

October 10, 1917.

Dear Professor Chambers:

Pursuant to a motion passed at a meeting of the Faculty of the Towne Scientific School yesterday, I have appointed the following Committee to consider the advisability of admitting women students to all Departments of the Towne Scientific School:-

Professor Chambers, Chairman
Professor Whitney
Professor Clewell
Professor Lukens
Professor Grandlienard
Professor Kavanaugh

I hope that you will be willing to serve on this Committee and to act as Chairman.

Very truly,

Dean.

Professor George G. Chambers,

Chairman Admission Committee.

RESIDENCE AND MAIL ADDRESS
ORCHARD AVENUE
MOYLAN, PA.

OCT 17 1917

PHILIP R. WHITNEY
DEPARTMENT OF ARCHITECTURE
UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA

October 15, 1917.

Dr. John Frazer, Dean,
Towne Scientific School,
University of Pennsylvania,

My dear Dr. Frazer,-

In reply to your letter of the 10th, I would say that I shall be glad to serve you on the Committee to consider the advisability of admitting women to all Departments of the Towne Scientific School.

Very truly yours,

Philip R. Whitney

November 7, 1917.

Dr. Frank J. Goodnow, President,
Johns Hopkins University,
Baltimore, Md.

My dear President Goodnow:

A Committee of the Faculty of the Towne Scientific School, University of Pennsylvania, is considering the advisability of admitting women to the various courses given under this division of the University, namely, the Engineering courses, the course in Architecture and the course in Chemistry.

This Committee feels that the experience of other universities having similar courses would be available.

If your institution has had women as students in such courses, we would appreciate it very much to receive a brief statement from you in regard to your experience. I should welcome any perfectly frank expression of opinion you may care to make.

In particular we have felt the need of information as to how many women students you have had in such courses during the last eight or ten years, how much of a demand there has been from women for opportunities to take such courses, how that demand has varied in recent years, what women graduates of technical courses have accomplished along the lines for which they were specially prepared, and whether there were any phases of the curriculum which have been found impossible, or highly unfeasible or undesirable for women students.

If your institution has not had any women students in such courses, we would be glad to have your opinion as to the advisability of admitting them, also as to whether you believe there is any demand for the training of women along these lines, either from women themselves or from the professions, occupations or industries which they would enter.

Very truly,

Thayer School of Civil Engineering,

**CONNECTED WITH DARTMOUTH COLLEGE,
POST GRADUATE COURSE**

ROBERT FLETCHER, Ph. D., C. E., DIRECTOR, Prof. of Civil Engineering
J. V. HAZEN, C. E., Prof. of Civil Eng. on Chandler Foundation
CHARLES A. HOLDEN, C. E., Prof. of Civil Engineering
F. E. AUSTIN, B. S., E. E., Prof. of Electrotechnics
SYDNEY L. RUGGLES, C. E. Instructor

NOV 15 1917

Hanover, N. H. November 13th, 1917.

John Fraser, Dean,
Towne Scientific School,
University Pennsylvania,
Philadelphia, Pa.

Dear Sir:-

Replying to you favor of November 8th, I have to say that I can best answer your inquiry by the familiar phrase in two words, "nothing doing."

Perhaps this would be too blunt and might appear discourteous, so I will add that I have never yet met a woman who wanted to be an engineer. Did't suppose there was anything in mortar boards, or steel reinforcements, or bending moments, testing machines and least squares that would appeal to the fair sex. So with us the question is not even "Academic". We have never even thought of it.

I suppose we are behind the times for we have'nt any woman suffragists or picketers in this community. Our ladies are too busy with the Red Cross, Ambulance and Hospital Service, Food Conservation and other vital questions to give any attention to such vagaries.

I think this answers your inquiries.

Yours very truly,

Robert Fletcher

RF/V

November 6, 1917.

President H. F. Pendleton,
Wellesley College,
Wellesley, Mass.

My dear Miss Pendleton:

I regret very much that by reason of a somewhat long meeting on Saturday, I was unable to discuss with you the matter concerning which I spoke to you just before the meeting began, as I am very anxious to have your views on the matter.

The Towne Scientific School of the University of Pennsylvania has under discussion the question as to the advisability and feasibility of admitting women students to all Departments of the Towne Scientific School. In this School are the departments of Architecture, Chemistry, Chemical, Civil, Electrical and Mechanical Engineering.

While as I indicated to you there have been few women who have aspired to the profession of Engineering, the question of admitting them to all of our courses is one which it seems to me should be given very careful consideration.

In view of your wide experience in dealing with the education of young women, I shall be very glad to have the benefit of a very frank statement of opinion in regard to the advisability of this matter. Instead of asking a number of questions, I shall feel perfectly satisfied if you will simply give me in a general way what your attitude is toward the matter.

In discussing this matter in a preliminary way recently, our Committee found that probably in a few courses in Engineering there were practical though not insurmountable difficulties. I presume that in reference to the courses in Chemistry and Architecture, it would be somewhat difficult to adduce logical reasons why women students should not be admitted. The question of admitting them to Engineering courses however involves certain considerations which may place these courses in a somewhat different category from the others.

DEC 3 - 1917

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF CIVIL ENGINEERING
BERKELEY

Nov. 24, 1917

Dean John Frazer
University of Pennsylvania
Philadelphia, Pa.

Dear Sir:

I have received your letter of Nov. 9 with reference to the advisability of admitting women students to your courses in engineering, architecture and applied chemistry. I have delayed a reply until I could collect certain numerical data.

Since the establishment of the University of California (more than fifty years ago) it has been a law that women are eligible to all courses of instruction, provided they have satisfied the proper prerequisites. But though they have had this right, it is a fact that very few women have elected courses in engineering. A somewhat larger, but still a relatively small number of women have taken individual engineering subjects, such as Elementary Surveying, Machine Drawing, etc. During the last ten years there has been no woman candidate for a B.S. degree in any of our engineering colleges, (Civil, Mining, Electrical and Mechanical Engineering). I know of only one woman graduate of the engineering colleges. She was graduated from the Civil Engineering course in 1894; subsequently studied architecture and is now rated a successful architect in San Francisco.

Until 1910 few women enrolled for any individual engineering subjects; even Surveying, which has already been mentioned. During the last seven years, however, an increasing number of women have entered special engineering classes though they are not candidates for engineering degrees. This is explained by the fact that there are always a number of women registered in such departments as Agriculture, Home Economics, Architecture, Commerce and Chemistry. Women studying in these groups take special work in engineering either because of prescribed or because of elective studies. Therefore the Civil Engineering department, for

example, offers special courses in Strength of Materials, Elements of Framed Structures and the Principles of Building Design for students in Architecture, whether they be men or women. Special surveying courses for students in Architecture and Agriculture always have a few women. The Civil Engineering department offers special courses in sanitary laboratory dealing with ventilation, plumbing, garbage and refuse disposal, water supply, etc., which courses are elected by women in Home Economics. ~~While~~ ^TTherefore an increasing number of women take subjects offered by the Civil Engineering department, ^{but} since special sections of instruction are offered to them, they do not sit in the same rooms with the regular engineering students.

