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HEARING BEFORE JOINT COMMITTEE ON EDUCATION

Legislative Committee hears arguments in favor of grant of \$100,000 a year from the State—An unusually interesting hearing

The first important event in the campaign for a grant of \$100,000 a year from the state was the hearing before the joint Committee on Education of the Massachusetts Legislature, which was held at the State House, February 7th. Although this hearing occurred on the day of the heavy snow storm the largest room available was filled, mostly with Tech men. The hearing was unusually interesting. It was full of variety and arguments were presented from every standpoint. The principal address was made by President Maclaurin, who was followed by President A. Lawrence Lowell of Harvard University, a member of the Technology Corporation; Mayor John F. Fitzgerald, William H. O'Brien, president of the Central Labor Union; Frederick P. Fish and President Frederick W. Hamilton of Tufts College, two members of the State Board of Education; Walter C. Fish, manager of the General Electric Works; Commissioner of Public Works Louis K. Rourke of Boston, formerly engineer of the Panama Canal; Harvey S. Chase, an expert accountant; Whitfield Tuck of Winchester. President Hamilton was the only one in opposition to the bill, and

even he urged his point largely in order to have full consideration of all such grants on a broader basis.

Dr. Maclaurin presented an able plea much of which is covered by the argument prepared by him and printed in the January Review In speaking of the increased expenses he referred to the pressure of competition from western institutions richly endowed by state grant.

"In the early days the Institute was almost alone in its chosen field. Now most of the great State universities have vigorous departments of technical education; and the millions that are poured in annually to some of these universities inevitably increase the price that must be paid for professors of the front rank. When you appreciate these facts you will not be surprised by an increase of nearly \$73,000 per annum in our salary list; and if you investigate the facts, you will be convinced that we cannot possibly be charged with extravagance. The Carnegie Foundation has recently issued a bulletin setting forth the cost of the training in a single department in a number of the leading educational institutions of America. An examination of that report will show that Technology is managed most economically. As an indication of the relative expenditure, take these three figures from the bulletin: Columbia, 75; Princeton, 68; Technology, 46.

"I hope you will understand that when we get this \$100,000 per annum we will not be in clover. We will have just enough to keep things at their present level, and with the inevitable rise in cost, we shall have to press immediately for support

from other quarters than the State.

"Our buildings are now not only scattered, but they are absolutely crowded out. To meet the changed conditions and to maintain the highest standards of efficiency we simply must move. This will involve buying a new site and rebuilding on a larger scale at the cost of millions. Now not only do we expect but we are absolutely assured of generous support from our alumni in carrying out this policy of expansion. However, although there is scarcely any limit to their generosity, there is a limit to their means."

Senator Brown: You say that you are now spending some \$30,000 out of your reserve fund. I presume that you could not keep that up indefinitely.

President Maclaurin: We would have to drop some of our departments or reduce the salaries of our teachers and

instructors.

Representative Bellamy: Would you be willing to allow the State Board of Education to have more to say about the conduct of the institution if this grant was allowed?

President Maclaurin: I should not object to the State Board being authorized to visit the Institute and report on its workings. There should be some measure of State control wherever public money is

expended.

During the questioning Dr. Maclaurin said that while the question of a new site had not been fully decided it is hoped that it soon will be decided. While discussing the State grants and State scholarships, Dr. Maclaurin said that the Institute gives away every year in scholarships, more than the equivalent of the State's \$25,000.

Frederick P. Fish, member of the Executive Committee, said that he had served on that committee for several years and that every year his respect for the Institute has increased. Mr. Fish reviewed in brief outline the history of educational institutions receiving aid from the states. He showed that the colleges of the West, in order to catch up with the older institutions of the Atlantic seaboard, had been aided most liberally. Technology started practically a new departure in education technical education—about fifty years ago and, said Mr. Fish, "the success which it has attained in so short a time is remarkable.

"I should like to prophesy," said Mr. Fish, "that we are now only at the beginning of this great industrial development and that never will the need for schools such as the Massachusetts Institute of Technology be so great as in the coming years. Chemistry will develop even more wonderfully than has electricity in recent

vears."

Mr. Fish said that he had been impressed greatly by the economies which Tech has to practise; that these economies are cropping out constantly in every department and often serve to handicap the best men.

