel.
Bunsen, Robert Wilhelm	German chemist.
Carnot, Nicolas Léonard Sadi	Physicist.
<u>Castigliano</u>	Applied theorem of least work to engineering problems.
Cooper, Peter	Inventor, philanthropist, manufacturer.
Copernicus	Doctor of Medicine. System of Astronomy.
Corliss, George Henry	Inventor, manufacturer, designer.
Cuvier, Georges Leopold Chretien Frederic Dayobert	- A celebrated French naturalist - the founder of the science of comparative anatomy.

✓ Davy, Sir Humphrey	Chemist.
Descartes, René	Philosopher, mathematician.
<u>Eads, James B.</u>	Bridge builder.
✓ Eriesson, John	Constructed caloric engine. Applied screw to steam navigation. Invented "Monitor."
✓ Euclid	Geometer.
✓ <u>Euler, Leonhard</u>	Mathematician. Developed Euler Column Formula.
Faraday, Michael	Physicist and chemist.
✓ Fulton, Robert	Engineer and inventor.
<u>Francis, J. B.</u>	Hydraulic engineer.
✓ Franklin, Benjamin	Philosopher, statesman, author, diplomatist.
✓ <u>Fritz, John</u>	Leader in development of the iron and steel industry in U.S.
Galileo	Physicist and astronomer.
✓ Galvani, Luigi	Physician and physicist.
✓ Gay Lussac, Joseph Louis	Chemist and physicist.
Haswell, Charles H.	Marine engineer.
Helmholtz, Herman Ludwig Ferdinand von	Physiologist and physicist.
Herschel, Sir William	Astronomer.
✓ <u>Hooke, Robert</u>	Hooke's law.
<u>Howe, Elias</u>	Inventor of the sewing machine.
Huggens, Christian	Physicist, astronomer, mathematician.
✓ Kepler, Johann	Astronomer.
Lalande, Joseph G�r�me Lefran�ais de	Astronomer.
3 Langley, Samuel Pierpont	Astronomer. First to build flying machine heavier than air which made an independent flight.

Gutenberg is an Rogers Bldg.

✓ Laplace, Pierre Simon de	Astronomer and mathematician.
Lavoisier, Antoine Lament	Chemist.
✓ Leibnitz, Baron Gottfried Wilhelm von -	Philosopher, mathematician.
✓ <u>Macadam, John London</u>	Engineer. Inventor of the system of macadamizing roads.
✓ Mariotte, Edme	Physicist.
McCormick, Cyrus Hall	Harvesting implements.
Mercator, Gerhard Kremer	Flemish geographer.
<u>Morison, George S.</u>	Bridge engineer.
✓ Morse, Samuel Finley Breese	Artist. Inventor of electric telegraph.
✓ Napier, John	Mathematician.
✓ Nasmyth, James	Engineer, astronomer. Inventor of steam hammer.
Newton, Sir Isaac	Mathematician and natural philosopher.
✓ <u>Noble, Alfred</u>	American engineer. Great tunnel builder.
✓ Ohm, Georg Simon	Physicist.
Palladio, Andrea	Architect.
Peirce, Benjamin	Mathematician and astronomer.
✓ <u>Poisson, Simeon</u>	Mathematical physicist.
✓ <u>Rankine, William John Macquorn</u>	Physicist. Mechanics applied to engineering.
✓ Regnault, Henry Victor	Chemist and physicist.
✓ <u>Ritter, George August</u>	Developed valuable methods for solving engineering structure.
✓ <u>Roebling, John Augustus</u>	Designer of suspension bridges.
<u>Rowland, Thomas Fitch</u>	Civil engineer.
✓ Rumford, Count (Benjamin Thompson)	Scientist.

<u>Siemens, Sir William</u>	Physicist, engineer, inventor of processes of steel making.
<u>Smeaton, John</u>	Civil engineer, Built Eddy-stone Lighthouse.
Stephenson, George	Perfector of the locomotive.
<u>Stephenson, Robert</u>	Engineer and bridge builder.
Taylor, Frederick W.	Inventor of high speed tools revolutionizing machine shop practice.
<u>Telford, Thomas</u>	Civil engineer, road and bridge builder.
Thomson, Sir William (Lord Kelvin)	Mathematician, physicist, professor of natural philosophy.
Torricelli, Evangelista	Physicist and mathematician.
Tyndall, John	Physicist.
Vauban, Sebastien Le Prestre de	Military engineer and marshal.
<u>Venturi, Giovanni Battista</u>	Hydraulic engineer.
Vinci, Leonardo da	Painter, architect, sculptor scientist, engineer, mechanician, musician.
Volta, Count Alessandro	Physicist.
Watt, James	Mechanician, inventor, civil engineer.
Werner, Abraham Gottlob	Mineralogist, geologist.
Westinghouse, George	Inventor.
Wheatstone, Sir Charles	Physicist, inventor.
Whitney, Eli	Inventor, manufacturer.
Wright, Wilbur	With his brother was first to attain practical success with the aeroplane,

MASSACHUSETTS
INSTITUTE OF TECHNOLOGY
BOSTON

May 11, 1915.

Dear President Maclaurin,

I suggest the following economists
as worthy of commemoration:

Adam Smith

Ricardo

John Stuart Mill.

It is a little difficult, of course,
to make a selection among so many. Turgot
might be substituted for Mill, and possibly
you may have room for four.

Yours sincerely,

Sam A. Eliot

DUGALD C. JACKSON, PROFESSOR
ARTHUR E. KENNELLY, PROFESSOR
HARRY E. CLIFFORD, PROFESSOR
COMFORT A. ADAMS, PROFESSOR
FRANK A. LAWS, PROFESSOR
R. R. LAWRENCE, ASSOCIATE PROFESSOR
HARRISON W. SMITH, ASSOCIATE PROFESSOR
WM. E. WICKENDEN, ASSISTANT PROFESSOR
CHARLES W. GREEN, ASSISTANT PROFESSOR

ELECTRICAL ENGINEERING DEPARTMENT
MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

BOSTON, May 11, 1915.

Dr. Richard C. Maclaurin, President,
Technology.

Dear President Maclaurin:-

The names that I referred to on the Engineering Building of the University of Wisconsin I have just learned from a letter received from Dean Turneure are as follows:-

Bessemer (Mech. Eng.)	Kelvin (Elect. Eng.)
Corliss (Mech. Eng.)	Rankine (Civil Eng.)
Ericsson (Mech. Eng.)	Reynolds (Mech. Eng.)
Gramme (Elect. Eng.)	Siemens (Mech.& Elect. Eng.)
Henry (Elect. Eng.)	Telford (Civil Eng.)

These were selected by the engineering faculty at the University of Wisconsin some dozen years ago to represent the ten men then dead who had had the greatest influence upon applied science as practiced in engineering. We had long arguments over the names.

The following are, in my estimate, those men, who are now dead, who have had the greatest influence upon the progress of applied electricity, either through the discovery of the laws of electricity and magnetism or making direct applications thereof.

Ampere	Maxwell
Arago	Morse
Coulomb	Moisson
Davy	Oersted
Faraday	Ohm
Franklin	Rayleigh
Gilbert	Roentgen
Gramme	Rowland
Helmholtz	Siemen
Henry	Thales
Hertz	Volta
Hopkinson	Von Guericke
Joule	Watt
Kelvin	Weber

In addition to the foregoing list, I give the following as being of some considerable importance, and yet with-

Dr. R.C.M., Prest.....2

May 11, 1915.

out so much certainty of their importance. The men thus referred to are:-

Ferraris	Galvani
(Cyrus) Field	Pacinotti
Foucault	Sturgeon

In addition to the foregoing, the following mathematicians have had a great deal of influence upon the development of electrical engineering on account of the mathematical procedure which they have brought out:-

Carnot	Fresnel
Fourier	Laplace

The following men, who are dead, seem to me should be given the most careful attention from the standpoint of other branches of engineering:

Leonardo (Military Eng. and aeronautics)
Vermeyden (Drainage)
Telford (Roads)
Brindley (Canals)
Smeaton (Lighthouses and docks)

Fulton	Newcomen
Stevens	Murdock
Whitney	Rankine
Howe	Trevithick
Ericsson	Stephenson
Corliss	Brunel
Holley	Nasmyth
Reynolds	Babbage
Eads	Whitworth
Arkwright	Bessemer

Returning again to the electrical engineering people, of which I gave you a list of dead men earlier in this letter, it seems to me that there are two men who are still alive who have done so much by their inventions and discoveries in electrical engineering to revolutionize the methods of life in this civilized age, that it is reasonable to put their names on the building, making an exception in the rule against living men. These two men are

Alexander Graham Bell
and
Thomas Edison.

Dr. R.C.M., Prest.....3

May 11, 1915.

In the foregoing, I have given you extensive lists, not knowing just how extensive or limited the lists that you must work down should be, but I will be glad to cooperate in the condensation, in the case of the electrical engineering men, if you desire.

Sincerely yours,

Dugald C. Jackson

DCJ:B

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ARCHITECTURE

WILLIAM H. LAWRENCE
PROFESSOR OF ARCHITECTURAL ENGINEERING
CHAIRMAN OF THE DEPARTMENT

May 11, 1915

Dear Dr. Maclaurin:

We have all agreed upon the following list
of representative men in architecture:

The most appropriate name to stand by itself
seems to be that of Ictinus, architect of the Parthenon (Greek).

Five other names suggested are,-

Anthemius (Byzantine, Sta. Sophia)

Robert de Coucy (Gothic, Rheims Cathedral)

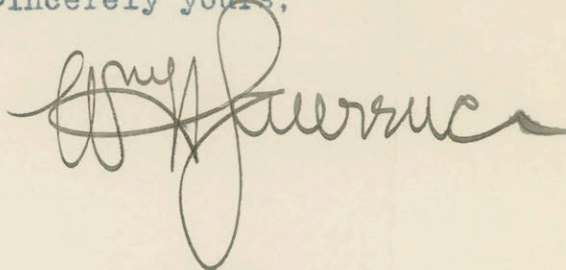
Brunelleschi (Renaissance, Florence Cathedral dome)

Christopher Wren (English, St. Paul's)

Charles Bulfinch (Colonial in America)

Hoping this will answer your purpose, I am

Sincerely yours,



President Maclaurin,

Massachusetts Institute of Technology,

Boston, Mass.

61
27
25
113

[5/14/15]

Dear Mr. Fish:

You will remember that at the last meeting of the Executive Committee we had a little discussion about names to be inscribed on the buildings of the Institute. For this purpose there are wanted ten names to occupy positions of special prominence and about a hundred names to be inscribed in smaller characters. I have asked some members of the Faculty to suggest such names, and I am sending you a list alphabetically arranged and setting forth the names that have been supplied. Most of the men are scientists or engineers, but there are a few architects and one or two representing what we here call General Studies, such as economics and literature. I am sending this list in the hope that you will get it tomorrow and may have time to look through it on Sunday. Will you be good enough to make such additions as occur to you and then cut the whole list down to about a hundred names. It will be a further assistance if you can indicate fifty or sixty of these that you feel have an unquestionable claim for inclusion in the final list.

There will be special difficulty in selecting the ten names to occupy positions of special prominence, and I should be glad if you would give me your suggestions regarding these

Mr. Fish - 2.

ten names. I am inclined to think that they should all or nearly all be men representing fundamental studies rather than the application of knowledge to practical pursuits. There might be one architect, one or two representatives of the "humanities" and the rest pioneers of science. A tentative list is the following: Archimedes, Aristotle, Copernicus, Darwin, Faraday, Galileo, Ictinus, Lavoissier, Newton, Shakespeare.

Yours sincerely,

May 14, 1915.

F. P. Fish, Esq.,
84 State Street,
Boston, Mass.

GENERAL ELECTRIC COMPANY

WEST LYNN, MASS.

In Reply Refer to

May 19, 1915.

Dr. R. C. Maclaurin, President,
Mass. Institute of Technology,
Boston, Mass.