Fifteen years ago when our Architectural School was first established, the same sections of Strength of Materials and Elements of Framed Structures were open to students in Civil Engineering and Architecture. Thus, at that time a few women sat in the junior and senior courses with the Civil Engineering men. As time passed it became desirable to separate the students in Architecture from those in Civil Engineering, so that for engineers the course could emphasize engineering design, while the similar course in Architecture had building construction in mind. For these reasons the students were separated, and not because in one group there were women.

I append the following figures indicating the number of women registered this semester in certain courses. In the surveying course C. E. 1e, especially offered for students in Architecture and Agriculture, there are 6 women registered out of a total of 60. In the freshman surveying course C.E. 1a for engineers there are no women, in a total of 188. In Civil Engineering course 125 (Plumbing, Heating, Ventilating and Illumination) especially designed for students in Home Economics, there are 22 women in a total of 23; and all these women are enrolled in the College of Letters and Science. In course Civil Engineering 127 (Sewage

Disposal and Water Supply) especially for students in Architecture, there are 2 women in a total of 11. In course Civil Engineering 107e, a senior course in building construction especially offered for advanced students in architecture, there is one woman in a total of three. In course Civil Engineering 118a, a course in Strength of Materials and Elements of Design, especially offered for students in Architecture, there are two women in a total of seven.

I believe that there are no women students taking courses offered in our department of Mining, and practically there never have been any. But if you wish direct information, address Prof. F. H. Probert, Head of our Mining Department. Similarly I have made no mention of courses offered in our Department of Mechanical and Electrical Engineering, because the percentage of women taking courses there is extremely small; for exact statements, address Prof. C. L. Cory, Dean of the College of Mechanics.

There always have been a reasonable number of women in the courses in Architecture and Agriculture. In Architecture in the academic year 1915-16 there were 15 women in a total of 69, of all students enrolled. The similar figures for 1916-17 were 14 women in a total of 60, and for the current year 7 women in a total of 27. If you wish a statement regarding women in Agriculture address direct Dean T. F. Hunt of our College of Agriculture. In fact I advise you to address him.

Most of the figures which I have given you are for the current academic year and therefore relatively indicate high percentages of women in the named courses. In normal years naturally there would be more men; for the number of men in our technical courses and in Architecture, particularly in the upper years, has been reduced to less than one-half and in some cases to one-third.

I have no information before me regarding women registered in technical chemistry. You might address direct Dean G. N. Lewis.

Summarizing - there have been practically no women desiring full instruction in engineering. There will always be a number of women in Architecture and Agriculture. The engineering and other technical departments must offer certain courses of a special treatment for women and men in such subjects as Architecture, Home Economics, Agriculture, etc. Thus far at California the number of women has never been large in any of these courses, except for special Civil Engineering sanitary subjects for students in Home Economics.

You ask for my personal judgment regarding the fitness of women graduates for engineering practice. From my experience of twenty-five years I should not encourage women to complete courses in engineering, such as Civil, Mining, Mechanical, Electrical. Positions open to them are restricted in character, usually being limited to office work of a routine, clerical, computing or drafting nature, involving much repetition and drudgery. There can be little opportunity for women in the more heroic departments of engineering endeavor.

I have mentioned one very successful woman architect, a graduate in Civil Engineering and Architecture here, but she is a rare exception. I do think, though, that women should not be discouraged from taking courses in Architecture, Law, Agriculture, Medicine, Chemistry; because, for women of certain types, there are ample opportunities in these fields. I believe no institution makes a mistake in offering facilities to women to study Architecture, Agriculture, Home Economics, Law, Chemistry, Medicine.

No legislation of limitation is necessary in engineering schools. Too few women will ask for engineering degrees to even make the subject worth much discussion.

Very truly yours,



Dean, College of Civil Engineering

Nov. 24, 1917

December 7, 1917.

Dean C. Derleth, Jr.,
University of California,
Berkeley, Cal.

My dear sir:

Please accept my thanks for your courtesy and trouble in giving me your opinion in regard to the question of admitting women students to the courses in Architecture, Chemistry and Engineering in the Fowne Scientific School, University of Pennsylvania.

I appreciate very much the detailed information in your letter, which will be of benefit to the Committee having the matter under discussion.

Very truly,

Dean.

however, an increasing number of women have entered special engineering classes though they are not candidates for engineering degrees. This is explained by the fact that there are always a number of women registered in such departments as Agriculture, Home Economics, Architecture, Commerce and Chemistry. Women studying in these groups take special work in engineering either because of prescribed or because of elective studies. Therefore the Civil Engineering department, for

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November 7, 1917.

Dr. Frank J. Goodnow, President,
Johns Hopkins University,
Baltimore, Md.

My dear President Goodnow:

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Thayer School of Civil Engineering,

**CONNECTED WITH DARTMOUTH COLLEGE,
POST GRADUATE COURSE**

ROBERT FLETCHER, Ph. D., C. E., DIRECTOR, Prof. of Civil Engineering
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SYDNEY L. RUGGLES, C. E. Instructor

NOV 15 1917

Hanover, N. H. November 13th, 1917.

John Fraser, Dean,
Towne Scientific School,
University Pennsylvania,
Philadelphia, Pa.

Dear Sir:-

Replying to you favor of November 8th, I have to say that I can best answer your inquiry by the familiar phrase in two words, "nothing doing."

Perhaps this would be too blunt and might appear discourteous, so I will add that I have never yet met a woman who wanted to be an engineer. Did'nt suppose there was anything in mortar boards, or steel reinforcements, or bending moments, testing machines and least squares that would appeal to the fair sex. So with us the question is not even "Academic". We have never even thought of it.

I suppose we are behind the times for we have'nt any woman suffragists or picketers in this community. Our ladies are too busy with the Red Cross, Ambulance and Hospital Service, Food Conservation and other vital questions to give any attention to such vagaries.

I think this answers your inquiries.

Yours very truly,

Robert Fletcher

RF/V

November 15, 1917.

Director Robert Fletcher,

Thayer School of Civil Engineering,

Dartmouth College,

Hanover, N. H.

Dear Sir:

I beg to acknowledge the receipt of your letter of November 13th, in reply to mine of the 8th, in reference to the matter of admitting women students to the Towne Scientific School of the University of Pennsylvania.

Very truly,

Dean.

RF/V

NOV 17 1917

COLLEGE OF ENGINEERING
AND
ENGINEERING EXPERIMENT STATION
UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN

C. R. RICHARDS
DEAN AND DIRECTOR

November 14, 1917

Dean John Frazer
Towne Scientific School
University of Pennsylvania
Philadelphia, Pennsylvania

My dear Dean Frazer:-

Your letter of November 10, addressed to Dean Goss, has come to my attention since he is no longer connected with the University of Illinois.