Representative Bellamy—As a member of the Massachusetts State Board of Education, do you come here, Mr. Fish, to advocate granting Tech \$100,000 when it may serve to cripple other

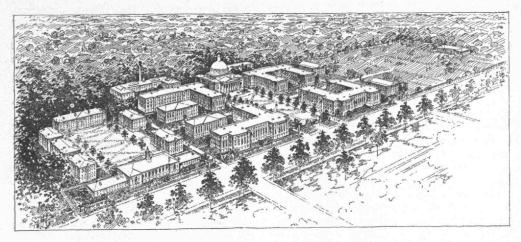
State institutions?

Mr. Fish—I am under some embarrassment in appearing here as a member of the State Board and as a member of the M. I. T. Corporation, but I feel that the \$100,000 cannot be spent to better advantage than in helping M. I. T. Of course we cannot spend the \$100,000 twice, and we have to consider whether we can spend it to better advantage than by giving it to Tech.

Senator Brown—As a member of the State Board of Education you favor

increasing this grant?

Mr. Fish—Yes; I cannot separate my belief as a private citizen from my belief as a member of the State Board.



One of the proposed arrangements for New Technology Buildings

President Lowell of Harvard, who is a member of the Technology Corporation, said that in general he was not in favor of institutions not directly controlled by the State being given State aid. But in the case of M. I. T. he felt that it practically was a State institution to some extent. In a way the State is bound to see that Tech is helped until it gets on its feet, so to speak. Tech has grown faster than anyone could have foreseen. Dr. Lowell said that the time soon should come when Tech should get along without State aid. That the institution is efficient there can be no doubt; that there is need for such an institution there can be no doubt. It not only is educating its students, but it is doing much for the community.

"The only question here," said Dr. Lowell, "is whether you deem the Institute a sufficiently worthy institution to depart from the established custom of not aiding schools and colleges for the higher education."

Representative Armstrong—What do you propose to do with your present property?

Dr. Lowell—We propose to sell that property but on a part of it there are restrictions.

Mayor Fitzgerald said that Boston would have to pay 35 per cent of this proposed grant. He had considered it carefully and supported it unreservedly. The State pays one half the expense of industrial schools established by the cities and, while these schools fit for business rather than for Tech, yet they really establish a precedent for this increased grant.

Technology, said the mayor, is a great benefit to Boston. After speaking of Commissioner of Public Works Rourke and saying that he was working on his first big snowstorm, the mayor said that the method of handling this problem was one of the many things which showed the value of having a scientific man like Mr. Rourke, a Tech graduate, in city service. There is a vast field here for scientific men to save money for every municipality.

Frederick P. Stearns, former chief engineer of the Metropolitan Water Works and also of the State Board of Health, emphasized the growing importance of engineering. The growth in the numbers of engineers has been 150 per cent within the past decade.

Mr. Rourke said that he came as a product of the Institute. "I came when the tuition was \$200 and I had to hustle for it," said he. "I hustled and it did me good."

"If the grant can be given to the Institute," said Superintendent Rourke, "it will come back to the State a hundred fold. Massachusetts can not let the Institute go backwards."

Whitefield Tuck of Winchester said that for once he was present not to oppose but to favor "a cause so great and good." Later in his address Mr. Tuck showed that his change of feeling was only temporary by saying that he expected "to oppose about everything else that is to come up and would add to the State's expenditures." This remark met with laughter.

Harvey S. Chase, the expert accountant, gave figures to show how badly off the institution would be without State

aid

Walter C. Fish, manager of the General Electric Works at Lynn, which employs about 11,000 men, said that that business, a strictly technical one, had grown up through the development of technical training. No one, he said, could point to any manufacturing business which would not fail within a few years if it had no benefits from technical training. The graduates of Tech have played an important part in Massachusetts. A perusal of the catalogue will show this conclusively.

William H. O'Brien, president of the Boston Central Labor Union, had just arisen to speak when Senator Brown asked: "Do you appear today as Mr. Hostile O'Brien or Mr. Harmony

O'Brien?"

After laughter had subsided, Mr. O'Brien said: "I appear now as 'Mr. Harmony O'Brien,' but I wish always to be understood as opposing unwarranted expenditure of State money. In this instance, however, I am for this grant and I believe that in this attitude I am supported by the laboring people and others.