Dear Dr. Maclaurin:-

I have gone over the list of names, and I am enclosing it with some few notes. I find in the list quite a number of architects. In fact, a considerable percentage of the whole list is made up of architects, and I agree with you that perhaps one or two only should be found in the final list ^{of ten} considering the other departments to be represented, and I think one or two should represent economics and literature. I also feel that you are right in giving emphasis to those names of the 10 to be chosen which represent fundamental studies rather than the applied knowledge, and I would think that one architect might be chosen with one representative of the "humanities", and the remaining eight pioneers in scientific discovery. I suppose that in the list of ten names Ictinus would represent architecture and Shakespeare the "humanities", and the remainder the pioneers in scientific investigation and discovery.

In regard to the more general and larger list, I have found considerable difficulty in choosing, and in some cases the difficulty is that there are a number bearing the same name, so that it is difficult to know which is the one referred to. For example, the name "King". There are a number of Kings, and I do not know

which one is meant. Also, as to Gordon, the same remark may be made. There are some misspellings also, which tend to a little confusion. For example, I suppose "Noble" is meant to be Nobel. I note, also, that Guericke is given under the end of the "G's" and "Von Guericke" under the "V's". I suppose this is a repetition. I suppose the same is true of Da Vinci and Vinci.

Taking up the list, I have marked four of the "A's"; Ampere, Arago, Archimedes and Aristotle, but if Archimedes and Aristotle come into the list of ten, then only two will be taken. I have added one name, Avogadro, but merely to ^{help} complete the list.

There are several under the name of Appolonius. I suppose the great geometer is referred to. It is a question in my mind what to do when there are a number of noted men bearing the same name. I hardly think the names of Arkwright and Armstrong need be retained.

In the list of "B's" I do not seem to place "Bauschinger". I do not know him. I question whether Babcock should be included, but there seems to be no doubt in my mind that Roger Bacon, and perhaps Becquerel should be included. I have added the names of Beccaria, Bergman (Swedish Chemist) and Berthollet. It seems to me that Berzelius should be chosen, and possibly Daniel Bernouilli. I am not certain about Berthollet. I would rather have the opinion of some chemist. As to the name "Baker" I do not know what Baker is referred to. Barlow's mathematical work and his ^{compass} ~~compend~~ ^a ~~tion~~ may entitle him to a place, but I have not marked him. Of the others in the "B" list, I have marked Bessel, Bessemer, Biot, Boyle, and

added Boscovich, Bradley and Brewster, but after Boyle I have marked none, except to enter little memoranda and put a question mark after Brindley, Bulfinch and Bunsen. This question mark is, to my mind, equivalent to rejection *of the name.*

As to the list of "C's", I have marked Carnot, Cavendish, Copernicus, Clausius, and also Corliss. I have not been able to place Castigliano, unless it is meant to be Castiglioni. I would take the opinion of a mathematician as to whether Cauchy should be included. There are a number of Clarks and a number of Coopers, but I do not know to which one reference is made, so have left them unmarked.

In the list of "D's" I have added several names, and have marked for preference Daguerre, Dalton, Darwin, Da Vinci, Davy, Descartes, de Rochas, Diesel. De Laval and De Lesseps are added to the list. Both are great names, and I believe De Laval has died within a year or two.

In the list of "E's" I have retained Eads, Ericsson, Euclid, leaving out Euler and Evans.

In the list of "F's" I have marked Faraday, Foucault, Fourier, Franklin and Fresnel. As to two of the names, I am not certain what Field is referred to, and what Francis. Francis, perhaps, is the inventor of life-boats, etc.

In the list of names beginning with "G" I have marked Galileo, Galvani, Gauss, Gay Lussac, Gilbert, Goodyear and Gramme. I am a little doubtful of the others. Gibbs, I suppose, is the well known chemist, Wolcott Gibbs. I do not know what Gordon is referred to, and Guericke occurs again as Von Guericke. I cannot, also, tell which Green is referred to. I have left Gutenberg,

the reputed inventor of printing unmarked, because I think it most likely that impressions from blocks were made before. At any rate, the art of printing could not have been much delayed, and would have been discovered by many people.

In the list of names beginning with "H", I have marked Helmholtz, Henry, Hero, Hertz and Howe. Possibly Hargreaves ought to come into the list as making great inventions in spinning machinery. I am not certain as to whom the name Harris applies. Possibly W. Snow Harris. In that case, I should reject him, and Harvey, I suppose, refers to the discoverer of the blood circulation, in which case I should consider him out of place in the list. Herschel seems out of place, although, of course, the work of Herschel is of very high standing in the field of astronomy. I notice the name Holley is marked over with an "a". I think the name referred to is ~~Holley~~ ^(not Halley), the mechanical engineer, but I should reject the name. Also the name Huggens is given, which, I suppose, is Huggins. I have marked for preference one of the names Huygens or Huyghens. The latter, I think, is the better spelling.

In the list of "J's" perhaps the two names which I would choose would be Jacobi and Joule, and I have consequently marked them.

I am mystified as to the "K's", for the name King, I do not know to which King it refers. I have marked Kelvin, although perhaps he originally became famous under the name of William Thomson. I have left the name Kepler doubtful, since the Institute lays no stress on astronomy. Kirchoff, however, I have marked, because of his early connection with spectrum analysis. It occurs to me that perhaps Bunsen ought to be included if Krechoff is.

In the list of names beginning with "L" I have marked Lagrange, Langley, Laplace, Lavoisier, Lister and Lyell. The spelling of Leibnitz should be changed. "Lieb" should be changed to "Leib"

I have added under the "M's" Montgolfier, and marked his name, as he was a ^{pioneer} designer in air-flight. The others that I have marked as preferable are Mascart, Maxwell, Mendelejeff, Michael Angelo and Moissan. There are other good names in the list which I have not marked. I have left the name of Morse unmarked, because while he is credited largely with the development of the electric telegraph, it is said that Vail, who worked with him, did the most of the real engineering, the idea of telegraphing being put forward by Morse, but the idea of using electric current to transmit (through wires) signals to ^{a receiver} ~~be interpreted~~ was much older.

Under the list of "N's" I have marked with preference Napier, Newcomen, Newton and Niepce. Nasmyth stands high in technical work as the inventor of the steam hammer and other useful inventions, but in view of the other good names in the list I have not included him.

I have marked Oersted in the list of those beginning with "O".

In the names beginning with a "P" there are quite a number of good names, but I have limited my marking to Pacinotti, Pasteur, Perkins, Planté, Priestly, Prony and Ptolemy representing a variety of kinds of scientific work done and work which has been of considerable importance.

I have marked among the "R's" Rankine, Regnault, Roentgen, Rowland and Rumford. I am a little in doubt as to which Reynolds is referred to, and also as to Ritter, ^{Probably Carl Ritter is meant.} geologist. The Russell referred to I suppose is the designer and builder of ships, and

possibly he should be marked. I have not, however, done so.

In the list of "S's" I have not marked Shakespeare because he appears in the list of ten. I have added to the other names Seebek and Senefelder. I have marked Siemens as preferential, Smith and Stephenson. Possibly Scheele might be included, and I have marked his name tentatively.

To the list of "T's" I have added Talbot and Thomas Thomson, the chemist. I suppose the Taylor in the list is the exponent of efficiency, who has just died, and the inventor of high speed steel for cutting tools. In this list I have marked Tait, Talbot, Thomas Thomson and Torricelli.

In the list of "V's" I have marked Volta and Von Guericke. The name of Virchow stands high, but I feel that perhaps he does not belong in this kind of a list, concerning an Institute of technology. It is possible that the name of Venturi should be marked and also Van't Hoff. Van't Hoff is quite recently deceased, and it may take some time to fairly evaluate his work.

Coming to the list of "W's" I have marked Watt, Weisbach, Wheatstone, Whitney and Wöhler, but I do not know which Wright is referred to. I have added the name of Wurtz, the French chemist.

In conclusion, I would say that I have added the name of Thomas Young, and marked it. It seems to me that his name should have been in the list.

I have omitted any reference to anyone living, as I do not think it would be proper to include any of those names.

Very truly yours,

(Enc.)

Edwin Thomson

- ✓ Ampère
 arch Anthemius St Sofia
 several Appolonius geom.
 ✓ Arago
 ✓ Archimedes
 ✓ Aristotle
 Arkwright ?
 Armstrong too many
 Avoogadro
 ✓ Babbage
 ? Babcock
 ✓ Bacon
 Roger
 Francis ?
 Baker too many to choose
 Barlow Math, compass
 ? Bauschinger dont know
 Beccaria
 ✓ Becquerel
 Bergmanns lived chem.
 ✓ Bernouilli several
 ✓ Berthollet
 Berzelius
 ✓ Bessel
 ✓ Bessemer ?
 ✓ Biot
 Bosovich
 Bouguer Math.
 Bowditch
 ✓ Boyle
 Bradley astro.
 Bramante arch
 Brewster
 Briggs math
 Brindley? mills canals ✓
 Brunel two of them
 Bruneleschi arch
 Bulfinch ? arch
 Bunsen ?
 ✓ Carnot
 Castigliano
 one -
 Cauchy
 Cavallo
 ✓ Cavendish
 ✓ Clark which? arch?
 ✓ Clausius
 ✓ Cooper which?
 ✓ Copernicus
 ✓ Corliss
 Coulomb
 Crompton ?
 Cuneus ?
 Cuvier ?
 ✓ Crookes
 ✓ Daguerre
 D'Alembert
 Dalton
 Dana
 Daniell ?
 Darien ?
 D'Arsonval ?
 ✓ Chas Darwin which? yes
 ✓ Da Vinci
 ✓ Davy
 Dawson
 Debeaumont ?
 de Coucy ?
 De la Rue ?
 De la Rive ?
 ✓ Descartes
 ✓ de Rochas
 ✓ Diesel
 Diophantus ? not certain he is author
 de Laval - 2 he dead ?
 de Lesseps.
 ✓ Eads
 ✓ Ericsson
 ✓ Euclid
 Euler
 Evans ?

Fairbairn	Grashof ?	Hipparchus
✓ Faraday	Green <i>which ?</i>	
Faure	Guericke	
Ferraris	Gutenberg ?	✓ Ictinus arch
Field ?		
✓ Foucault		
✓ Fourier	Hargreaves <i>opening ferry</i>	✓ Jacobi <i>math</i>
Francis ? <i>life boats ?</i>	Harris <i>Widnow ? which</i>	Jacquard
✓ Franklin	Harvey <i>blood ?</i>	Jenner ?
✓ Fresnel	Haswell ?	✓ Joule
Fritz ?	✓ Helmholtz	
Froude ?	✓ Henry	
Fulton	✓ Hero	
	Herschel	Kekule ?
	✓ Hertz	✓ Kelvin
	Hirn ?	✓ Kepler
✓ Galileo	Hodgkinson <i>materials</i>	King <i>what King ?</i>
✓ Galvani ?	Holley ?	✓ Kirchoff
✓ Gauss	Hooke	Kirkaldy ?
✓ Gay Lussac	Hopkinson	
Geissler ?	✓ Howe	✓ Lagrange
Ghiberti <i>arch</i>	Huggens <i>Huggins ?</i>	Lalande
Gibbs	Hughes ?	✓ Langley
✓ Gilbert	Humboldt	✓ Laplace
✓ Goodyear	✓ Huygens	✓ Lavoisier
Gordon <i>which ?</i>	Huyghens	Legendre <i>math</i>
✓ Gramme	Huxley	✓ Leibnitz

Lenz ?		
Leonardo <i>math</i>	✓ Napier	Poggendorff ?
Liebeg ?	Nasmyth	Poincaré
Linnaeus ?	Newcomb ?	Poisson
✓ Lister	✓ Newcomen	Poncelet ?
Lobatchewski	✓ Newton	Powell <i>geol. ?</i>
Logan <i>geol. ?</i>	Noble <i>or Nobel which ?</i>	Preece ?
✓ Lyell <i>geol. ?</i>	✓ Kieffer <i>geol. ?</i>	✓ Priestley
		✓ Prony
		✓ Ptolemy
		Pythagoras
Macadam	✓ Oersted	
McCormick ?	Ohm	
Malthus ?	Otto	
Mariotte		
✓ Mascart		
✓ Maxwell	✓ Pacinotti	✓ Rankine
✓ Mendelejeff	Palladio <i>arch</i>	Rapleigh
Mercator	Papin	Reboux ?
✓ Michael Angelo	Pascal	✓ Regnault
Mill	✓ Pasteur	Reis ?
✓ Moisson <i>a</i>	Peltier	Reynolds <i>which ?</i>
✓ Montgöfier	✓ Perkins	Ricardo <i>economist</i>
Morison ?	Pierce <i>which ?</i>	Ritter <i>which ?</i>
Morse		<i>geol. ?</i>
Murdock <i>gas</i>	✓ Plante	Roebing
Musschenbröck	Plato	✓ Roentgen
	Piotet (deceased ?)	