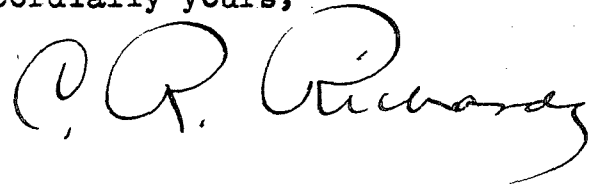
In response to your inquiry, I beg to say that the College of Engineering of the University of Illinois has had very little experience with women in its various curriculums. As you may know, the Department of Architecture is in the College of Engineering. In this Department we have had each year one or two women, and it is my understanding that they have made a creditable showing in their work. There have been very few women enrolled in the other departments of the College of Engineering, and none of them has completed the work for the degree, except some of those in Architecture.

Since this is a coeducational institution maintained by the State, we are obliged to accept women in any curriculum in the University, which they may desire to enter. If the war continues through a series of years, I should not be at all surprised to see a considerable number of young women go into some branch of engineering service, and it is entirely possible that they may first seek training in the technical schools to prepare themselves for such work.

It seems to me that there are certain kinds of engineering work which women could carry out as satisfactorily as men. This would include all branches of designing work in architecture, machine design and general structural design. Whether women would be able to direct construction work is a question. I think that we would dislike to see them engaged in this sort of work, and yet it is possible that they could discharge the duties of such positions satisfactorily.

Regretting that I have no more specific information to give you on this subject, I am,

Very cordially yours,



R/K

November 19, 1917.

Dean C. R. Richards,

University of Illinois,

Urbana, Ill.

My dear Dean Richards:

I beg to acknowledge the receipt of your very full and courteous reply to my letter to Dean Goss, who, I note is no longer with your institution.

Your information and suggestions will be very much appreciated by the Committee considering this question.

Very truly,

Dean.

STEVENS INSTITUTE OF TECHNOLOGY
CASTLE POINT, HOBOKEN
NEW JERSEY

ALEX. C. HUMPHREYS, M.E., Sc.D., LL.D.
PRESIDENT

November 9, 1917.

NOV 10 1917
ANSWERED

Mr. John Frazer, Dean,
Towne Technical School,
University of Pennsylvania,
Philadelphia, Pa.

My dear Mr. Frazer:-

I am in receipt of your letter of the 8th inst., in regard to admitting women to your courses in engineering, architecture, and chemistry.

We have never had any women students. As far as I know we have never had but one application. One young woman was very anxious to enter as a student, but as we were very much handicapped in providing accommodations for the male students I felt that we could not really afford to take this young woman, when, as I explained to her, there were ample opportunities for her to go to other colleges, Cornell being one of them. So this answers a number of your questions.

Now as to the advisability of admitting women, I think that is a question that will have to be settled by the colleges themselves in connection with the facilities they may have for such coeducational work. It does not seem to me that

Mr. John Frazer.

#2.

Nov. 9, 1917.

the women can be provided for exactly along the same lines as the men, except in the mere teaching. There must be a differentiation in regard to the activities, etc., which a college or university has to take care of in some measure.

The question of sex must be met.

I think there is a demand for women, certainly in architecture and chemistry. I happen to know of one or two women who are doing excellent work as graduate chemists. I know of one woman who is making a record for herself in the line of bacteriology. I understand that there is developing quite a demand for women in the offices of architects, and that in some cases these women develop so that they rise to positions of authority. Certainly in connection with architecture of residences women ought to have a field which could be occupied to the advantage of the community.

In engineering I should think that their activities would be very much confined. I know of one woman who graduated from college, I think in the same class with her brother, as an electrical engineer, and she does the strictly mathematical work in the department of engineering of a large manufacturing concern. Certainly it would be an exceptional woman who could undertake to do much of the work which the engineer has to do, and certainly in the branch of civil engineering.

These are my views, hurriedly expressed, but if I can help you in any other way I shall be glad to do so.

Yours very truly,

Alex. Humphreys
President.

November 12, 1917.

Pres. Alex. C. Humphries,

Stevens Inst. of Technology,

Castle Point, Hoboken.

My dear Mr. Humphries:

Please accept
my gratitude and thanks for your let-
ter of November 9th, replying to mine
of the 8th, and for the careful at-
tention you have given the matter.

Very truly,

Dean.

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DEPARTMENT OF POWER ENGINEERING

Albert W. Smith, Professor
William N. Barnard, Professor
F. O. Ellenwood, Professor
R. Matthews, Ass't Professor
C. A. Peirce, Ass't Professor
C. H. Berry, Ass't Professor
R. E. Clark, Instructor

SIBLEY COLLEGE

CORNELL UNIVERSITY

ALBERT W. SMITH, Dean

Ithaca, N. Y.,

November 12, 1917

NOV 13 1917
ANSWERED

Professor John Frazer, Dean
Towne Scientific School.,
University of Pennsylvania,
Philadelphia, Pa.

Dear Sir:-

Replying to your letter of November 8th.,
I would say that Cornell has been from the beginning
a co-educational institution and all the courses in the
University are open to women on exactly the same
footing as they are to men.

The College of Civil Engineering has had a
number of women students and the College of Architecture
always has a number of women in there courses. The
courses in Industrial Chemistry also have a number of
women every year who are taking the work for professional
uses. In the College of Mechanical Engineering we have
had had a number of women students but none of them
have ever finished the full curriculum. We have one
girl in her Junior year who probably will complete
the course if nothing interferes. We also have two
women in the Freshman class. This has never been a
problem with us, however, as the number of applicants
has been few and far between. It may be that in the

Professor John Frazer,

November 12, 1917

near future we shall have more applicants and
the problem may present more sides than it has
to date but so far it has not been a serious matter.

Very truly yours,

Arthur S. Kimball
Acting Dean.

DSK:MCP

November 13, 1917.

Mr. Dexter S. Kimball,
Acting Dean, Sibley College,
Cornell University.

My dear Sir:

I beg to acknowledge,
with thanks, the receipt of your
courteous letter of November 12th,
in reply to mine of the 8th, in
regard to the admission of women
students to the Towne Scientific
School.

The information you have
given will be of much assistance to
the Committee in its deliberations.

Very truly,

NOV 15 1917

OFFICE OF THE DEAN

SCHOOLS OF ENGINEERING
AND ARCHITECTURE
WASHINGTON UNIVERSITY
SAINT LOUIS, MISSOURI

OFFICE OF ADMISSIONS

NOV - 6 1917

November 12, 1917.

Dean John Frazer,
University of Pennsylvania,
Philadelphia.

Dear Dean Frazer:

In reply to your letter of November 10th, I beg to state that there have never been any women registered as candidates for degrees in the School of Engineering of Washington University, though I recall that in 1900 or 1901 one woman took some of the non-laboratory courses in Civil Engineering.

In the School of Architecture, however, we had one woman graduate in the class of 1912, one in the class of 1916, one in the class of 1917, and at the present time there are two women in the Senior Class, and three in the Freshman Class.

It is my personal opinion, and I believe I may speak for all the men in the Engineering Faculty, that women are not fitted for engineering work, and our policy would be to actively discourage the registration of women in this department of the University, especially in Mechanical or Electrical Engineering where the laboratory work necessarily involves the exercise of physical strength. The case is not quite so clear in Civil Engineering, except in so far as Field Surveying is concerned, but I think that in that case the presence of women is not desirable. I happen to know that at Cornell University Miss Nora Blatch completed the course in Civil Engineering in 1904; and I also happen to know that her presence in the surveying parties was much resented by the men students.