President Frederick W. Hamilton of Tufts College was the only one who stood up when those opposed to the bill were called and after nearly everyone else present had arisen to show their favor. He said that he did not desire to oppose what had been so well said by previous speakers, but desired that the committee should consider that there are other colleges and schools; that while Tech is a fine technical school, it is not the only one in the State. The time has come

when a policy for the State's relations with colleges and the higher schools should be considered. That question—much broader than that a of grant for Tech—is embodied in a resolve now pending. He favored subsidizing the student rather than the college, and said that he could not see how the plan for Tech would aid the students.

If the bill is reported favorably by the Committee on Education it is likely that there will be a joint hearing before the Committee on Ways and Means—we hope before the month is over. It is impossible to say when the Legislature will vote on the matter but from the universally appreciative attitude of the members of that body we have a strong hope that the vote will be taken before April 1 and that it will be favorable.

The Offer of the Springfield Alumni

With the exception of the campaign for state aid the most interesting development of the year was the offer of the alumni of Springfield and vicinity of a site for the Institute of Technology When it became rumored that the Institute might be obliged to move from greater Boston the alumni of the Connecticut Valley, after putting in about a week of solid work secured options on thirty acres of land very close to the city of Springfield. A delegation was sent to Boston to offer this land to President Maclaurin with the assurance that if he would give Springfield consideration a very large sum of money would be raised there for the purpose of securing the Institute. The committee stated that the Chamber of Commerce and the Board of Trade, as well as other civic, business and social interests. of the city, would start a campaign at once if there was a possibility of accomplishing the desired result. Dr. Maclaurin assured the delegation that the matter would receive serious consideration by the Executive Committee of the Corporation.

Although the Springfield men realized that it would be a very difficult thing to get the Institute to move away from Boston, and although Technology is first, last and all the time with the Connecticut Valley alumni, wherever it may finally locate, they are fully persuaded that if the Institute should move to Springfield it would soon create an atmosphere of its own in the sympathetic surroundings of that city and it would further be the most important educational institution of its kind in western Massachusetts.

The Review has received the following letter from the Springfield alumni committee having this matter in charge:—

Springfield Mass., February 6, 1911.

EDITOR TECHNOLOGY REVIEW:-

Actuated by the same feeling which is in the heart and mind of nine thousand other Alumni of Tech scattered all over the earth, the feeling of loyalty to the Institute and a desire to see it able to establish such a policy as will allow it to multiply a hundredfold its sphere of usefulness and to develop an even stronger individuality than it has been able to do in the past—actuated by this feeling the Alumni Association of Connecticut Valley offers to the Institute a site in Springfield.

It is generally agreed that the present site in Boston is a handicap and we believe that with Boston's inevitable growth in the near future, this handicap will apply to a site in Greater Boston.

There are sites and sites.

Located in Springfield, the development of Greater Technology would be more efficient and more rapid than in any other part of the Commonwealth and its individuality and prestige would be tremendously enhanced. In Springfield, in twenty years, Technology would dominate the city and we would be proud of the fact. As to the Springfield site, the officials of the Institute who have inspected it have expressed themselves to the effect that it was ideal and was ample for many years to come.

In addition to this site, which the Technology Club of the Connecticut Valley will give to the Institute, the land immediately surrounding it is of such a nature and in such an undeveloped state that two hundred acres more could be easily obtained surrounding the tract which is offered. We believe this location would focus the attention of all its Alumni to a greater degree than a relocation in Greater Boston. For fifty years, Boston has derived enormous revenues from the students and faculty of the Institute of Technology.

What has it given in return?

There may be reasons why the Institute should remain in Boston. There are many more reasons why it should remove from Boston. The present valuation of real property is already so high within ten miles of the State House that a suitable site sufficiently large for future development would

require an enormous expenditure which might better be used for greater equipment, more buildings or

higher salaries.

Within a ten mile radius of the site offered is a population of 250,000 and the great majority of this population is engaged in industries which call for highest technical skill for their successful operation. Within five miles of the site is the largest development water power east of the Mississippi River save that at Niagara. Adjacent to and within a half mile of the site are sixteen manufacturing plants of international importance; within a two mile radius is greater diversity of manufacturing and industrial plants than can be found in any city of this country within this radius. Within the ten mile radius are six highly diversified manufacturing centers.

Loyalty to the Alma Mater is a distinctive characteristic of the Anglo Saxon and this loyalty is most pronounced where the individuality of the University dominates its surroundings. An institution such as Tech should be located in the heart of a region where industrial and scientific pursuits dominate rather than in a community given over to distinctly academic or agricultural interests and in a place where the least expenditure of money will give the most efficient education,—where the undergraduate may feel that he is getting this education at the lowest fixed cost; where the governing body may know that these conditions are fulfilled.