- ✓ Rowland
- Ruhmkorff
- ✓ Rumford
- Russell *chefs*
- ? ✓ Scheele
- Sellers ?
- Shakespeare
- ✓ *Seebeck* Siemens
- Senefelder, Lithog.*
- Smeaton
- ✓ Smith (Adam)
- Stevens
- ~~Edwin~~ ?
- ~~John~~ ?
- ~~Robert~~
- ✓ Stephenson
- George
- Robert
- Stokes
- Sturgeon ?
- Suess ?
- Trevithick
- Turgot *econ.*
- Tycho Brahe
- Tyndall ?
- Vauban *Military*
- Van't Hoff
- Varley ?
- Venturi
- Vermuyden ?
- Vieta ?
- Vinci
- Virchow
- ✓ Volta
- ✓ Von Guericke
- reputation*
- Weyrauch ?
- ✓ Wheatstone
- ✓ Whitney *elli.*
- Whitworth ?
- Wilde ?
- ✓ Wöhler
- Woolff *chemist ?*
- Worthington *pumps ?*
- Wren *sil.*
- Wright *which*
- Murphy* *of aerial ?*

- Living
- Bell
 - Edison
 - Goethals
 - Marconi
 - Rayleigh

✓ Young, Thomas

- ✓ Tait
- ✓ Talbot
- Taylor *off. Taylor ?*
- Telford
- Thales ?
- ~~Thomson~~
- ✓ Thomson, Thomas
- ✓ Torricelli
- ✓ Watt
- Webb *which ?*
- Weber ?
- ✓ Weisbach
- Werner *geology*
- Westinghouse

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ARCHITECTURE

RALPH ADAMS CRAM
PROFESSOR OF ARCHITECTURE

May 21, 1915

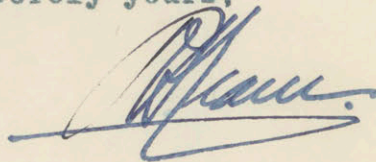
Dear Dr. Maclaurin:

Professor Lawrence has told me of the criticism that has been made to you with regard to the names of architects. I am inclined to think there is some force in this, and, if you approve, I think it might perhaps be better to choose the name of Vitruvius as representing all architects, substituting this in place of Ictinus. If you do this then Ictinus should be substituted for Anthemius, for we must have a Greek architect, and with Vitruvius and Anthemius we should have ^{two} Romans (East and West) and no Greek.

The list would then read:

VITRUVIUS
ICTINUS
ROBERT DE COUCY
BRUNELLESCHI
CHRISTOPHER WREN
CHARLES BULFINCH

Very sincerely yours,



President Maclaurin,
Massachusetts Institute of Technology
Boston

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

May 24, 1915.

Dear Dr. Maclaurin:

I send with this a list of names as you desired. I find it quite impossible to make a selection which I am at all satisfied with, and in many cases, do not feel that I have sufficient knowledge to judge among them. I send first a list of a little fewer than one hundred names which I have selected with such surety as is possible, though I imagine that a more intermittent consideration would lead to changes. I have inserted in this list the name of Joseph Henry which had dropped out probably through an error in copying. I have underscored all the names which were originally handed in by this department. I have added the name of Thomas Young to this list. I have seen no reason whatever for altering the list which we handed in so far as our own branch of the subject is concerned. I have transferred Röntgen's name to the list of those still living.

Following the principal list I send an alternative list some of the names in which ought doubtless to be substituted for those in my first list though I can't make up my mind which if any, these are.

I have also made a brief list of additions of authorities in other departments which I think may have been overlooked.

I do not know just what importance in now attached

[5/24/15]

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

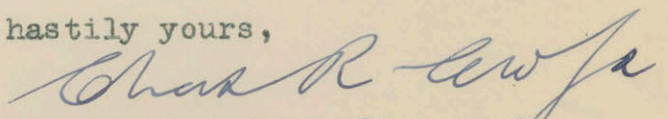
-2-

to the work of Murdock. There is a sentimental reason for placing the name on the new building inasmuch as his name was almost the last word spoken by President Rogers prior to his death. Not more than half a dozen words followed it.

I have not included in my list the name of Shakespere since it seems to me that these names should be confined to men who have been great in science or the application of science, otherwise I should think we must add to the list Homer, Virgil, Dante, Goethe at least. For a like reason I have omitted Mill. With more doubts, I have omitted Lister, Harvey, and Jenner as their work seemed most closely related to medicine and surgery.

I was surprised to find the names of so few architects.

Very hastily yours,



P.S. It occurs to me to suggest that it would be well to decide on some community of system in spelling, for example in the matter of accents and the like.

Aristotle

Copernicus

Darwin

Newton

Furber

a chemistry

Some names too

Leonardo da Vinci

a Levitt

Pasteur

genius

Copernicus as near as get

Galileo

Leonardo da Vinci

Perhaps no

America

by name of any Henry or Franklin

Henry was

the chief people of America

(Columbus too)

3

John

Smith

Anderson

London

Very hastily yours,

It occurs to me to suggest that it would be well

to decide on some community of system in spelling, for ex-

ample in the matter of accents and the like.

?

Phonology

Some Arab (Societism?)

(arrienne)

arrienne

Photo house

for Seal

100

100

Arany

Spring

Some Roman

S.F.B.

Franklin Cross

✓ <u>Ampère</u>	X	D'Alembert	✓ <u>Helmholz</u> ^t
✓ <u>Archimedes</u>	✓	Dalton	✓ <u>Henry</u>
✓ Aristotle	✓	Darwin	X Hero
✓ Arkwright	✓	Da Vinci	✓ <u>Hertz</u>
	✓	Davy	X Hirn
✓ Berzelius	✓	Descartes	X Hooke
X Bessel			X Howe
✓ Bessemer	✓	Ericsson	✓ <u>Huygens</u>
✓ Boyle	✓	Euclid	X Huxley
X Bramante			✓ Hipparchus
✓ Brunelleschi	✓	<u>Faraday</u>	
✓ Bulfinch	X	Ferraris	
X Buhsen	✓	Foucault	X Jacquard
	✓	Fourier	✓ <u>Joule</u>
✓ Carnot	✓	Franklin	
✓ Cavendish	✓	<u>Fresnel</u>	✓ Kekule
✓ Clausius	✓	Froude	✓ <u>Kelvin</u>
✓ Copernicus			✓ Kepler
X Cuvier	✓	<u>Galileo</u>	✓ <u>Kirchoff</u>
	✓	Gay Lussac	
	X	Ghiberti	X Langley
	X	<u>Gibbs</u>	✓ Laplace
	✓	Gilbert	✓ Lavoisier
	✓	Goodyear	X Leibnitz
	✓	Gutenberg	X Liebig
			X Linnaeus
			✓ Lyell

✓	McCormick	✓	Thales
✓	<u>Maxwell</u>	✓	Torricelli
✓	Mendelejeff	✓	Tycho
✓	Michelangelo	✓	Van't Hoff
✓	Newcomen	✓	<u>Volta</u>
✓	<u>Newton</u>	✓	Watt
✓	Ohm	✓	Weber
✓	Pacinotti	✓	Werner
✓	Pasteur	✓	Whitney
✓	Planté	✓	Wöhler
✓	Priestley	✓	Wren
✓	Ptolemy	✓	Young
✓	Pythagoras		
✓	Rankine		
✓	Regnault		
✓	<u>Rowland</u>		
✓	<u>Rumford</u>		
✓	Scheele		
✓	Siemens		
✓	Smeaton		
✓	Sturgeon		

Apolonius

ALTERNATIVE

Bernouilli

Diophantus

Gauss

Herschel

Lobatchewski

Murdock

Nasmyth

Otto

Roebbling

Stokes

Virchow

ADDITIONS

Aristarchus

Hamilton

Hill

Hoe

Le Verrier

(or Adams)

DUGALD C. JACKSON, PROFESSOR
ARTHUR E. KENNELLY, PROFESSOR
HARRY E. CLIFFORD, PROFESSOR
COMFORT A. ADAMS, PROFESSOR
FRANK A. LAWS, PROFESSOR
R. R. LAWRENCE, ASSOCIATE PROFESSOR
HARRISON W. SMITH, ASSOCIATE PROFESSOR
WM. E. WICKENDEN, ASSISTANT PROFESSOR
CHARLES W. GREEN, ASSISTANT PROFESSOR

ELECTRICAL ENGINEERING DEPARTMENT
MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

BOSTON, May 24, 1915.

Dr. Richard C. Maclaurin, President,
Technology.

Dear President Maclaurin:-

Responding to your request, I send you herewith enclosed my selection of what appear to me to be the 100 most significant names amongst the aggregate list, forwarded by you, of names proposed for the entablatures of the Technology buildings. Dr. Kennelly has joined me in this selection and asks me to say that generally speaking he concurs in it.

The basis of selection is to include 100 names of only men who without question have modified the world's civilization by making either additions to the methods of thought in economic philosophical branches, revolutionary discoveries in science, revolutionary inventions, or extraordinary and ^{surpassing} ~~overshadowing~~ advances in machinery or structures; and in following this path, the attempt has been to make the selection irrespective of the particular branch or branches of knowledge embraced by the men whose names are selected.

I do not include the overshadowing name of Shakespeare, solely because his

Dr. R.C.M., Prest....2

May 24, 1915.

preeminence is in literature rather than in any of the four activities named above.

There are just 100 names in the enclosed list, and among these I include the names of two living men,- Bell and Edison,- on account of the tremendous effect of their work on business and social life.

I have taken the liberty of restoring the name of Joseph Henry to the list, as his name was amongst those originally handed in and must have been omitted from the compilation by a typographical error. His discoveries in electromagnetic induction and related electromagnetic branches place him close to Faraday and his inventions of the electromagnetic relay and the electromagnetic methods of signalling at a distance also laid the foundation of Morse's telegraph.

Sincerely yours,

Dugald C. Jackson

Enclosures.

Living men

✓ Ampere
 ✓ Archimedes
 ✓ Arkwright
 ✓ Bacon
 ✓ Berzelius
 ✓ Bessemer
 ✓ Brindley
 x Brunel
 ✓ Bruneleschi
 x Bunsen
 ✓ Carnot
 ✓ Corliss
 x Coulomb
 ✓ Dalton
 ✓ Darwin
 ✓ Davy
 ✓ Descartes
 x Diophantus
 ✓ Eads
 ✓ Ericsson
 ✓ Euclid
 ✓ Euler
 ✓ Faraday
 x Field
 ✓ Fourier
 x Francis
 ✓ Franklin
 ✓ Froude
 ✓ Fulton
 ✓ Galileo
 x Gauss
 ✓ Gibbs
 ✓ Gilbert
 x Gramme
 ✓ Gutenberg
 ✓ Hargreaves
 ✓ Harvey
 ✓ Helmholtz
 ✓ Henry
 ✓ Hertz
 x Humboldt
 ✓ Huyghens
 x Huxley
 ✓ Ictinus
 ✓ Jenner
 ✓ Joule
 ✓ Kelvin
 ✓ Kepler
 ✓ Lagrange

✓ Laplace
 ✓ Lavoisier
 ✓ Leonardo (da Vinci)
 ✓ Liebig
 ✓ Linnaeus
 x Lister
 x Maxwell
 ✓ Mendelejeff
 x Mercator
 x Michael Angelo
 x Mill
 x Moisson
 ✓ Morse
 ✓ Napier
 x Nasmyth
 ✓ Newcomen
 ✓ Newton
 ✓ Oersted
 ✓ Ohm
 ✓ Pascal
 ✓ Pasteur
 x Plato
 x Poincare
 x Poisson
 x Poncelet
 ✓ Priestley
 ✓ Ptolemy
 ✓ Pythagoras
 ✓ Rankine
 x Reynolds
 x Roebling
 x Roentgen
 ✓ Rumford
 ✓ Siemens
 x Smeaton
 x Stevens
 ✓ Stephenson
 x Telford
 ✓ Thales
 ✓ Tycho Brahe
 x Vauban
 x Vermuyden
 ✓ Volta
 ✓ Watt
 ✓ Westinghouse
 ✓ Whitney
 x Whitworth
 ✓ Wren
 x Wright

Bell
 Edison

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ARCHITECTURE

WILLIAM H. LAWRENCE
PROFESSOR OF ARCHITECTURAL ENGINEERING
CHAIRMAN OF THE DEPARTMENT

May 24, 1915

Dear Dr. Maclaurin:

We hardly feel competent to criticize the names on your list except so far as they may be representative of architecture and its allied arts. In regard to certain names there seems to be no possible question; others fall into groups, each group representing more or less a given period, and from each group one may be selected as representative and the others omitted.