November 12, 1917.

Dean John Frazer - 2

So far as Architecture is concerned, there are some branches of the subject for which women seem to be well adapted, particularly interior design and decoration, but where the work is administered on the French plan, as it is with us, with numerous 9- and 12-hour problems, the physical strain is quite severe; and I happen to know that Professor Ferrand, who is Professor of Architectural Design in our institution, is seriously considering the adoption of measures which will prevent women from taking these courses.

The experience of the few women who have graduated from our School of Architecture does not furnish ^a sufficient basis from which to draw conclusions as to the demand for them in this profession. One of them is almost totally deaf, and has found it practically impossible to find work for this reason. Another is a daughter of fairly well-to-do parents and they will not permit her to take an office position. The third is now employed as draftsman by the City Plan Commission of St. Louis, and before that she was in the City Park Department, in both of which positions she has been doing creditable work.

Trusting that this information will be of some assistance to you, I remain

Very truly yours,



Dean.

November 15, 1917.

Dean A. S. Langsdorf,
Washington University,
St. Louis, Mo.

My dear Sir:

I am in receipt of your letter of November 12th, which just reached me, and beg to thank you for your very full and courteous reply to my recent inquiries concerning the question of admitting women students to the courses in the Towne Scientific School.

Very truly,

Dean.

CASE SCHOOL OF APPLIED SCIENCE

CLEVELAND, OHIO

NOV 14 1917

PRESIDENT'S OFFICE

November 12, 1917

Professor John Frazer,
Dean Towne Scientific School,
University of Pennsylvania,
Philadelphia

My dear Dean Frazer:

Your letter of the 8th inst., in regard to women in scientific schools, is at hand. We have never admitted women and in fact have had very few applications. I can see no objection to admitting women to engineering courses for certain kinds of work although I doubt whether they could practice the engineering profession in most of its branches. There is no reason why they should not do fine work in architecture and in the drafting room. It would be much more difficult for them to do the work of inspection or erection or railroad construction and so forth. If the war progresses it may be necessary to admit women to these courses in order to train any students at all.

Regretting that I cannot give you more information, I am,

Very truly yours,

Charles S. Howe

President

November 14, 1917.

President Charles N. Howe,
Case School of Applied Science,
Cleveland, Ohio.

My dear Sir:

I have just received your letter of November 12th, replying to mine of the 8th, giving me your ideas in regard to admitting women students to scientific schools.

Thank you very much for your courtesy and for the information you have given me, which will be very helpful to the Committee.

Very truly,

Dean.

NOV 10 1917
ANSWERED

THE POLYTECHNIC INSTITUTE
BROOKLYN-NEW YORK

PRESIDENT'S OFFICE

November 9, 1917

Mr. John Frazer, Dean
Towne Scientific School
University of Pennsylvania
Philadelphia, Pa.

Dear Sir:

In answer to your letter of November 8th, we can
only reply that we have not admitted women students to our
courses.

Very truly yours,


President

November 12, 1917.

Pres. F. W. Atkinson,
Brooklyn Polytechnic Inst.
Brooklyn, N. Y.

My dear Sir:

I beg to acknowledge the receipt of your letter of the 9th, in reply to mine of the 8th, and thank you for the information given.

Very truly,

Dean.

UNIVERSITY OF VIRGINIA
DEPARTMENT OF ENGINEERING
CHARLOTTESVILLE

OFFICE OF THE DEAN

November 13, 1917.

Dr. John Frazer,

Philadelphia, Pa.

Dear Dr. Frazer:

In reply to your letter of November 8, I have to say that we have never admitted women as students to this University, except in the Summer School, which is intended in the main for Public School teachers. We have had, therefore, no experience whatsoever with their work in collegiate or professional courses; and under our regulations we could not admit them. I can see no reason why women should not do excellent work in the Drafting and Computing offices of Engineering establishments, and shall be very glad to see them furnished opportunities for preparation.

Very truly yours,

William M. Hunt

Dean.

NOV 15 1917

November 15, 1917.

Dean William M. Thornton,
University of Virginia,
University, Va.

My dear Sir:

I beg to acknowledge with
thanks, the receipt of your letter of
November 13th, in reply to mine of
November 8th, with reference to the
admission of women students to the
Towne Scientific School, University
of Pennsylvania.

Very truly,

Dean.

NOV 17 1917

The Tulane University of Louisiana
New Orleans

COLLEGE OF TECHNOLOGY
W. H. P. CREIGHTON
DEAN

November 14th,
1917.

Dean John Frazer,
University of Pennsylvania,
Philadelphia, Pa.

Dear Dean Frazer:-

We have a college for women - Newcomb College - situated about two miles from the college for the boys. A former regulation provided that girls could take in the colleges for boys only professional studies that were not given at Newcomb. This regulation prevented any girls but college graduates from taking professional work as the distance between colleges prevented a workable student schedule.

Girls taking work leading to professional degrees may now take all their studies in the colleges for boys. There are now about fifteen of them taking courses in medicine, pharmacy, dentistry and architecture. One or two girls have taken work in applied chemistry.

Where the courses are hard and the professors are exacting there will be little demand on the part of women. But occasionally one appears having the requisite preliminary training, robust health, intelligence and diligence to make good and it is difficult to assign a fair reason for refusing her.

The presence of a woman increases the complications in some directions, and curbs some of the freedom or license of students in language and behavior. Nevertheless so long as she behaves properly and does the work required she should be granted the same rights as a boy and no more. A flirt will undoubtedly neglect her work and can be dropped.

There are openings in phases of architecture, architectural engineering and chemistry for women. I believe that logically a woman is within her rights to demand and enter such courses for the mental training, pleasure, or information derived from the studies followed independent of the use she may or may not make of them after graduation and whether she is or is not the only woman in the class.

I believe also that very few women will graduate from courses in the College of Technology of Tulane University.

Yours very truly,



Dean, College of Technology.

na

ber 14th,
1917.

November 19, 1917.

Dean W. H. P. Creighton,
College of Technology,
Tulane University.

My dear Dean Creighton:

Thank you for
your very courteous and complete reply
to my letter of recent date, inquiring
in regard to the advisability of ad-
mitting women students to the Towne
Scientific School.

What you have said will un-
doubtedly be helpful to the Committee.

Very truly,

Dean.

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followed independent of the use ~~.....~~ or may not make of them after
graduation and whether she is or is not the only woman in the class.

I believe also that very few women will graduate from
courses in the College of Technology of Tulane University.

Yours very truly,

W. H. P. Creighton

Dean, College of Technology.

- Newcomb College -
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NOV 19 1917

THE JOHNS HOPKINS UNIVERSITY

DEPARTMENT OF ENGINEERING

JOHN B. WHITEHEAD
PROFESSOR OF ELECTRICAL ENGINEERING

HOMEWOOD
BALTIMORE, MD.

Nov. 17, 1917.

Dean John Frazer,
Towne Scientific School,
University of Pennsylvania,
Philadelphia, Pa.