We most earnestly ask all Tech Alumni to consider this matter carefully. This offer is intended to give the Institute a chance to come into its own and is inspired only by loyalty to Technology. Whatever may be the final decision of the Corporation, and wherever they may decide to locate, the Alumni of the Connecticut Valley will do everything in their power to help carry out the Tech policy.

Frank H. Page '85. E. E. Lochridge '05. G. C. Gardner '87.

A Splendid Tribute to Newell

After Congress had authorized the bond issue of \$20,000,000 for the work of reclamation of arid lands in the West, President Taft appointed a board of army engineers to make an investigation into the Reclamation Service and advise him as to this expenditure. The Outlook says it is a splendid tribute to the unremitting and unselfish work of the director of the Reclamation Service, Mr. F. H. Newell, '85, that this board made no recommendations differing essentially from the plans and policy which he has pursued.

Duquesne Follower of Despradelle

It is of interest that Professor Duquesne, who is coming to Harvard University to give instruction in architectural design, should have received his training at the Beaux Arts in Paris in the same atelier as Professor Despradelle, who has done so much for the architectural education of this country during the seventeen years that he has been teaching at the Institute of Technology.

In 1897, Duquesne won the Grand Prix de Rome and while pursuing his studies at the Villa Medici was always noted for the splendid character of his work. He is the first man who won this coveted honor in competition on a plan that was unsymmetrical and free, and which disregarded the generally accepted traditions of the profession. Many of his studies made in the atelier have been considered so excellent that they have received the serious attention of his successors ten or fifteen years later. As a draughtsman he is unexcelled and his work has always been distinguished for its restrained character. Among some of his Boston pupils are Guy Lowell, Allen H. Cox, F. L. W. Richardson and Philip Wadsworth.

Duquesne as a younger student did much work under the guidance of Despradelle, who was his "ancien" in the atelier, and it is noteworthy that Harvard, in selecting the best teacher to be found in France, should have chosen a man who will continue the traditions in teaching, which, under Professor Despradelle at Tech, have long made Boston a most important center of architectural education in this country.

—Boston Herald.

Professor Jackson retained by the British Government

Professor Jackson, head of the department of electrical engineering at the Institute, has been retained by the British government to advise the Postmaster General in regard to the value

of the great telephone property which the government is to purchase this year from the operating companies and make a part of the national post office organization. Professor Jackson has been expert adviser of the Massachusetts Highway Commission in telephone matters and is president of the American Institute of Electrical Engineers. He went to England on a preliminary consultation, but returned to America This commission on February, 7th. from the British government is a striking tribute to America, the Institute of Technology, and Professor Jackson. has provoked some comment on the other side of the water, but the selection was made after the mature deliberation which the magnitude of the work in hand demanded. The report will involve over 1,500 exchanges and more than half a million subscribers. capital of the companies is \$60,000,000.

Research in Electrical Engineering

Various lines of research are being carried on in the department, mostly under the direction of Professors Pender and Wickenden. Some of these relate to the effects of heat treatment on the magnetic qualities of silicon iron, certain transient phenomena that may occur in long electric circuits, the effect of high frequencies on the permeability of iron, the effective resistance and reactance of steel rails when conveying currents, the action of spark-gap lightning arresters with respect to frequency, the reflection of light from walls and ceilings, the disruptive strength of rubber-insulated coatings on wires, etc.' Certain of these are continuations of work started last year, and researches in each will be carried on as may be convenient and needful to get knowledge of the phenomena under investigation.

Herbert W. Jaques, '77, was elected president of the Massachusetts Golf Association, January 20th.

CARNEGIE RECOGNIZES DR. HALE'S WORK

An additional grant of \$10,000,000 for research largely inspired by the wonderful results of the Mt. Wilson Solar Observatory at Pasadena, California.

Announcement was made last month that Andrew Carnegie had given an additional \$10,000,000 to the endowment fund of the Carnegie Institution for research in Washington. One of the principal fields of its research is astronomy, the work being directed by George E. Hale, '90. director of the Mount Wilson Solar Observatory, at Pasadena, Cal. In a newspaper interview, Mr. Carnegie said that he visited the observatory a year ago, and discovered a genius in Professor Hale, who adopted entirely new processes in astro-physics. One of his photographic plates taken just before Mr. Carnegie arrived, revealed 16,000 new stars, and another plate made since that time, brought to light 60,000 more, some of them ten times larger than our sun, which had never before been seen by man.