There should be no question I think in regard to Ictinus and Anthemius.

Bramante, Brunelleschi, Ghiberti, and Palladio fall into a group representing the Renaissance. Of these four men Brunelleschi undoubtedly stands out as the pioneer; the other three therefore might be omitted.

Robert de Coucy, although representative of the Gothic, was really not a great architect. There were no architects ^{in this period} - he was simply a master-builder, having charge of the work. He might therefore, if necessary, be omitted.

Wren and Gibbs would fall into the same period as representing architecture in England. Of the two, Wren should be selected, therefore Gibbs might be omitted.

Bulfinch seems to stand alone as representing Colonial work in America, and I should hardly want to see his name left out.

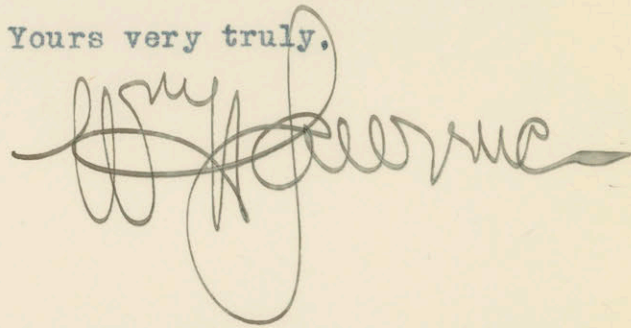
[5/24/15]

Dr. Maclaurin - 2

It would be difficult perhaps to include Michelangelo with the selected list of architects. His name might well be retained, however, as a representative of sculpture, and that of Leonardo as a representative of painting.

I would therefore suggest the possible omission of the following names: Bramante, Ghiberti, Gibbs, Palladio, and, if *absolutely* necessary, de Coucy.

Yours very truly,



President Maclaurin,

Massachusetts Institute of Technology

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL AND SANITARY ENGINEERING

CHARLES M. SPOFFORD
HAYWARD PROFESSOR OF CIVIL ENGINEERING

BOSTON, MASS.

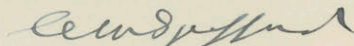
May 24, 1915.

Dr. Richard C. Maclaurin, President,
Massachusetts Institute of Technology,
Boston, Massachusetts.

Dear Dr. Maclaurin:

From the list of names suitable for inscription on the pavilions of our new buildings which you sent me on Saturday last, I have selected the enclosed list of one hundred names which in my opinion should be used. Several of these are the names of living men whose reputation is sufficiently ^{established} fixed to warrant, in my opinion, their placing on the walls. In addition to the alphabetical list, I am presenting another list in which the names are arranged by classification, and still another list from which the ten names to be added in large letters should be selected.

Very truly yours,



INSCRIPTIONS FOR NEW TECHNOLOGY.

C. M. Spofford.

New Technology-Inscriptions.List of One Hundred.*Edward J. Poff*

✓	Ampere	✓	Euler	×	Lister
✓	Archimedes	✓	Faraday	✓	Lyell
✓	Aristotle	✓	Franklin	×	Macadam
✓	Arkwright	✓	Fulton	×	McCormick
×	Agassiz	✓	Galileo	×	Malthus
✓	Bacon, Francis	✓	Galvani	×	Mariotte
×	Bernouilli	✓	Goodyear	✓	Maxwell
✓	Bessemer	✓	Gutenberg	×	Mercator
✓	Boyle	✓	Hargreaves	×	Michael Angelo
✓	Bramante	✓	Harvey	×	Mill
✓	Bruneleschi	×	Herschel	✓	Morse
×	Bunsen	✓	Hertz	✓	Napier
✓	Carnot	×	Hooke	×	Nasmyth
✓	Copernicus	×	Howe	✓	Newton
✓	Corliss	✓	Huyghens	×	Ohm
×	Coulomb	×	Huxley	×	Palladio
×	Cuvier	✓	Jenner	✓	Pascal
✓	Dalton	✓	Joule	✓	Pasteur
✓	Darwin	✓	Kelvin	×	Pliny
✓	Da Vinci	✓	Kepler	×	Poincare
✓	Davy	×	Langley	×	Poisson
✓	Descartes	✓	Laplace	×	Poncelet
✓	Eads	✓	Lavoisier	✓	Ptolemy
✓	Erissson	×	Leibnitz	✓	Pythagoras
✓	Euclid	×	Liebig	✓	Rankine

✓	Roebbling	✓	Venturi
✓	Roentgen	✓	Volta
✓	Rowland	✓	Watt
✓	Smeaton	✓	Westinghouse
✓	Smith	✓	Wheatstone
✓	Stephenson	✓	Whitney
✓	Spencer	✓	Wren
✓	Taylor	✓	Wright
✓	Telford		
✓	Torricelli		<u>Living</u>
✓	Tyche Brahe		Bell
✓	Tyndal		Edison
			Eiffel
			Goethals
			Marconi

New Technology-Inscriptions.

Suggestions for the Ten Most Prominent Names.

Edmund Spenser

Archimedes

Aristotle

Copernicus

Darwin

Franklin

Fulton

Galileo

Newton

Stephenson

Watt

Alternates

Bacon

Bell

Edison

Spencer

Wright

NEW TECHNOLOGY-INSCRIPTIONS.

LIST OF ONE HUNDRED, CLASSIFIED.

Leung

Architects.

- ✓ Bramante*
- ✓ Bruneleschi
- ✓ Da Vinci*
- ✓ Michel Angelo
- ✓ Palladio
- ✓ Wren

*See repetition under "Engineers and Inventors."

Astromomers.

- ✓ Copernicus
- ✓ Galileo*
- ✓ Herschel
- ✓ Huyghens*
- ✓ Kepler
- ✓ Langley
- ✓ Laplace*
- ✓ Ptolemy
- ✓ Tyche Brahe

See repetition under "Mathematicians and Physicists."

Chemists.

Bunsen

Dalton

Davy

Faraday*

Lavoisier

~~xxxxxxxx~~

Liébig

*See repetition under "Mathematicians and Physicists."

Engineers and Inventors.

✓ Archimedes	✓ Nasmyth
✓ Arkwright	✓ Poncelet
✓ Bessemer	✓ Rankine
✓ Bramante*	✓ Roebling
✓ Corliss	✓ Smeaton
✓ Da Vinci*	✓ Stephenson
✓ Eads	✓ Taylor
✓ Ericsson	✓ Telford
✓ Fulton	✓ Venturi
✓ Goodyear	✓ Watt
✓ Gutenberg	✓ Westinghouse
✓ Hargreaves	✓ Whitney
✓ Howe	✓ Wright
✓ Macadam	
✓ McCormick	
✓ Morse	
	<u>Living</u>
	✓ Bell
	✓ Edison
	✓ Eiffel
	✓ Goethals
	✓ Marconi

*See repetition under "Architects." "Inventors."

Mathematicians and Physicists.

✓ Ampere	✓ Mariotte
Aristotle	✓ Maxwell
Barrow, Bernoulli	✓ Napier
	✓ Newton
✓ Bernoulli	Ohm
✓ Boyle	✓ Pascal
✓ Carnot	✓ Poincaré
✓ Coulomb	✓ Poisson
✓ Descartes	✓ Pythagoras
✓ Euclid	✓ Roentgen
✓ Euler	✓ Rowland
✓ Faraday*	✓ Torricelli
✓ Galileo**	✓ Tyndal
✓ Galvani	✓ Volta
✓ Hertz	✓ Wheatstone
✓ Hooke	
✓ Huyghens**	
✓ Joule	
✓ Kelvin	
✓ Laplace**	
✓ Leibnitz	

*See repetition under "Chemists."
** " " " " "Astronomers."

Naturalists.

✓ Cuvier
✓ Darwin
✓ Pliny

Philosophers.

✓ Franklin - Aristotle - Bacon - Spencer

Economists.

✓ Malthus
✓ Mill
✓ Smith
~~Spencer~~

Geologists.

✓ Agassiz
✓ Lyell

Physicians, Surgeons and Biologists.

✓ Harvey
✓ Huxley
✓ Jenner
✓ Lister
✓ Pasteur

Geographers.

Mercator.

Eads 1820 457. Anemia engine. Crushed part body air
transmitted to L. Lams. The work is almost finished
chief parts was his deepening & fixing the channel at the mouth
of the mouth & near to others

Arkwright ~~was~~ multiple threads - limited to eight
Hargreaves - ~~was~~ multiple threads - limited to eight
→ Arkwright - made it applicable to the warp & also used
the invention of threads to any degree of fineness

Crompton elemental not so important

Bradley #1716. within up of limits. Cavalry, etc.
probably not of first importance. depth very great

→ Fairbairn Revolutionary mill construction
Artiss early type of spinning machine from England

Diesel engine includes his very original features; it operates at
pressure very much higher than those used on any other
internal combustion engines - it disposes with all the usual
quietly diminishes fluctuations in air charge in the cylinder

→ Otto in 1876 presented other gas engine - one part of the kind
known as the Otto engine. Others presented at the same time but not so successful

de Rochas gas theory of this engine - 14 gas cylinder

? Cyrus Field

Lesephs

de Lard steam hull

Jacquard

submarine 3 also

EVERETT MORSS
201 DEVONSHIRE ST.
BOSTON

May 26, 1915.

Dr. R. C. Maclaurin, President,
Mass. Institute of Technology,
Boston, Mass.

Dear Br. Maclaurin:-

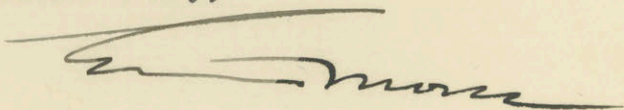
Enclosed please find letter from Richards regarding the
list of names to be inscribed on buildings.

The names that he had marked are as follows;

✓ Babbage	✓ Fulton	✓ Rankine
✓ Babcock	✓ Goodyear	✓ Roebling
✓ Bessemer	✓ Hargreave	✓ Sellers
✓ Bruneleschi	✓ Haswell	✓ Siemens
✓ Cooper	✓ Holley	✓ Smeaton
✓ Copernicus	✓ Howe	✓ Robert Stevens
✓ Corliss	✓ Huyghens	✓ Robert Stephenson
✓ Crompton	✓ Jacquard	✓ Taylor
✓ Da Vinci	✓ Joule	✓ Watt
✓ Davy	✓ Kelvin	✓ Westinghouse
✓ Eads	✓ Maxwell	✓ Whitney
✓ Ericsson	✓ Michael Angelo	✓ Whitworth
✓ Foucault	✓ Nasymth	✓ Worthington
✓ Francis	✓ Newcomen	✓ Bell
✓ Fritz	✓ Otto	✓ Edison.

Yours truly,

EM-RM



[encl 5/26/15]

COOPER UNION
NEW YORK

OFFICE OF THE DIRECTOR

May 25th, 1915.

Dear Everett:-

I have no particular idea about this matter of the list except that it seems to me that it would be very fortunate to include a great engineer among the prominent ten inasmuch as it seems as if the field of applied science or engineering - which is so significant in the purposes of the institution - should be recognized. My own inclination would be to give strong weight to these men throughout the list. I have marked them where they occur as well as some other names. The only addition that I could suggest would be Cartwright, the inventor of the power loom.