My dear Sir:-

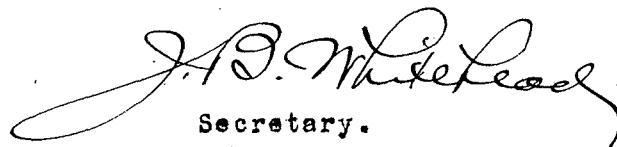
President Goodnow has asked me to answer your letter of November 7th.

This University has, for a number of years, admitted women to graduate courses in all departments. The Department of Engineering, during its four years life, has had only one woman as a student, she having taken advanced courses in Mechanical Engineering.

My own opinion is that there would be many practical difficulties in giving undergraduate instruction in Engineering to women. There has been no demand for the offering of such opportunities by this University. Based on discussions of the admission of women to undergraduate courses in other departments in the past, I should say that the demand would have to be quite positive before this University would open its undergraduate courses to women.

Yours very truly,

JBW/W.


Secretary.

November 20, 1917.

Professor John B. Whitehead,
Johns Hopkins University,
Homewood, Baltimore.

My dear Sir:

I beg to acknowledge, with
thanks, the receipt of your letter of
November 17th, in reply to my letter to
President Goodnow, in regard to the ad-
mission of women students to the Towne
Scientific School of the University of
Pennsylvania.

Very truly,

Dean.

JBW/W.

Secretary.

answer

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NOV 16 1917

President's Office
Georgia School of Technology,
Atlanta, Ga.

Dean John Frazer,

Nov. 13th, 1917.

University of Pa.,

Philadelphia, Pa.

Dear Sir:

Replying to your letter of Nov. 10, 1917, I beg to say that we do not receive women students in any of our departments except the evening school of Commerce. We are forbidden to do so by our Charter which dates back about thirty years.

I see no good reason why women should not be admitted especially to our course in architecture and perhaps to chemistry and textiles and even electrical engineering. I think probably it will be done when there is a demand for it. I know no demands for this at present except that I have had a few inquiries from women as to the possibility of their doing work in the School.

Very truly yours,

W. H. Emerson

DEAN.

November 16, 1917.

Dean W. H. Emerson,

Georgia School of Technology,

Atlanta, Ga.

My dear Dean Emerson:

I beg to acknowledge, with thanks, the receipt of your letter of November 13th, replying to my inquiry of November 10th, with reference to the admission of women students to the Towne Scientific School.

Very truly,

Dean.

Ira N. Hollis,
President

WORCESTER POLYTECHNIC INSTITUTE

Worcester, Mass.

Nov. 12, 1917.

Mr. John Frazer,
University of Pennsylvania,
Philadelphia, Pa.

My dear Sir:

I have your letter of the 10th inquiring about the admission of women to this institution. So far as I know there is nothing in the charter that would prevent their admission but up to this time there has never been a woman student of the Institute. I do not see any objection to admitting them excepting the fact that we should be put to some expense in making adequate provision to take care of them. The buildings would have to be altered and there would doubtless have to be some kind of a hall for them. I do not know how the gymnasium part of it would be worked out. If women are admitted to an institution I see no reason under the sun why they should not be admitted to the Engineering Departments. A case in point is Michigan University where I think some women have graduated in engineering.

As you seem to want my advice, I would admit them to Pennsylvania University.

Yours very truly,

Ira N. Hollis

November 13, 1917.

President Ira M. Hollis,

Worcester Polytechnic Inst.,

Worcester, Mass.

My dear Sir:

Thank you for your courteous letter of November 12th, giving your views in regard to admitting women students to the Towne Scientific School.

I am sure your letter will be very helpful to the Committee in deciding this matter.

Very truly,

Dean.

Ira M. Hollis

NOV 20 1917

UNIVERSITY OF MICHIGAN
ANN ARBOR
COLLEGE OF ENGINEERING

November 16, 1917

MORTIMER E. COOLEY, DEAN
WILLIAM H. BUTTS, ASSISTANT DEAN
LOUIS A. HOPKINS, SECRETARY

Dean John Frayer,
University of Pennsylvania.

Dear Sir:

You have assigned me a somewhat difficult task in your letter of November 10th, inquiring about admitting women to courses in engineering. The fact itself is not so difficult, as to express a reasonable opinion about it.

In this University, ever since coeducation was adopted women have had the privilege of electing any course in any department of the University. I remember my first year here, in 1881-2, I had a woman student in my course in Prime Movers. She was a granddaughter of Julius Weisbach and a whale of a student. She made the boys look like sixpence. I imagined a great future for her, but she speedily got married, which ended it.

The next woman that I recall was a daughter of a patent attorney; the family was a brilliant one;—one of the sons later became an assistant professor here. She did splendidly and on her graduation found work in New York in an architect's office, in connection with engineering features and the arrangement of homes. It was a fine field for her and she did well, but in three or four years she, too, got married and moved to the State of Washington. She has since died.

Since those two were graduated, we have had perhaps a dozen others, part of them in architecture. The majority of them have been excellent students, but I do not at this moment recall any one of them following the profession in its strict sense.

Formerly women students were excused from certain studies, like surveying and shop work, being permitted to substitute for them; but more recently they seem to resent being excused and it is not unusual to see a girl at a turning lathe or at the anvil, and almost any day a woman can be seen as a member of a transit party on the campus. The instructor of course is supposed to use good sense in assigning tasks befitting a woman's strength. Carving, ornamental turning and forge work, and certain phases of foundry work appeal to women.

training
I have for years felt that certain kinds of work in engineering formed a fine field for women. In England most of the ~~training~~ is done by women and I am told that they are better than the men. I do not see why they should not be. There are many things in engineer's offices which they can do. In our ap-

NOV 15 1917



Year	Total Number of Students	Women	Architecture	Chemistry	Engineering
1910-17	1997	14			
1915-14	1906	15			
1914-13	1816	14			
1913-12	1787	12			
1912-11	1511	19			
1911-10	1309	7			
1910-09	1207	10			
1909-08	1191	8			

Dear Dean Frazer:

Replying to your letter of November 8th

I may say that this Institute has thrown its courses open to women on the same terms as to men for more than a generation. The number of women students has, however, always been a very small fraction of the total number. I enclose a table setting forth the total number of students, the number of women students and the number of women students pursuing the courses that you mention, namely, Architecture, Chemistry, and Engineering, during the last eight years. This table, I think, answers most of your questions. Some of the women graduates have done very well, particularly in the field of Chemistry. No serious difficulty has presented itself with regard to participation of women in any of the phases of the curriculum, but you will see that in Engineering, where these difficulties might be anticipated, our experience has been very limited.

Yours sincerely,
Richard Maclaurin

Dean John Frazer,
 University of Pennsylvania

Year	Total Number of Students in Institute	Number of Women	Architecture	Chemistry	Engineering
1916-17	1957	16	3	3	-
1915-16	1900	18	5	2	1
1914-15	1816	14	3	3	-
1913-14	1685	12	2	3	-
1912-13	1611	14	1	6	-
1911-12	1566	7	1	1	-
1910-11	1506	10	3	4	-
1909-10	1481	8	3	2	-

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November 15, 1917.