Dr. Hale, director of the observatory, is now in Rome, having gone abroad some months ago for his health. Professor Walter S. Adams, assistant director, gave out a statement covering the discoveries announced by Dr. Hale during the last year, and giving an outline of what Mr. Carnegie may expect in the way of verification of his preduction that startling astronomical discoveries are at hand.

These discoveries, the scientists believe, will come in rapid sequence when the 100-inch lens for the new 230-foot telescope is brought here from France and installed. Among the prospective discoveries or demonstrations, the one probably of greatest interest to laymen is the effect of sun spots on the atmosphere enveloping this planet. The deductions of Dr. Hale and his assistants may revolutionize present theories of meteorology and make weather predictions an exact science.

"When Mr. Carnegie was here at the

observatory, a year ago," said Professor Adams, "he declared that Professor Hale was the greatest astronomer in the world today. Dr. Hale made one of the most wonderful discoveries of the age a short time before Mr. Carnegie's visit, when he determined definitely that sun spots were



George E. Hale, '90

great electrical vortices moving across the sun like terrestrial cyclones. We are now working on the probable effect of these sun spots on the earth and stars. We have already discovered that the spots do affect both earth and stars magnetically, and have something to do with magnetic storms on the earth. This is an old theory, but never before was

it definitely determined. We were able to do it by means of our sixty-foot

tower telescope.

"Our new 150-foot tower telescope will be completed in a few months. The telescope will be 150 feet long and the spectroscopical instruments will be placed eighty feet below that, making the entire telescope 230 feet long. There is nothing like this anywhere in the world, and it will magnify the image of the sun many times more than the present telescope, and we hope to make many new discoveries and deductions.

"We have been using our great sixtyinch reflecting mirror telescope for two years, with which we have made many excellent photographs of the sky, revealing thousands of objects and stars never before seen. Many of these objects are too small to be seen with other instruments, or if they are seen the image is too small to study the structure. Most of our work is studying the spectra of the stars and adding our results to those accomplished by other observatories in working out various problems. Our new 100-inch reflecting telescope, which we hope to have done in another year, as soon as a perfect lens can be cast in France, will add greatly to the work."

Mr. Towne Provides for Young Men

Even among his classmates, few were aware of the benefactions of Linwood O. Towne, '78, to deserving young men who were struggling for an education. In his will, which was recently probated in Salem, a provision is made for continuance of this assistance to men studying at educational institutions with courses uncompleted until they shall be graduated, or decide to leave to take some employment. These men will not be asked for payments on loans advanced where such payments would handicap the men too soon after getting employment. It also provided that the beneficiaries will not be pressed for payment of notes if not convenient, until five years after they have been graduated.

Death of L. P. Kinnicutt, '75

After an illness of some months Leonard P. Kinnicutt, '75, director of the department of chemistry, Worcester Polytechnic Institute, Worcester, Mass., passed away on February 6th. In his death the alumni body has suffered a great loss and the State and the Nation a tireless and resourceful worker in the field of sanitary chemistry. Professor Sedgwick, who was one of his close friends, contributed the following appreciation of Professor Kinnicutt's work

to the Boston Transcript:

"Science, education and the State have each and all suffered a heavy loss in the death of Professor Leonard Parker Kinnicutt, head of the department of chemistry in the Worcester Polytechnic Institute. The passing of a prominent politician or of a millionaire often excites more comment than does the death of a quiet yet accomplished worker in the fields of science and education, and it seems to me therefore fitting that the citizens of Massachusetts should pause for a moment to recognize and mourn the loss of one who has done high and helpful service in the fields of science and scholarship.

"Professor Kinnicutt's specialty was sanitary chemistry, a subject somewhat encroached upon but by no means eclipsed by the modern development of sanitary biology and in the subject to which he had chiefly devoted his life, Dr. Kinnicutt had made himself a leader of

the very first importance.