Very truly yours,

C. P. Richards

Mr. Everett Morss,
201 Devonshire Street,
Boston, Mass.

Dear Mr. Fish:

You will remember that we have had some discussion of names to be inscribed on our new buildings. The architect is clamoring, particularly for the ten names to which special prominence is to be given. At the meeting of the Executive Committee on Monday, I was empowered to settle the whole matter, but before doing so I should very much like to hear your views upon the subject. Professor Elihu Thomson has given the matter a good deal of thought and has made some valuable suggestions. Would it be possible for us to meet perhaps at lunch within the next few days and discuss the situation? It seems to me that it would be well to make up a list of perhaps fifteen names and reduce these to ten as a result of more careful weighing.

Yours sincerely,

May 25, 1915.

Mr. F. P. Fish,

84 State Street,

Boston, Mass.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
BOSTON, MASS.

May 11, 1915.

Dr. R. C. Maclaurin,
President, M. I. T.

Dear Sir:-

In reply to your request for names of eminent Geologists to be inscribed on the new buildings, I beg to state that the names which seem most important to the Geological Department are, LYELL, DANA.

Other Geologists who are among the exponents of the great principles of the science are, DEBEAUMONT, SUESS.

If it should be desired to place some names of great Geological explorers on the buildings, I would suggest one or two of the following: POWELL, KING, LOGAN, DAWSON.

Very sincerely,

W. Lindgren

Dear Mr. Fish:

For the ten names to be given special prominence on our new buildings, we agreed on Sunday upon the following:-

(1) Aristotle, (2) Copernicus, (3) Newton, (4) Faraday, (5) Darwin, (6) a chemist, presumably Lavoisier, as the father of modern chemistry. For the four vacancies, there were suggested Pasteur, Leonardo da Vinci, Archimedes, Shakespeare, and possibly Henry, as the leading physicist of America. Since then, some one has suggested Michael Angelo as an alternative to Leonardo da Vinci. Of course, I should like to see an American, but I do not think that even Henry reaches the level of the other names mentioned. The only one with whom he could be compared would be Faraday, and Faraday besides being the pioneer in electricity and a discoverer of far-reaching principles, stands above all for the master experimenter. Very few moderns could properly be put in the list of ten and except for political accidents, Newton and Shakespeare might count for Americans just as well as for Englishmen. I think, after all, that we should include Shakespeare. If one thinks of him merely as a master of literary form one would naturally question the propriety of inscribing his name on the walls of the Institute. My thought with regard to these ten names is, however, that their purpose should be to suggest to the student lines of thought and activity. Most of the students are

Mr. Fish - 2.

prospective engineers and we should suggest to them not only that they should be interested in literary form, but especially that they should be interested in human nature and I should place Shakespeare before them as showing pre-eminently an insight into humanity in its limitless phases.

Yours sincerely,

June 1, 1915.

F. P. Fish, Esq.,
84 State Street,
Boston, Mass.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

BOSTON, MASS.

May 22, 1915.

President R. C. Maclaurin,

M. I. T.

Dear Sir:

In reply to your letter of May 21st, enclosing list of names to be carved on the new building:

I do not feel myself able to criticise the list of scientific men outside of my department. You will remember the names suggested ^{by me} were: LYELL, DANA, DeBEAUMONT, DAWSON, KING, LOGAN, POWELL, SUESS. I would suggest that in my opinion those most qualified to remain would be LYELL, DANA, SUESS, and DeBEAUMONT, and that the other four could be omitted.

Very sincerely yours,

W. Lindgren

WL/W
Enc.

FREDERICK P. FISH
W. K. RICHARDSON
ROBERT F. HERRICK
CHARLES NEAVE
GUY CUNNINGHAM
ALEX. D. SALINGER
JEREMIAH SMITH, JR.
J. LEWIS STACKPOLE
WILLIAM G. MCKNIGHT
MALCOLM DONALD
J. W. FARLEY
HARRISON F. LYMAN
HENRY W. DUNN
CLARENCE D. KERR
ALAN N. MANN
ALBERT M. LYON
PHILLIPS KETCHUM
FISHER H. NESMITH
HECTOR M. HOLMES
GEORGE C. ARVEDSON

FISH, RICHARDSON, HERRICK & NEAVE

84 STATE STREET, BOSTON. 5 NASSAU STREET, NEW YORK.

TELEPHONES
BOSTON
6740 MAIN
NEW YORK
5485 RECTOR

BOSTON

June 3, 1915.

President R. C. Maclaurin,
Massachusetts Institute of Technology,
Boston.

My dear President Maclaurin:

I am very sure that Leonardo da Vinci should be on the list rather than Michael Angelo. It seems to me that Leonardo, great as he was as an architect, was preeminently an engineer. I can not help regarding him as, on the whole, one of the great engineers of the world whose greatness was accentuated by his artistic work. I sincerely hope that it will be Leonardo rather than Michael Angelo.

The more I think of the matter, the more I feel that Pasteur should be among the ten. Among other reasons is the very small one that he is the only one on the list who stands for the last half of the 19th century.

I shall be sorry to have Henry's name omitted. While it seems to me that he was a man so near the front rank that we might possibly adopt his name as the only American who is entitled to any consideration, I shall defer to your judgment in the matter.

While, of course, I regard Shakespeare as entitled to representation in almost any list of names, my instinct would be not to put him among the ten. Here again, however, I en-

FREDERICK P. FISH
W.K. RICHARDSON
ROBERT F. HERRICK
CHARLES NEAVE
GUY CUNNINGHAM
ALEX D. SALINGER
JEREMIAH SMITH, JR.
J. LEWIS STACKPOLE
WILLIAM G. MCKNIGHT
MALCOLM DONALD
J.W. FARLEY
HARRISON F. LYMAN
HENRY W. DUNN
CLARENCE D. KERR
ALAN N. MANN
ALBERT M. LYON
PHILLIPS KETCHUM
FISHER H. NESMITH
HECTOR M. HOLMES
GEORGE C. ARVEDSON

FISH, RICHARDSON, HERRICK & NEAVE

84 STATE STREET, BOSTON. 5 NASSAU STREET, NEW YORK.

TELEPHONES
BOSTON
6740 MAIN
NEW YORK
5485 RECTOR

BOSTON

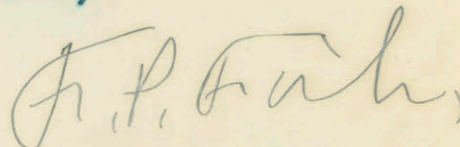
[6/3/15]

R.C.M. 2

tirely appreciate your point of view and shall concur in your final conclusion. If you put him on, how will you spell his name? I think that it would be well to consult Professor Kirtledge of Harvard on this point.

There is no doubt whatever that Archimedes is about the best known of all engineers and might well be among the ten.

Very truly yours,



apl

Dear Professor Kittredge:

A few names great in the history of intellectual achievement are to be inscribed on the new buildings of this Institute now being erected in Cambridge. Amongst the names suggested for this purpose is that of Shakespeare. Will you be good enough to tell me how, in your judgment, this name should be spelled?

Yours sincerely,

June 4, 1915.

Professor G. L. Kittredge,
Harvard University,
Cambridge, Massachusetts.

should probably choose
the latter (Shakespeare),
because it is less likely
to be challenged.

Both spellings are well
authorized.

Yours very truly
G. H. Kittredge

8 HILLIARD STREET
CAMBRIDGE

June 10, 1915

Dear Mr. President,

You have your choice
between (1) Shakspeare and
(2) Shakespeare.

I commonly use the
former. If I were using
the name for your pur-
pose, however, and were
in your place, I

Dear Mr. Fish:

Dr. Maclaurin has asked me to send you the enclosed list which gives the names that have been inscribed on the new buildings of the Institute. The names to the right (Aristotle to Copernicus) are those that have been given special prominence.

Yours sincerely,

Secretary to the President.

October 21, 1915.

F. P. Fish, Esq.,
84 State Street,
Boston, Massachusetts.

NAMES ON ATTICS OF PAVILIONS

Thales, Pythagoras, Euclid, Apollonius, Hipparchus, Ptolemy, Fourier, Helmholtz, Kelvin, Gibbs	)	Aristotle
Tycho Brahe, Galileo, Kepler, Euler, D'Alembert, Lagrange, Laplace, Herschel, Adams, Hill, Poincare.	)	Newton
Democritus, Plato, Averroes, Bacon, Descartes, Pascal, Napier, Davy, Regnault, Foucault,	)	Franklin
Harvey, Linnæus, Jenner, Agricola, Hutton, Lyell, Dana, De Beaumont, Suess, Bessemer.	)	Pastour
Boyle, Cavendish, Priestley, Dalton, Gay Lussac, Berzelius, Wohler, Liebig, Bunsen, Mendelejeff, Perkin, van't Hoff.	)	Lavoisier
Gilbert, Coulomb, Volta, Oersted, Ampere, Ohm, Henry, Maxwell, Morse, Siemens, Gramme, Hertz.	)	Faraday
Gutenberg, Watt, Arkwright, Whitney, Perkins, Fulton, Fairbairn, Froude, Otto, De Laval, Wright.	)	Archimedes

NAMES ON ATTICS OF PAVILIONS - contd.

Ictinus, Phidias, Vitruvius,	}	Leonardo da Vinci
Anthemius, De Coucy, Giotto,		
Brunelleschi, Wren, Bulfinch.		

Guericke, Torricelli, Chiadni,	}	Darwin
Huygens, Young, Arago, Fresnel,		
Daguerre, Kirchhoff, Rowland.		

Black, Rumford, Joule, Clausius,	}	Copernicus
Carnot, Telford, Stephenson,		
De Lesseps, Rankine, Eads.		

Dr Macdonald

COPY

alper

287 BEACON STREET,

Boston, December 13th, 1915.

Messrs. Stone & Webster,

Construction Department.

Gentlemen:--

One of the spaces on the front of the new Institute of Technology where the names of distinguished Philosophers and Scientists are engraved contains that of one A P P O L O N I U S, of whom I can find no mention in any of the books of reference which I have consulted, so perhaps you will kindly tell me whether he was some Physicist of such small repute that he is not even mentioned in such standard works as the Encyclopaedia Britannica or Smith's Classical Distionary- or is this a new way of spelling A P O L L O N I U S, of Perga, known as the "Great Geometer" whose name would seem to be quite in keeping with those of the distinguished men by which his is surrounded?

Hoping for a reply, I remain,

Gentlemen,

Yours very truly,

(Sgd.) Dudley B. Fay.

The Tech, Friday, Dec 22, 1922
has an article about these
names. tells who the men
are.

October 14, 1924.

Dear Professor McDonald:

Your letter inquiring as to the names inscribed on our buildings is at hand. I am enclosing herewith a complete list of the names. In selecting these names, the members of our Faculty, of the Corporation and a few outside men prominent in certain branches of science were asked to submit lists of names of men prominent in certain lines of engineering. These lists were assembled with the result as shown on the enclosed sheet.

Yours sincerely,

Secretary to the President.

Professor P. B. McDonald
New York University
University Heights, N. Y.

Dear Professor Cross:

The new dormitories of the Institute are divided into six separate houses, the houses at the ends being occupied by fraternities. It is suggested that the other four houses should be named for some professors at the Institute and it is agreed that only the names of those no longer living should be considered. You have known the Institute so intimately from the beginning that I should greatly appreciate the benefit of your suggestion in this matter.

Yours sincerely,

May 3, 1917.

Professor Charles R. Cross.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASS.

May 7, 1917.

Dear Dr. Maclaurin:-

Regarding the naming of the buildings, for which I am glad to know that names are to be chosen wholly from those no longer living, the persons who first occur to me doubtless in part because of great personal friendship but also I am sure from pre-eminent merit are Professor William Ripley Nichols and Professor Silas W. Holman. Both of these are graduates of the Institute, both ceased from its service only with death in the one case and the necessities of fatal illness in the other, both in their teaching came in contact with substantially all the students who graduated from the Institute during their term of service, and both contributed to the scientific standing of the Institute by their research as well as by their teaching. They were both men of the highest character and fought most bravely against what they must have seen for a long time was an inevitable termination.