Pres. Richard Maclaurin,
Mass. Inst. of Technology,
Cambridge, Mass.

My dear Sir:

Thank you for your courteous letter which I have just received, in reference to admitting women students to technical courses.

The information you have given me, with the accompanying table, answers our inquiries very satisfactorily.

Very truly,

Dean.

NOV 10 1917
ANSWERED
NOV 10 1917

THE JOHNS HOPKINS UNIVERSITY
BALTIMORE, MARYLAND

PRESIDENT'S OFFICE

November 9, 1917.

Dear John Frazer,

University of Pennsylvania,

Philadelphia, Pa.

Dear Sir:

Your letter of November 7th to President Goodnow has been received in his absence.

I have referred it, for reply, to our Professor Whitehead, Chairman of the Advisory Committee of the Department of Engineering on whom we call to answer all matters relating to that department.

You will no doubt hear from him at an early day.

Yours very truly,



Secretary to President.

OCT 15 1917

UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA

THE TOWNE SCIENTIFIC SCHOOL

CHEMISTRY

Oct 12, 1917

Dear Dean Frazer

I shall be glad
to serve on the committee
to consider the advisability
of admitting women
students to the various
departments of the
Towne Scientific School

Yours very truly
Hiram S. Gilbert

OCT 12 1917

UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA

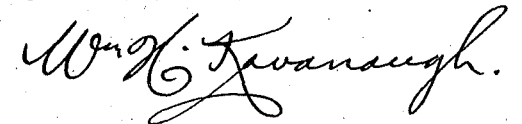
TOWNE SCIENTIFIC SCHOOL
DEPARTMENT OF
MECHANICAL ENGINEERING
ROBERT H. FERNALD, PROFESSOR-IN-CHARGE

October 11, 1917.

My dear Dr. Frazer:-

In reply to your favor of the 10th instant, I would say, that I will be pleased to serve as a member of the Committee to consider the advisability of admitting women students to all departments of the Towne Scientific School.

Very truly yours,



To Dean John Frazer,
Towne Scientific School.

OCT 17 1917

UNIVERSITY OF PENNSYLVANIA

TOWNE SCIENTIFIC SCHOOL

THE DEPARTMENT OF CIVIL ENGINEERING
ENGINEERING BUILDING
EDGAR MARBURG, PROFESSOR-IN-CHARGE

PHILADELPHIA

Oct. 15, 1917

Dr. John Frazer,
Engineering Building.

Dear Dr. Frazer:

Referring to your letter of the
10th inst., I shall be happy to serve on
the committee to which you there advised
I had been appointed.

Yours sincerely,
Edw. J. Mandlinary

Sent. Nov. 1930

UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA

TOWNE SCIENTIFIC SCHOOL
R. H. FERNALD, DEAN

MOORE SCHOOL OF ELECTRICAL ENGINEERING
HAROLD PENDER, DEAN

The Engineering Schools of the University of Pennsylvania have as their aim, not to build up a large enrollment nor to compete in a race for numbers, but to educate for the professions of engineering and chemistry a relatively small group of men distinctly qualified by natural ability, environment, scholastic aptitude and personal characteristics.

You undoubtedly have in your school a few young men of outstanding quality who are thinking of courses in engineering or chemistry to whom an especially strong appeal would be made by the University of Pennsylvania, with its convenient access to the many industries of the great metropolitan district of which Philadelphia is the center.

May we trouble you to pass the enclosed cards to such young men as you feel meet the standards which we have indicated?

Your cordial cooperation will be greatly appreciated.

Sincerely yours,

Dean, Towne Scientific School.

Dean, Moore School of Electrical Engineering.

Dean John Frayer - #2

praisal work we have found them excellent in computing from data and in checking results. One of your graduates - E.T. Cope 3rd, is at present working with the Detroit Edison Company in the sales department, with a woman at the head of it. Her ability is such as to command one of the highest salaries paid by the Company. The fields of architecture, including interior decoration, and landscape gardening, strike me as particularly suitable for women.

Viewed from the point of engaging in work for which they are naturally fitted, I can see no objection whatever to women in engineering; should they aspire to do the things found difficult by our biggest engineers, I raise the question as to whether they would be successful.

The presence of women in our engineering classes is interesting in one respect - namely, in the courtesy and camaraderie with which they are treated by their classmates of the other sex. A blind man seeing them at work together would not know the difference.

On receipt of your letter I asked our assistant secretary (a woman) to compile from her records information concerning women students. I inclose the results of her research, which I have myself found most interesting and illuminating. I am bound to say that it is a good example of what a woman can do.

Yours very truly,



(20 Arch.
11 Engr.
1 Special (Engl.)

Number of Women Students enrolled from 1906 to 1917--32

Yearly enrollment	1906 to 1910	---	1			
	1910 " 1912	---	2			
	1912-13	---	4,	3	Eng.,	1 Arch.
	1913-14	---	6,	3	"	3 "
	1914-15	---	14,	7	"	7 "
	1915-16	---	14,	4	"	10 "
	1916-17	---	14,	4	"	9 " 1 Special (English)
	1917-18	---	8,	5	"	3 "

Graduated ---- 5 (1, Arch. Never practised; married.
(4, Civil Engr. (2 holding good positions.
(2 married; not practising.

Left (Non graduates) after 1 semester of work,	3
" 1 year	5
" 1½ years	4
" 2 "	6
" 3 "	1 (expects to return)

Departments of study chosen by the Engineering students--

Unclassified	1
Civil	6
Mechanical	1
Electrical	1
Chemical	2
	<hr/> 11

Scholarship of women students

Engineering	2	excellent,	4	good,	2	fair,	1	poor (1 Probation)
Architecture	2	"	7	"	4	"	6	" (3 Probation)
Special	1	"						

3 have recently entered; quality unknown.

Entered from High Schools,	---	---	---	13
" Normal Sch. or Academy	---			4
" Literary College, U. of M.				6
" other Universities or Colleges				9 (6 with degrees)

32

Motives for studying engineering or architecture;

3 had worked for their fathers,-- Contractor, sewers and water works; Contractor, buildings; Manufacturer and dealer in machinery.
1 because her husband was studying architecture.
1 " " brother " " engineering.
1 wanted to take up hydraulic engineering.
1 wanted to take up interior decorating.
Several wanted to design houses and buildings.
Several enjoyed the study of mathematics.
Several seemed to have no definite reasons for their choice.

Accomplishment.

Graduates; 1 Civil Engineering, doing very satisfactory work, designing reinforced concrete buildings for the Trussed Concrete Steel Co., Youngstown, O.
1 Civil Engineering, with the Michigan State Telephone Co., doing research work in unit costs.
2 Civil Engineering, married.
1 Architecture, married.

The first four above worked at various times in vacations and after graduation for the head of the

Accomplishment,

Non graduates; 3 teaching.
4 transferred to Literary College; (1 will grad.)
1 working in Architect's office.
1 " for father. (Manufacturer)
1 worked for father 2 years, then married.
1 married.
several staying at home.

Up to the present time there has been no demand for women in the professions of engineering and architecture, and it has been difficult to persuade engineering concerns to employ women graduates. There has been a little more chance for women in the drafting rooms of architectural concerns. However, the war conditions have already changed the attitude of employers, and there are now calls for several women graduates in Civil Engineering for immediate work.