"Born in Worcester in 1854 he was graduated from the course in chemistry at the Massachusetts Institute of Technology in 1875. The next four years he spent in professional studies in Germany and during this period had the first warning of the insidious disease from which he has finally died. The writer made his acquaintance at the Johns Hopkins University in '79, where the young Kinnicutt was a pupil of Remsen. Proceeding to Harvard, the difficult degree of doctor of science was won in 1882 and here also Dr. Kinnicutt served as instructor in chemistry until made assistant professor at the Worcester

Since 1888 he Polytechnic Institute. had been director of the large and important department of chemistry in the Worcester institution, where he had long been a favorite and beloved teacher whose pupils are scattered all over the country in positions requiring responsi-

bility as well as technical skill. "Professor Kinnicutt's principal work has been done in and for the State of Massachusetts. In 1883, for example, he was admitted to membership in the American Academy of Arts and Sciences, which carries upon its rolls the leading scientific men of Massachusetts, and from 1902 to the present time he has served as chairman of one of its most important committees. He has had much to do with the New England Water Works Association, the Boston Society of Civil Engineers and the New England section of the American Chemical Society, of which section he has taken his turn as president. His name, however, is almost as well known throughout the whole United States as it is in Massachusetts, as is shown by the fact that he has been since 1903 consulting chemist to the State Sewerage Commission of Connecticut; has served as vice president of the American Association for the Advancement of Science, and as associate editor of the Journal for Industrial and Engineering Chemistry. Moreover, unlike many excellent American scientific men, Professor Kinnicutt had an excellent international reputation with membership in the London Chemical Society and in the Chemical Society of Germany, and honorary membership in the Society of Managers of Sewage Disposal Works in England. He was an authority on the disposal of wastes; on the sanitation of air, water and gas; on methods of chemical analysis, and on many other branches of the huge and important subject of chemistry which he had made so much his own. His latest work, prepared in conjunction with Winslow of the Institute of Technology and Pratt of the State Board of Health of Ohio, is the latest and by far the best treatise on the subject of sewage disposal in the English language, and one which bids fair to remain a lasting monument. Shortly before his death he was chosen president of the Section of Hygiene and Sanitation of the International Congress

of Applied Chemistry.

"I can hardly trust myself to speak of Professor Kinnicutt's personality. was unique, lovable, and altogether charming. Kindness and friendship such as his life exemplified could not further go. He was critical, yet just; fearless, vet considerate of others; honest to a fault; a hard worker; and to a degree nowadays unusual, an accomplished and cultivated gentleman."

The Spirit of Technology

The following is an extract of a letter from a graduate of a few years ago, who, in a measure, worked his way through the Institute:

"I beg to bother you once more to request that, if you know of the date the Committee on Ways and Means will report their findings to the Legislature, to kindly inform me. I would be very glad to go to Boston a few days previous and confer with the representatives from my home district, as well as to other members, in order that I may relate to them personally the kindness, the generosity and the spirit of helpfulness prevailing throughout the Institute, from the students to its President, towards the men that go there with limited means."

Technology Club founded in Worcester

On January 31 the Worcester Alumni held a meeting in co-operation with the Committee on State Aid which was so successful that it was decided to form a local alumni association there.

Spaulding Bartlett, '89, was elected president and H. M. Latham, '93, was made secretary. The executive committee, which consists of the president, secretary, F. E. Davis, '83, A. S. Heywood, '92, and L. E. Vaughan, '02, will decide on a name and draft the by-laws.



Copley-Plaza Hotel, to be built on the site of the Old Art Museum

Passing of the Old Art Museum

The old Art Museum on Copley Square is being torn down to make room for the new Copley-Plaza Hotel which is to be erected there. It is expected that the new hotel will be completed before January 1st, 1913. The plans call for what will be one of the most notable hotels in the country. One of the features is an immense ball room suite with a private entrance from the street. The ball room will have a stage and back of the stage will be a large serving room connected by elevator with the kitchen, in the basement. Over 600 people can be comfortably entertained in this room at banquets.

Fiftieth Anniversary Plans

Plans for the Congress of Technology that will convene in Boston April 10 and 11, to commemorate the fiftieth anniversary of the granting of the charter to the Institute, are progressing most satisfactorily. The committee now contemplates placing much emphasis on the social side of the convocation and indeed, if certain matters take a fortunate trend and the Legislature passes favorably on our appeal for an increased state grant, it is likely that the affair will take on the semblance of a love-feast.

It is expected that local alumni associations will all hold meetings on the memorial date. The committee will suggest a program for these meetings and in the event of any important announcements local associations will be notified by telegraph.

Illuminating Engineering

The subject of illumination and photometry has been added to the subjects taught in the electrical engineering department. This is treated from the standpoint of what is generally called illuminating engineering and is made an optional study. The instruction is by lectures, recitations and laboratory work under the direction of Professor Wickenden.