The instruction of Professor Nichols through many years in general chemistry was a magnificent discipline for the freshman classes and, as you well know, his work as a pioneer in sanitary chemistry is well remembered by the profession. Professor Holman was an invalid from a few weeks after his graduation, but for over twenty years he held himself closely to his work and developed the instruction in the physical and electrical laboratories to a degree of excellence which I do not think was approached elsewhere. Could he have been possessed of health and moderate leisure I am certain that he would have

-2-

taken a high position among investigators.

I have written regarding Professor Holman in several notices. The notes which I wrote following his death for President Crafts rather hastily form substantially his notice of that event in his annual report in 1910. Also a report to the Faculty which I do not think was printed. Also a notice published in the Proceedings of the American Academy. I will look up the dates of these if you chance to care for them.

Two other names that I think ought at some time to be commemorated are those of Professor John B. Henck and Professor William P. Atkinson. The former was a civil engineer of the old school perhaps, as some of his professional pupils thought, somewhat narrow but exceedingly thorough in all his teaching a man who never tolerated slackness or want of accuracy in any one but to whose insistence on rigorous exactness and promptness were most beneficial to every student. We young fellows of that far away day were exceptionally fortunate in that most of our teaching came from men of mature and large experience. Of course, Professor Allen and Professor Swain can give much fuller testimony than I regarding his professional work.

One matter, however, I can speak of with more knowledge than I think any one can do except perhaps Professor Lanza. The Institute owes more to him than any one can realize who is not familiar with the condition of matters at the time of the resignation of Professor Runkle from the presidency. When the

-3-

number of students and the income of the Institute had so fallen off that it was seriously proposed to discontinue the Institute there were long and perplexing discussions among the Faculty as to possible causes of this falling off. Some influential members felt that our standard was too high that we discouraged the entrance of special students of limited preparation and the like. Professor Henck most emphatically took the opposite position holding that the severity of requirements for graduation within reasonable limits and a refusal to allow students of insufficient preparation to enter the classes was our greatest safeguard in the end since the existence of so thorough a course would soon come to be recognized and gain to us the students whom we needed in numbers and in character. This was precisely what turned out after a few years to be the case. All this made a great impression upon me when I was so young a member of the Faculty and when I was seriously considering whether I had not best go elsewhere.

Professor Henck was an original member of the Faculty and continued such until he retired from teaching and active work.

He met most of the students as an instructor since he gave himself the instruction in surveying in the second year which practically all the students took.

Professor Atkinson whose name I mentioned next in order I always remember with the strongest feeling of personal regard since I think that every student who saw fit to attend to his instruction was a very great gainer thereby.

He was a man of very wide reading who gave unsparingly of his time to his pupils and tried most earnestly to impart an interest in something other than the routine of professional work. I regret that there were many in his classes who quite failed to appreciate the value of his lectures. I believe, however, that he had a great influence in the enlargement and upbuilding of the mind and character of a large body of men.

Professor Lewis M. Norton who originally took charge of the Course in Industrial Chemistry which he was I think chiefly instrumental in establishing and who died from pneumonia in 1893 was another most devoted and competent teacher. I do not know of any better testimony to his ability of which I am hardly competent to judge personally than the long period which elapsed between his death and the satisfactory filling of the position which he held.

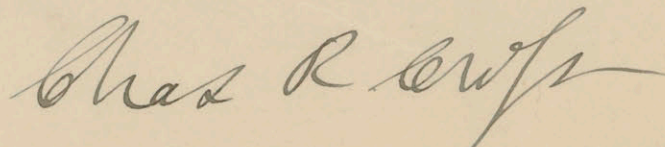
Professor Létang's work in the Architectural Department was recognized by all the students in that department at the time of his death.

I have not mentioned Professors who have left us more recently nor those who left the service of the Institute for educational or other work elsewhere. I assume also that the name of an ex-president would be more fittingly bestowed in a somewhat larger way.

I hope I have not overburdened you with suggestions.

I am

Yours very sincerely,



C. H. P. Tubody

Ampere	Briggs	X D'Alembert
Anthemius	Brindley	Dalton
Appolonius	Brunel	Dana
Arago	Bruneleschi	Daniell
✓ Archimedes	✓ Bulfinch	Darien
✓ Aristotle	X Bunsen	D'Arsonval
Arkwright		✓ Darwin
Armstrong		✓ Da Vinci
		✓ Davy
Babbage	✓ Carnot	Dawson
Babcock	Castigliano	Debeaumont
✓ Bacon Francis Roger	Cauchy	de Coucy
Baker	✓ Cavendish	De la Rive
Barlow	Clark	✓ Descartes
Bauschinger	✓ Clausius	de Réchas
X Becquerel	Cooper	✓ Diesel
X Bernouilli	✓ Copernicus	X Diophantus
Berzelius	✓ Corliss	Eads
X Bessel	X Coulomb	Eriessen
✓ Bessemer	Crompton	✓ Euclid
X Biot	Cuneus	✓ Euler
Bouguer	X Cuvier	Evans
X Bowditch		
✓ Boyle		
Bramante		

~~Fairbairn~~~~Grashof~~~~Ictinus~~✓ ~~Faraday~~~~Green~~~~Faure~~~~Guericke~~~~Ferraris~~✓ ~~Gutenberg~~~~Field~~✓ ~~Foucault~~~~Hargreaves~~X ~~Jacobi~~✓ ~~Fourier~~~~Harris~~~~Jacquard~~~~Francis~~✓ ~~Harvey~~✓ ~~Jenner~~✓ ~~Franklin~~~~Haaswell~~✓ ~~Joule~~✓ ~~Fresnel~~~~Fritz~~✓ ~~Helmholtz~~

Final
Choice
No. 21

✓ ~~Froude~~X ~~Hero~~✓ ~~Fulton~~X ~~Herschel~~~~Kekule~~~~Hertz~~✓ ~~Kelvin~~~~Hirn~~✓ ~~Kepler~~✓ ~~Galileo~~~~Hodgkinson~~~~King~~✓ ~~Galvani~~~~Holley~~✓ ~~Kirchoff~~X ~~Gauss~~X ~~Hooke~~~~Kirkaldy~~✓ ~~Gay Lussac~~~~Hopkinson~~~~Geissler~~~~Howe~~~~Lagrange~~~~Ghiberti~~~~Huggens~~~~Lalande~~~~Gibbs~~~~Hughes~~~~Langley~~~~Gilbert~~X ~~Humboldt~~✓ ~~Laplace~~✓ ~~Goodyear~~✓ ~~Huyghens~~~~Lavoiser~~~~Gordon~~X ~~Huxley~~~~Legendre~~~~Gramme~~✓ ~~Hypparchus~~X ~~Leibnitz~~

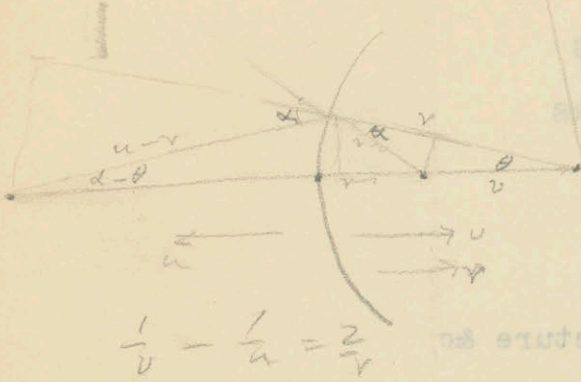
Lenz		
Leonardo	✓ Napier	Poggendorff
Liebeg	Nasmyth	Poincaré
X Linnaeus	Newcomb	Poisson
X Lister	Newcomen	Poncelet
Lobatchewski	✓ Newton	Powell
Logan	Noble	Preece
Lyell		✓ Priestley
		Prony
		✓ Ptolemy
Macadam	✓ Oersted	✓ Pythagoras
McCormick	X Ohm	
20 Malthus	Otto	
X Mariotte		
Mascart		
Maxwell	Pacinotti	✓ Rankine
Mendelsjeff	Palladio	Rebaux
X Mercator	X Papin	
X Michael Angelo	✓ Pascal	✓ Regnault
X Mill	✓ Pasteur	Reis
Moisson	Peltier	Reynolds
Morison	Perkins	X Ricardo
✓ Morse	Pierce	Ritter
Murdock	Plante	Reebing
Musschenbrock	2 X Plato	X Roentgen

Rowland	Trevithick	Weyrauch
X Ruhmkorff	Turgot	X Wheatstone
Runford	Tycho Brahe	Whitney
Russell	X Tyndal	Whitworth
		Wilde
Scheele		Wohler
Sellers	X Vauban	Woelff
X Shakespeare	Van't Hoff	Worthington
Siemens	Varley	Wren
Smeaton	X Venturi	Wright
Smith (Adam)	Vermuyden	
X Stevens	Vieta	<u>Living</u>
Edwin	Vinci	Bell
John	X Virchow	Edison
Robert	Volta	Goethals
Stephenson	Von Guericke	Marconi
George		Rayleigh
Robert		
Stokes		
Sturgeon		
Suess		
X Tait	Watt	
Taylor	Webb	
Telford	Weber	
Thales	Weisbach	
Torricelli	Werner	
	Westinghouse	

MEN OF PROGRESS
AMERICAN INVENTORS

Dr. Morton	Etherization
B. O. Gardus	Iron Architecture &c
Colt	Revolvers
McCormick	Reapers
Saxton	Mint and Coast Sur. Mach.
Peter Cooper	Gelatine &c
✓ Goodyear	Vulcanizing Gum Elastic
✓ Prof. Henry	Electricity as a Motor
Mott	Works in Iron Fuel &c
Dr. Nott	Management of Heat &c
✓ Ericsson	Caloric Engine, Monitors &c
Sickles	Steam Cut Off &c
✓ Morse	Electric Telegraph
Burden	Horse Shoe Machine
Hoe	Rotary Press &c
Bigelow	Carpet Loom &c
Jennings	Friction Matches
Blanchard	Eccentric Lathe &c
Howe	Sewing Machine

$$\frac{1}{2} - \frac{1}{v} = \frac{2}{r}$$



$$\frac{1}{v} - \frac{1}{u} = \frac{2}{r}$$

$$u(u-v) = r(u-v) \Rightarrow u = r$$

$$(u-v)(u-v) = r \theta$$

$$u(u-v) = r \theta$$

$$u(u-v) = r \theta$$

$$\frac{v}{u} = \frac{r-v}{u}$$

$$\frac{v}{u} = \frac{r-v}{u}$$

Dr. Norton

$$\frac{u-v}{u} = \frac{r-v}{u}$$

$$1 - \frac{v}{u} = \frac{r-v}{u}$$

$$\frac{r}{u} + \frac{v}{u} = 1$$

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$$u(u-v) = r \theta$$

$$u(u-v) = r \theta$$

$$\frac{v}{u} = \frac{r-v}{u}$$

$$\frac{v}{u} = \frac{r-v}{u}$$

$$1 - \frac{v}{u} = \frac{r-v}{u}$$

$$\frac{r}{u} + \frac{v}{u} = 1$$

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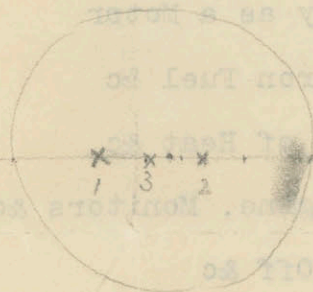
$$\frac{r}{u} + \frac{v}{u} = 1$$

$$\frac{r}{u} + \frac{v}{u} = 1$$

$$\frac{r}{u} + \frac{v}{u} = 1$$

$$\frac{r}{u} + \frac{v}{u} = 1$$

$$\frac{r}{u} + \frac{v}{u} = 1$$



$$\frac{1}{v} - \frac{1}{u} = \frac{2}{r}$$

$$(1) \quad \frac{1}{v} = \frac{2}{r} \quad v = \frac{r}{2}$$

$$(2) \quad -\frac{2}{3r} + \frac{1}{v} = -\frac{2}{r} = -\frac{6}{3r} \quad ; \quad \frac{1}{v} = -\frac{4}{3r} \quad ; \quad v = -\frac{3r}{4}$$

$$(3) \quad \frac{4}{5r} + \frac{1}{v} = \frac{2}{r} = \frac{10}{5r} \quad ; \quad \frac{1}{v} = \frac{6}{5r} \quad ; \quad v = \frac{5r}{6}$$

$$(4) \quad -\frac{6}{7r} + \frac{1}{v} = -\frac{2}{r} = -\frac{14}{7r} \quad ; \quad \frac{1}{v} = -\frac{8}{7r} \quad ; \quad v = -\frac{7r}{8}$$

$$\frac{1}{v} - \frac{1}{u} = \frac{2}{r} \quad ; \quad \frac{1}{v} = \frac{2}{r} + \frac{1}{u} \quad ; \quad v = \frac{r}{\frac{2}{r} + \frac{1}{u}} = \frac{ru}{2u+r}$$