Of the 52 women students in these Colleges, 6 have married.
3 married secretly while juniors.
2 " after being out of college 2 years.
1 left just before close of sophomore year to be married.
All of them married students of this University; 5 were in engineering or architecture, and 1 literary. None of the women married men in their own classes.

The summer Surveying Camp is the only part of the curriculum withheld from women engineering students.

5 women in Civil Eng. have taken two or more courses in the Surveying offered on the Campus.

1 woman in Mech. Eng. took one course.

Several women in the Literary College studying Landscape Design have taken our Surveying courses.

5 women have taken Shop work in wood and forge, and one of them also took Machine shop.

1 woman took an elementary mechanical laboratory course.

Those who did not wish to take shop work or surveying have been allowed to substitute other studies for these subjects.

Most of those who remained more than one year took laboratory courses in Physics and Chemistry. One who is a senior this year in Chemical Engineering has taken much laboratory work and now is assistant in Quantitative Chemistry,--the first woman in this University to hold such a position.

There has been no real objection in these Colleges to the presence of women students in surveying field work, shops, laboratories or drafting rooms. Most of our girls have worked quietly and independently. The only real complaint has come from the architectural drafting rooms, where a few girls have been a distracting element by being too much interested in the young men. Two girls have been reproved for this and advised to change to the Literary College.

(Mrs.) C. B. Green
Assistant Secretary
Colleges of Engineering
and Architecture.

November 20, 1917.

Dean Mortimer E. Cooley,
College of Engineering,
University of Michigan,
Ann Arbor, Mich.

My dear Dean Cooley:

Please accept my best thanks for your very full discussion of the point concerning which I wrote you on November 10th.

Your suggestions will be very helpful to the Committee which has this matter under discussion.

I appreciate particularly your interest in compiling the list which is appended to your letter.

Very truly,

Dean.

NOV 30 1917

Columbia University
in the City of New York

SCHOOLS OF MINES, ENGINEERING AND CHEMISTRY

OFFICE OF THE DEAN

November 28, 1917.

Dean John Frazer,
Towne Scientific School,
University of Pennsylvania,
Philadelphia, Pa.

Dear Dean Frazer:-

In reply to your letter of November 8th which was referred to me by former Dean Goetze, I can say that the Schools of Mines, Engineering and Chemistry of Columbia University have not admitted women as candidates for a degree. In graduate work in Chemistry and other sciences under the Faculty of Pure Science, leading to the degree of Master of Arts and Doctor of Philosophy, women are admitted on equal terms with men and constitute perhaps a quarter of the students.

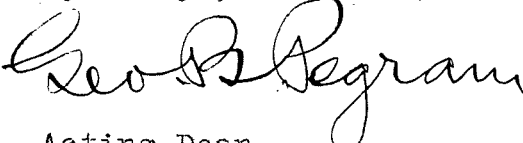
It happens that we have recently had a discussion in the Committee on Instruction of our Faculty on the very point which you raise and while opinion was divided, it was felt by the majority that since an exceedingly small number of women have been graduated in engineering from such in-

stitutions as Cornell and the Massachusetts Institute of Technology, which are supposed to be entirely co-educational, it would hardly be worth while for us to undertake to make the additional provisions which would be necessary if we were to admit women to our engineering courses. Very probably a woman properly prepared would be admitted as a special student in one of our technical courses where the conditions are such that she could fairly be expected to do the work, but, in Civil Engineering for example, we have a considerable amount of work which is done at Camp Columbia and there are no accommodations there whatever, suitable for women.

I should be much interested to hear the result of your inquiries and deliberations on this interesting question of admitting women to engineering courses.

G.B.P./M.C.

Very truly yours,


Acting Dean.

December 7, 1917.

Professor George B. Pegram,
Acting Dean Engineering Dept.,
Columbia University.

My dear Sir:

Thank you for your courteous letter of November 28th, in reply to mine of November 9th, addressed to former Dean Goetze, in regard to the advisability of admitting women students to the Towne Scientific School of the University of Pennsylvania.

I shall be glad to advise you as to the outcome of this matter when it is ultimately settled.

Very truly,

Dean.

E. F. P. --II--

Regretting that I was unable to discuss this matter with you in person, and hoping that I am not burdening you unduly with this matter, I am,

Sincerely,

NOV 10 1917
ANSWERED

OFFICE OF THE PRESIDENT
WELLESLEY COLLEGE
WELLESLEY MASSACHUSETTS

November 8, 1917.

Dean John Frazer,
University of Pennsylvania,
Philadelphia, Pa.

My dear Dean Frazer:

Your letter of November 6th is before me. Since it is evident that there would be a number of women who would desire to enter the departments of Architecture and Chemistry, it would seem to me unfortunate not to make the admission of women general, and to allow the few women who might desire to do so to enter the department of Engineering. Perhaps I do not realize the obstacles to such a course, but I feel that the broad policy itself would attract more women to the departments of Architecture and Chemistry, and that even if no women presented themselves for the other departments, it would be wiser to have been liberal in the matter. If there are any specific questions which arise, I shall be very glad to answer them and to give any information in my power.

*Very truly yours,
Ellen S. Condit*

November 12, 1917.

President E. F. Pendleton,
Wellesley College,
Wellesley, Mass.

My dear President Pendleton:

Thank you for your letter of the 8th inst., in reply to mine of the 6th.

I was very anxious to have your opinion in regard to the question raised, and shall transmit your letter to the Chairman of the Committee, by which it will, I am sure, be received with much interest.

Should any specific questions arise in the course of the Committee's deliberations, I shall avail myself of your very kind offer to write again.

With kindest regards,

Very truly,

UNIVERSITY OF PENNSYLVANIA

THE TOWNE SCIENTIFIC SCHOOL

DEPARTMENT OF ARCHITECTURE
WARREN POWERS LAIRD, SC. D.
PROFESSOR-IN-CHARGE

PHILADELPHIA

December 7th, 1917.

DR. G. G. CHAMBERS, Chairman,
Faculty Committee on Admission of Women
to the Towne Scientific School.

Dear Dr. Chambers:

Through Professor Whitney, our representative on your committee, our staff has been asked to express its judgment on the advisability of the admission of women to instruction in architecture.

After careful consideration the staff is of the opinion that women may wisely be admitted to the study of architecture under two conditions:

First, that they be separately instructed in subjects taught in drafting room and studio because the free contact of both groups would tend to *(adversely) modify* the spirit of their work; and,

Second, that the present course be modified to provide an option for women without change of degree so as to better meet their needs, experience having shown that in spite of full opportunity for training during many years past, they have been less well adapted to architecture than to its allied callings, landscape design and interior decoration.

The meeting of these conditions would involve some additional instruction and equipment, as well as building alterations, the cost of which would be relatively not large.

Very sincerely yours,

Warren Laird

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November 12, 1917.

NOV 14 1917

Dean John Frazer,
University of Pennsylvania,
Philadelphia, Pennsylvania.

Dear Dean Frazer:

In reply to your letter of the 8th instant, relative to women students in the engineering college, beg to say that there are no restrictions whatever against the attendance of women students in any of the courses of the College of Engineering. As a matter of fact, however, we have never had more than three or four women students in any of the courses, with the exception of some of the courses in drawing. No woman student has ever graduated, but one student finished the Junior year in civil engineering, and graduated subsequently at Armour Institute. She was the wife of a student who was one year in advance.

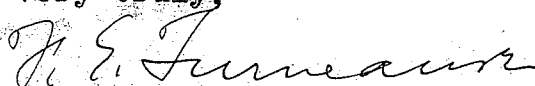
Three or four years ago, a graduate of Vassar College started to complete the civil engineering course, and did very good work for a year, but at the end of that time secured a very good position and did not continue her work. My correspondence with her may be a matter of some interest. In answering her inquiry as to the possible openings for a woman who should complete an engineering course, I replied that if such work were supplemented by a knowledge of stenography and typewriting, I believed that there were very good openings available in engineering offices. Such a person could readily find a position as a clerk and stenographer, and with her knowledge of technical matters could develop into a very valuable office assistant in the preparation of designs, estimates, specifications, etc. There is no question about the possibilities along these lines, - particularly in view of the present situation; and I would not hesitate in recommending a woman who is good in mathematics and who has a practical mind to pursue such a course.

There have been no embarrassments whatever in *the case of* either of the young women above mentioned doing all of the work so far as they went. The Vassar girl was particularly good in the steam laboratory. The only course in which there might be embarrassment would be field work where this is done in summer camps. Even here, arrangements could be made to take care of women students if it seemed worth while.

Dean John Frazer -- #2

I may say further that not long ago I had a letter from an association concerned with the employment of women, inquiring about the possibilities along technical lines, particularly as draftsmen in architects' offices. There is no question as to the propriety of women students pursuing work in architecture and in chemistry, and, under present conditions, the latter work would lead to very satisfactory positions. The study of strictly engineering courses is somewhat less attractive, but I see no reason why opportunity should not be afforded.

Yours very truly,



Dean, College of Mechanics

and Engineering

NEERING

2, 1917.

November 14, 1917.

Dean F. E. Turneure,
University of Wisconsin,
Madison, Wis.

My dear Sir:

I beg to acknowledge the receipt of your letter of the 12th, just received, in regard to the matter of admitting women students to the Towne Scientific School.

I thank you for your very full and complete reply to our inquiries, which will undoubtedly be of assistance to the Committee.

Very truly,

Dean.

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Dean of

LELAND STANFORD JUNIOR UNIVERSITY

DEPARTMENT OF MECHANICAL ENGINEERING

DEC 24 1917
ANSWERED

Stanford University, California,

Dec. 17, 1917.

Prof. John Frazer,
Dean, Towne Scientific School,
University of Pennsylvania,
Philadelphia, Penn.

My dear Dean Frazer,

Your letter of Nov. 10th, addressed to Prof. Durand, has been returned by him to me with the request that I answer it. In explanation of this I would say that Prof. Durand has been in Washington since last April on important Government service.

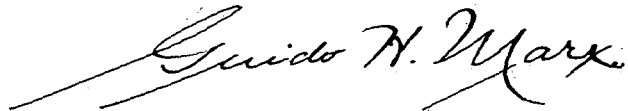
The experience of our department in regard to the question of women has been limited. We had our first application by a woman for admission to the mechanical engineering course this year and accepted her as a simple matter of routine. I saw no reason, as Executive Head of the Department, to draw a line which does not exist in the laws of the university. This young woman's father is an engineer. Her course of action has his approval, and while I see certain practical difficulties in the way of her taking all of the shop work these objections, when viewed in the light of reason, have no sounder justification than the force of tradition. We have no course of architecture,

but for years past the women have been accepted in the course in chemistry on exactly the same basis as the men, and there are women graduates of the chemistry department who are engaged in the active practice of their profession. I recall one who, when last I heard of her, was chemist in one of the large powder works on this coast.

Several years ago a young woman registered in the course in applied mathematics but took as much of the civil engineering work as she was permitted to take. As I recall her father also was an engineer, and she has assisted him since her graduation. I also recall two other cases of women who had taken certain parts of our technical course who have made practical use of the same as assistants in their husbands' engineering work. Some years ago I worked for the Gleason Company of Rochester, N. Y. and have ever since kept in touch with the members of the Gleason family. You may recall that Miss Kate Gleason is a member of the American Society of Mechanical Engineers in full standing, having taken certain parts of the mechanical engineering course at Cornell and being thoroughly trained as an executive officer in engineering enterprises. I recall when I was working for the Gleasons', Miss Gleason was going abroad, and hoping to sell some gear planers, put on an overall apron and went over to the gear planer shop in order to familiarize herself with the actual operation of the machines.

From the foregoing you will see that our institution has had women students in the courses you mentioned, that we believe there is a demand for training along these lines, certainly from the women themselves if not from the professions or industries which they would enter. I might add that there has recently been given a course by one of our graduate students on the actual mechanism of the automobile in response to a request on the part of young women who wished this work, and that about 40 or 50 are taking this work for which they pay private tuition.

Very truly yours,

A handwritten signature in cursive script that reads "Guido H. Marx". The signature is written in dark ink and is positioned above the typed name.

Acting Department Head.

GHM/DS

Provost.

Dean, Towne Scientific School.

Dec. 14/21.

Admission of Women Students to Towne Scientific School.

1. There is enclosed herewith a copy of certain extracts from the minutes of the Faculty of the Towne Scientific School, under dates of October 9th, November 15th and December 14th, 1917.

2. The Provost will observe that at the request of the then Provost, this Faculty was requested to express an opinion as to the possibility and desirability of admitting to its courses women students. The report of the Committee and its adoption (unanimous, if the writer recalls properly) noted the attitude of this Faculty in the matter.

3. Since the report to the Provost, which was presumably to be reported to the Board of Trustees, nothing further has been heard.

4. Inasmuch as a very definite request has been made for the entering of a women student in the course in Electrical Engineering, the undersigned has stated to the parents of this student that he would make inquiry as to the exact status of the matter, and advise them as soon as possible.

5. The undersigned will appreciate it if the Provost will inquire of the Board of Trustees what the status of this matter is.

John Frazer.

DEC 17 1921

UNIVERSITY OF PENNSYLVANIA

~~THE PROVOST'S HOUSE, 1027 PINE STREET~~
3446 WALNUT STREET
PHILADELPHIA

EDWARD W. MUMFORD, SECRETARY

December 16, 1921.

Dear Sir:

At a meeting of the Committee on Towne Scientific School, held to-day, the following resolution to be reported to the Trustees on December 19th, was adopted:

RESOLVED: That as several applications have been received which raised the question of the admission of women to the courses in the Towne Scientific School, this Committee recommends to the Board of Trustees that the statement be made public to the effect that the University does not possess adequate or suitable facilities to care for women students in these courses, and that therefore no change can be made in the regulations now existing.

Very truly yours,

E. W. MUMFORD,

Secretary.

ack 12/17/21
x