Hoe

Riglow

Jerning

Blanchard

Howe

✓	✓	Ampere	Briggs	D'Alembert
✓		Anthemius	Brindley	✓
		Appolonius	Brunel	✓
		Arago	Bruneleschi	Daniell
✓	✓	✓	✓	Darlen
✓		✓	Bunsen	D'Arsonval
✓		✓		✓
		Armstrong		Da Vinci
		Babbage	✓	✓
		Babcock	Carnot	Dawson
✓		✓	Castigliano	Debeaumont
		→ Francis Roger	Cauchy	de Ceucy
✓		Baker	Cavendish	De la Rive
✓		✓	Clark	✓
✓		✓	✓	Descartes
✓		✓	Clausius	de Rochas
		Bauschinger	Cooper	✓
		Becquerel	✓	Diesel
✓		✓	✓	Diophantus
✓		✓	✓	
		Bernouilli	✓	
		Berzelius	✓	Eads
✓		✓	Coulomb	✓
✓		✓	Crompton	✓
		Bessel	Cuneus	✓
✓		✓	Cuvier	✓
✓		Biot		✓
✓		✓		✓
✓		Bouguer		✓
		Bowditch		✓
✓		✓		✓
		Boyle		✓
		Bramante		✓

✓	✓ Fairbairn	X	✓ Grashof	Ictinus
✓	✓ Faraday		Green	
	Faure		Guericke	
	Ferraris	✓	✓ Gutenberg	
X	✓ Field			
✓	✓ Foucault			
	Fourier	✓	✓ Hargreaves	Jacobi
X	✓ Francis		Harris	X ✓ Jacquard
✓	✓ Franklin		Harvey	Jenner
	Fresnel		Haswell	✓ Joule
X	✓ Fritz	✓	✓ Helmholtz	
	Froude		Hero	
✓	✓ Fulton	X	✓ Herschel	Kekule
		✓	✓ Hertz	✓ Kelvin
			Hirn	✓ Kepler
✓	✓ Galileo	(a)	Hodgkinson	King
✓	✓ Galvani		Holley	Kirchoff
	Gauss		Hooke	Kirkaldy
✓	✓ Gay Lussac		Hopkinson	
	Geissler	X	✓ Howe	✓ Lagrange
	Ghiberti		Huggens	Lalande
X	✓ Gibbs		Hughes	X ✓ Langley
	Gilbert	X	✓ Humboldt	✓ Laplace
✓	✓ Goodyear	✓	✓ Huyghens	Lavoisier
	Gordon	X	✓ Huxley	Legendre
	Gramme		Hypparchus	X ✓ Leibnitz

Lenz			
Leonardo	/	✓	Napier
Liebeg	/	✓	Nasmyth
Linnaeus	/	✓	Newcomb
Lister	/	✓	Newcomen
Lobatchewski	/	✓	Newton
Logan			Noble
Lyell			
			Poggendorff
			Poincare
			✓ Poisson
			Poncelet
			Powell
			Preece
			Priestley
			Prony
			✓ Ptolemy
			✓ Pythagoras
Macadam			Oersted
McCormick	X	✓	Ohm
Malthus	X	✓	Otto
✓ Mariotte			
Mascart			
✓ Maxwell			Pacinotti
Mendelejeff			Palladio
✓ Mercator			Papin
✓ Michael Angelo			Pascal
Mill	/	✓	Pasteur
Moisson			Peltier
Morison			Perkins
✓ Morse			Pierce
Murdock			Plante
Musschenbrock	X	✓	Plato
			Rankine
			Rebaux
			✓ Regnault
			Reis
			Reynolds
			Ricardo
			Ritter
			✓ Roebling
			✓ Roentgen

✓	✓ Rowland	X	✓ Trevithick	X	✓ Weyrauch
X	✓ Ruhnkorff		Turgot		Wheatstone
✓	✓ Rumford		Tycho Brahe	✓	✓ Whitney
	Russell	X	✓ Tyndal	X	✓ Whitworth
					Wilde
				✓	✓ Wohler
	Scheele			X	✓ Woolff
	Sellers		Vauban		Worthington
✓	Shakespeare		✓ Van't Hoff		Wren
✓	✓ Siemens		Varley	X	✓ Wright
X	✓ Smeaton	X	✓ Venturi		
	Smith (Adam)		Vermuyden		
	Stevens		Vieta		<u>Living</u>
	Edwin		Vinci		Bell
	John		Virchow		Edison
✓	✓ Stephenson		✓ Volta		Goethals
	George				Marconi
	Robert		Von Guericke		Rayleigh
	Stokes				
	Sturgeon				
	Suess				
X	✓ Tait	✓	✓ Watt		
	✓ Taylor		Webb		
	Telford		Weber		
	Thales	X	✓ Weisbach		
✓	✓ Torricelli		Werner		
		X	✓ Westinghouse		

Ampere
 Anthemius
 Appolonius
 Arago
 Archimedes
 Arsitotle
 Arkwright
 Armstrong

 Babbage
 Babcock
 Bacon
 Friar
 Francis
 Robert
 Baker
 Barlow
 Bauschinger
 Becquerel
 Bernouilli
 Berzelius
 Bessel
 Bessemer
 Biot
 Bouguer
 Bowditch
 Boyle
 Bramante

Briggs
 Brindley
 Brunel
 Bruneleschi
 Bulfinch
 Bunsen

 Carnot
 Castigliano
 Cauchy
 Cavendish
 Clark
 Clausius
 Cooper
 Copernucus
 Corliss
 Coulomb
 Crompton
 Cuneus
 Cuvier

D'Alembert
 Dalton
 Dana
 Daniell
 Darien
 D'Arsonval
 Darwin
 Da Vinci
 Davy
 Dawson
 Debeaumont
 de Coucy
 De la Rive
 Descartes
 de Rochas
 Diesel
 Diophantus

 Eads
 Ericsson
 Euclid
 Euler
 Evans

Fairbairn	Grashof	<i>Delimitus</i> Hypparchus
Faraday	Green	
Faure	Guericke	
Ferraris	Gutenberg	Ictinus
Field		
Foucault		
Fourier	Hargreave S	Jacobi
Francis	Harris	Jacquard
Franklin	Harvey	Jemmer
Fresnel	Haswell	Joule
Fritz	Helmholtz	
Froude	Henry	
	Hero	
Fulton	Herschel	Kekule
	Hertz	Kelvin
	Hirn	Kepler
Galileo	Hodgkinson	King
Galvini	Holley	Kirchoff
Gauss	Hooke	Kirkaldy
Gay Lussac	Hopkinson	
Geissler	Howe	Lagrange
Ghiberti	Huggens	Lalande
Gibbs	Hughes	Langley
Gilbert	Humboldt	Laplace
Goodyear	Huygens	Lavoisier
Gordon	Huyghens	Legendre
Gramme	Huxley	<i>et</i> Liebnitz

Hypofluor

Lenz		
Leonardo	Napier	Poggendorff
Liebeg	Nasmyth	Poincaré
Linnaeus	Newcomb	Poisson
Lister	Newcomen	Poncelet
Lobatchewski	Newton	Powell
Logan	Noble	Preece
Lyell		Priestley
		Prony
		Ptolemy
		Pythagoras
Macadam	Cersted	
McCormick	Ohm	
Malthus	Otto	
Mariotte		
Mascart		
Maxwell	Pacinotti	Rankine
Mendelejeff	Palladio	Rayleigh <i>Rankine</i>
Mercator	Papin	Rebaux
Michael Angelo	Pascal	Regnault
Mill	Pasteur	Reis
Moisson	Peltier	Reynolds
Morison	Perkins	Ricardo
Morse	Pierce	Ritter
Murdock	Plante	Roebbling
Musschenbrock	Plato	Roentgen

Rowland	Trevithick	Weyrauch
Ruhmkorff	Turgot	Wheatstone
Rumford	Tycho Brahe	Whitney
Russell	Tyndal	Whitworth
		Wilde
		Wohler
Scheele		Woolff
Sellers	Vauban	Worthington
Shakespeare	Van't Hoff	Wren
Siemens	Varley	Wright
Smeaton	Venturi	
Smith (Adam)	Vermuyden	
Stevens	Vieta	<u>Living</u>
Edwin	Vinci	Bell
John	Virchow	Edison
Robert	Volta	Goethals
Stephenson	Von Guericke	Marconi
George		<i>Ranleigh</i>
Robert		
Stokes		
Sturgeon		
Suess		
Tait	Watt	
Taylor	Webb	
Telford	Weber	
Thales	Weisbach	
Thomson	Werner	
Torricelli	Westinghouse	

Some Names on the Boston Public Library

Galvani	Arago	Malthus
Volta	Berzelius	Ricardo
Ampere	Gay-Lussac	Mill
Oersted	Lavoisier	Lister
Faraday	Regnault	
Guericke	Smeaton	
Torricelli	Bacon	
Mariotte	Descartes	
Rumford	Diophantus	
Bruneleschi	Euclid	
Ghiberti	Archimedes	
Bramante	Napier	
Michael Angelo	Huygens	
Plato	Euler	
Aristotle	D'Alembert	
Galileo	Legendre	
Kepler	Carnot	
Laplace	Lagrange	
Copernicus	Helmholtz	
Arkwright	Newton	
Fulton	Davy	
Morse	Priestley	
Leonardo da Vinci	Bunsen	
Darwin	Virchow	

Some Names on the Boston Public Library

Galvani

Volta

Ampere

Oersted

Faraday

Guericke

Torricelli

Mariotte

Rumford

Bruneleschi

Ghiberti

Bramante

Michael Angelo

Plato

Aristotle

Galileo

Kepler

Laplace

Copernicus

Arkwright

Fulton

Morse

Leonardo da Vinci

Darwin

Arago

Berzelius

Gay-Lussac

Lavoisier

Regnault

Smeaton

Bacon

Descartes

Diophantus

Euclid

Archimedes

Napier

Huygens

Euler

D'Alembert

Legendre

Carnot

Lagrange

Helmholtz

Newton

Davy

Priestley

Bunsen

Virchow

Malthus

Ricardo

Mill

Lister

52 names
389 letters

6. abt 7 1/2 letters
per name

not here

Pasteur

Franklin

Watt

case should be named but probably
in connection with general engineering

Bouguer

Author of *Traité du Navire* 1746; reputed
by French to be the founder of theory of
naval architecture.

Stevens

John - competitor of Fulton - first user
of screw-propeller.

- x Robert Livingston - builder of steamships
- Edwin A. Builder of steam battery (ship)
- founder of Stevens Institute.

[John] Scott Russell - naval
architect and author - designer of
Great Eastern.

[Wm. V.] Webb - naval architect
and builder - founder of Webb
Academy.

From
Course II

Names of men noted in
shipbuilding and naval architecture

[Robert] Fulton

Introduced steam navigation on the
Hudson with the Clermont

William Froude

To avoid confusion with the historian
it might be necessary to give full
name.

Noted for experimental and
theoretical work in propulsion of
ships especially in towing tanks

[Wm. J. Macquorn] Rankine

Developer of theoretical naval
architecture. He is better known
for his other writings especially
in thermodynamics and should in any

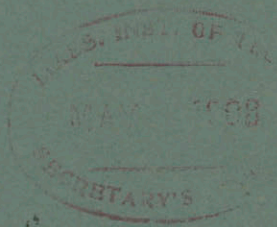
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Instructor.....
Name..... Course.....
Subject..... Year.....
Date.....

Is this an examination for **ADVANCED STANDING**?.....

In case it is an examination for advanced standing, state briefly at the beginning of what you write, the kind and amount of your preparation.

If a condition examination, when did you take the subject in class, and with what instructor?.....
.....



V
W
V

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V
C

V

LINNAEUS. (1707-1775)

Linnaeus

Adams & Kerwin

Asaph Hall (was satellite of Jupiter)

3 { Newcomb
Hill
Herschel

Metallurgy. Linderqvist. Agricola

→ Werner (was connected with
1750-1804 first Technical School (Bergakademie) in Freiberg
that was essential

father of German geology. First official student
of the Chemical Society. Director of the
Bergakademie Freiberg. His work on
mineralogy was essential to the development of the
science of geology.

Bernard Palissy (1517-1589)

→ Agricola (1494 -)

→ Cort published on gunpowder (1574)

Nasmyth - steam hammer

Neilson 1525 father of hot blast method
of iron making

Groth (1276-1336) - one of the best
one-sided architects. (But he is
a specialist rather than a general architect
(but Rhodes is a very successful architect)
The Palazzo was attributed only architect of
Florence. Lived and worked in the city - that
he found his place as part of the
the growth of his manner of architecture of which
the one remaining is among the most original in
design created in domestic architecture ever conceived
of man. This was the west part of the Cathedral or
the detached Campanile - The Campanile is
the common design as well as common design
of its design, in its form perfect and perfect but
based - in the most perfect crown & monument of
a stage, monument came

Parthenon completed 438 BC

Vitruvius work dedicated to Augustus, shows
about when he lived

Wren 1621-1723

Brunelleschi 1377-1446

<u>Arwoldt</u>	<u>Newton</u>	<u>Larklin</u>	<u>Pasker</u>	<u>Lamson</u>
BC. 624. Shales	1546 W. K. K. K.	460. A. C. Democris	1578 Harey	1626 Boyle
- 554 Refuge	1564 Galileo	470. B. C. Plate	1749 Jenner	1781 B. K. K. K.
- 330 Enslid	1571 Kepler	1120 Averroes	1707 Linnæus	1753 B. K. K. K.
- 260 Appollonio	1404 Euler	1247 Bacon	1494 Agricola	1767 Dalton
- 200 Hipparchus	1135 Legendre	1596 Descartes	1426 Hutton	1779 Berzelius
AD. 168 Ptolemy	1749 Laplace	1623 Pascal	1797 Lyell	1778 Gay Lussac
1765 Linnæus	1717 D'Alembert	1680 Napier	1813 Dana	1803 Lillie
1521 Columbus	1738 Herschel	1731 Copernicus	- Braumont	1811 P. K. K. K.
1524 Kelvin	1819 Adam	1775 Davy	1813 Bessemer	1834 Mendeleeff
Gibbs	- Poincaré	1811 Regnault	- Suess	1835 Perkin
	- Hill			1852 W. K. K. K.
(10)	(10)	(10)	(10)	(10)

<u>Copernicus</u>	<u>Darwin</u>	<u>Leonardo</u>	<u>Archimedes</u>	<u>Faraday</u>
1478. Black	1402 Eyewelle	1450. Schinus	- Archimedes	1540 Gilbert
1453 Rumph	1408 Spicelli	- 500 Phidias	1736. Watt	1730 Coulomb
(1824) Carnot	1456 Chillem	- 50 Vitruvius	- Lenz	1745 Volta
1515 Jule	1473 Young	AD. 532. Anthonis	(1870) Otto	1777 Volta
1822 Clausius	1473 Daguerre	- Conroy	1465 Galileo	1779 Ampere
(1481) Stephenson	1486 Anagn	1276 Grotto	(1860) Fresnel	1781 Ohm
1454 Telford	1455 Leonard	1377 Brunel	1432 Archimedes	1781 Henry
1457 W. K. K. K.	1824 Kirchhoff	1631 Wren	1466 Perkins	1831 Maxwell
1805 Leaps	1845 Rouland	18- Bulfinch	(1500) Whitney	1791 Morse
1820 Rankine	- 1820 Higgins	1822 Blanchard	1489 Franklin	1857 Morse
1820 Endo	Leonardo's		Wright	1816 Siemens
Faraday	or a 6 part		1859 Franklin	(1870) Gramme
(10)	hypo	(10)	(11) ?	(10)

Look up.

✓ Cavendish (Chem or Physics)

✓ Bernoulli

✓ Van't Hoff, Kettle

→ ✓ Coulomb.

Fairbairn - date - basis of civil & mechanical

Reynolds - date - work

Spelling of Huygens - Huygens (class)

Huygens
(1629-1695)

Van't Hoff 1852 - space of fluid assumed with two
degrees of freedom. Law of doubling of
stress - isomers, also identified with
development of gas that does analysis must be recognized
before the state of equilibrium is stable & it can be done for

Fairbairn (1759-1844)

Mill conduct, ship conduct, Canal navigable
(Water-tight conduct of iron vessels)

- the development of the use of this method (draw & look
at method and its use of iron, development of Fairbairn

depends on strength of iron, - you had already
premier plan - the basis of engineering

- bridge etc

No. 11 - the
Huygens
(1629-1695)

Franz

Euclid, Torricelli, Chladni	25 letters
Huygens, Young, Anax, Legendre	24 —
Diophantus, Kirchhoff, Poisson	24 —

Arnold

Shales, Pythagoras, Euclid	22
Apollonius, Hipparchus, Ptolemy	27
Euclid, Helmholtz, Kelvin, Gibbs	27

Ward

Lycho Brake, Galileo, Kepler	23
Euler, Lagrange, Laplace, D'Alembert	29
Herschel, Adams, Poisson, Hill	25

Larkin

Democritus, Plato, Aristotle, Bacon, Descartes	28
Wassenaar, Pascal, Napier, Cauchy	21
Davy, Foucault, Regnault	20

Robinson

Haney, Jenner, Linnæus	20
Agricola, Hudson, Lyell, Dana	23
de Beaumont, Suess, Bessemer	24

Franklin

Democritus, Plato, Aristotle	23
Bacon, Descartes, Pascal	20
Napier, Davy, Foucault, Regnault	26

Regnault (~~1811-1870~~)
¹⁸¹⁶⁻¹⁸⁷⁵

First devoted to chemistry, afterwards
physics

Best known for comprehensive of specific heats
of all elements & many compounds

→ Principle of Boyle's law
Law of Boyle's law to determine

Henry (1797-1848)

Bunsen (1811-1898) - Invented a series
of lamps - first gas lamp with alcohol

Spectroscopy - one of first to approach
spectroscopy - value of first law to the student.

Wells

Samuel

Gilbert, ^{Combs} Volta, oersted, ampere	25
^{ampere} Ohm, Henry, Maxwell (Combs)	21
Norse, Hess , Siemens, Erman, Harley	23

Samuel

Black, Rutherford, Carnot, Joule	23
Clausius, Helmholtz, Stephenson	25
Saunders, Lessel, Rankine, Eads	24
Rankine, Eads, de la Rive	

Samuel

Boyle, ^{Combs} Priestley, Dalton	28
Bergelius, Gay Lussac, Wohler ^{Luigi}	30
Bunsen, Sp. Brandegee, Berthollet, ^{van't Hoff}	31

Lemardis

Schimper, Plücker, Vitruvius	23
Arthenius, de Conroy, Girard	22
Brunelleschi, Kren, Buepich	24

Archimedes

Euler, Wall, de Lard, Otto	24
Fulmer, Lunde, Ardenjot	21
Perkins, White, Knight	20

Greek	||||| ||| 11 ✓	12
English	|||| ||| ||| ||| ||| ||| 11	32
French	|||| ||| ||| ||| |||	23
German	|||| ||| ||| 2	15
Italian	|||| 11	7
Armenian	|||| ||| |||	13
Others	|||| ||| 1	11

115

Engineering	19
Arch	10
General	8
Education	12
Chem	13
Physics	14
Technical	

~~Gilbert~~

Aristotle

10	{	Thales, Pythagoras, Euclid,	22
		Apollonius, Hipparchus, Ptolemy,	27
		Fouquier, Helmholtz, Kelvin, Gibbs.	27

Newton

11	{	Tycho Brahe, Galileo, Kepler,	23
		Euler, Lagrange, Laplace, D'Alembert,	29
		Herschel, Adams, Poincaré, Hill.	25

Franklin

10	{	Democritus, Plato, Averroes,	23
		Bacon, Descartes, Pascal,	20
		Wapier, Davy, Foucault, Regnault.	26

Pasteur

10	{	Harvey, Jenner, Linnæus,	20
		Agricola, Hutton, Lyell, Dana,	23
		def Beaumont, Lussac, Bessemer.	24 2

Lavoisier

12	{	Boyle, Cavendish, Priestley, Dalton,	28
		Berzelius, Gay Lussac, Wohler, Liebig,	30
		Bunsen, Mendelejeff, Perkin, van't Hoff.	31

Faraday

12	{	Gilbert, Coulomb, Volta, Oersted,	26
		Ampere, ^{ohm} Henry, Maxwell,	21
		Morse, Siemens, Gramme, Hertz.	23

Archimedes

10	{	Euklides, Watt, Laval, Otto,	22
		Fulton, Foucault, Arkwright,	21
		Perkins, Whitney, Wright.	20

see also

<u>Leonardo</u>	9	Schius, Rhodia, Vitruvius,	23
		Authenticus, de Coucy, Giotto,	22
		Brunelleschi, Wren, Belfrick.	24
<u>Darwin</u>	10	Everette, Lovicelli, Chladni,	25
		Huygens, Young, Arago, Fresnel,	24
		Daguerre, Kirchhoff, Rowland.	24
<u>Copernicus</u>	10	Black, Rumford, Joule, Clausius,	25
		Carnot, Lepold , Lepold ,	
		Carnot, Lepold, Stephenson,	23
		Friston ^{de} Lesseps, Rankine, Eads	27 20
<u>Archimedes</u>	11	Eutenberg, Wall, Arkwright	22
		Whitney, Perkins, Fulton, Linde , ^{Fairbairn} ,	29
		Foude , Otto, de Lard, Wright	23

The Kelvin's first hypothesis will be for Authenticus for Authenticus
 & omitted Otto (but I had omitted this in
 - ch)

Names on Altars of Parliamt

Thales, Pythagoras, Euclid, ^{Aphellonius}
Aristotle
Apollonius, Hipparchus, Ptolemy,
Fouquier, Helmholtz, Kelvin, Gibbs.

Tycho Brahe, Galileo, Kepler,
Newton
Euler, D'Alembert, Lagrange, Laplace,
Herschel, Adams, Hill, Poincaré.

Democritus, Plato, Averroes,
Franklin
Bacon, Descartes, Pascal,
Napier, Davy, Regnault, Foucault.

Harvey, Linnæus, Jenner,
Pasteur
Agricola, Hutton, Lyell, Dana,
De Beaumont, Suess, Bessemer.

Boyle, Cavendish, Priestley, Dalton,
Lavoisier
Gay Lussac, Berzelius, Wöhler, Liebig,
Bunsen, Mendelejeff, Perkin, van't Hoff.

Gilbert, Coulomb, Volta, Oersted,
Faraday
Ampere, Ohm, Henry, Maxwell,
Morse, Siemens, Gramme, Hertz.

Gutenberg, Watt, Arkwright,
Archimedes
Whitney, Perkins, Fulton, Fairbairn,
Froude, De Laval, Wright.

Otto

(over)

Ictinus, Phidias, Vitruvius,
Anthemius, De Coucy, Giotto,
Brunelleschi, Wren, Bulfinch. } Leonardo da Vinci

Guericke, Torricelli, Chladni,
Huygens, Young, Arago, Fresnel,
Daquerre, Kirchhoff, Rowland. } Darwin

Black, Rumford, Joule, Clausius,
Carnot, Telford, Stephenson,
De Lesseps, Rankine, Eads. } Copernicus