

The Technology Review

Published at Cambridge "A" Branch, Boston, Mass.
ROBERT E. ROGERS, *Editor*, Massachusetts Institute of Technology, Cambridge, Mass.

VOL. XXI

NOVEMBER, 1919

No. 4

TO THE ALUMNI OF TECHNOLOGY

YOU will agree with me that the hope of America lies primarily in maintaining the highest form of education to be found anywhere in the world. War has ended one era, and has opened up a new one, and in this new era as individuals and as a nation we are called upon to play a great part. Knowing that we can do nothing too good for the training of the young men and women who must bear the heat and burden of the coming day, Technology will never be content with anything but the very best in the field that she has made her own. As in the dark days of old she rallied to her cause innumerable friends, so in the present days of her power and prosperity she can do nothing less than go forward from strength to strength.

RICHARD COCKBURN MACLAURIN.

FROM THE PRESIDENT OF THE ALUMNI ASSOCIATION

Coleman duPont, '84, to Technology men

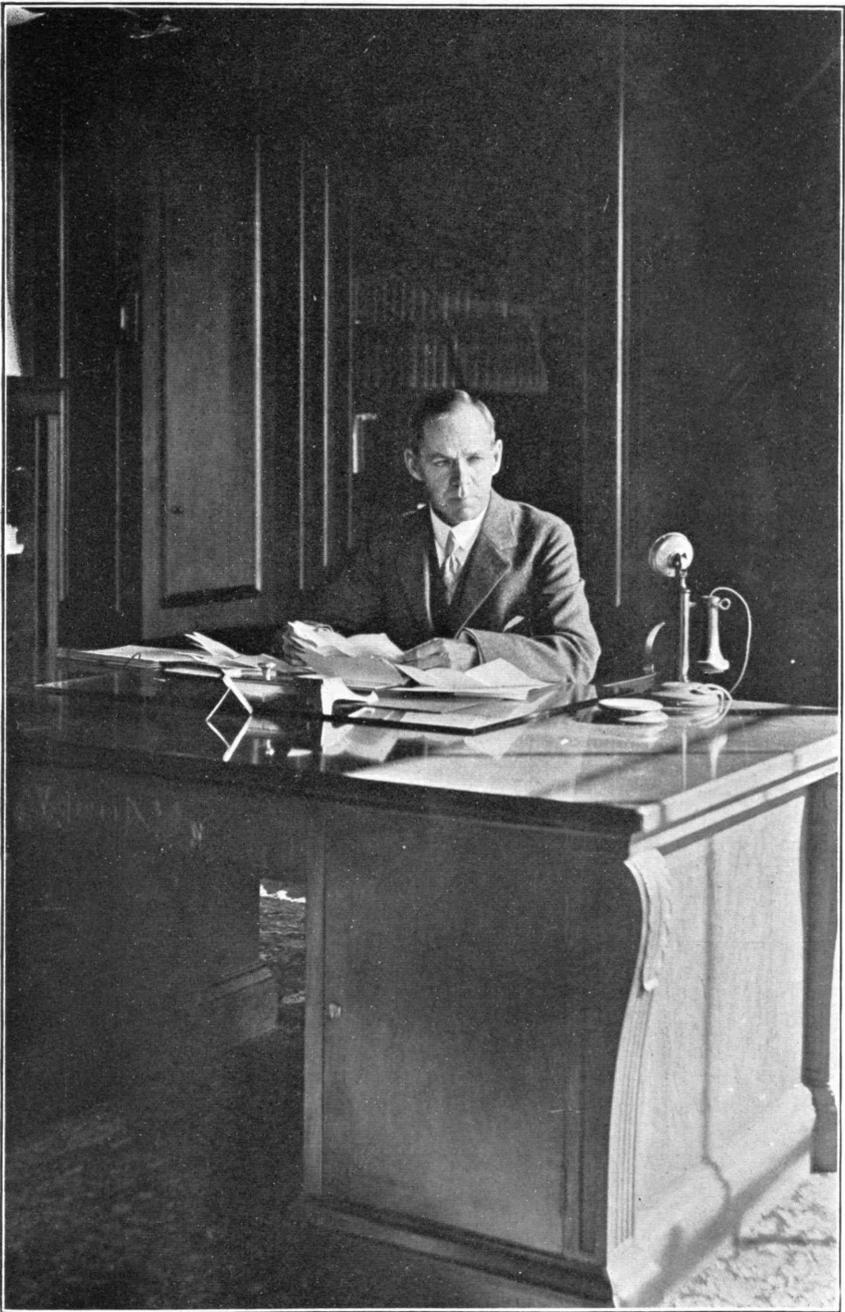
It is an interesting coincidence that at the close of this great war, Technology should again come before the nation, asking for approbation and backing. The Institute was founded at the end of the Civil War, when the advocates of technical education laid their plans before the Legislature of Massachusetts and asked for their approval and backing. Their success is known to every Tech man, and now we are encouraged to appeal, not only to the people of Massachusetts, but to the whole United States for the means of developing a greater Technology. Our national strength lies in our industries and our industries draw to a large extent upon the technical schools for their leaders.

We have solid foundations upon which to build this greater Technology. Our new plant, which has an outside capacity of two thousand five hundred men, can with relatively little alteration be accommodated to the needs of three thousand or thirty-five hundred men. The great need is money. 'MR. SMITH,' THE UNKNOWN BENEFACITOR OF TECHNOLOGY, HAS SET THE GOAL AT EIGHT MILLIONS ENDOWMENT AND HAS FURNISHED A POWERFUL INCENTIVE TO OUR EFFORTS BY PROMISING HALF OF THAT SUM IF WE, THE GRADUATES AND FRIENDS OF TECHNOLOGY, WILL RAISE THE OTHER HALF.

There is, I am sure, no necessity for me to go into the reasons for the raising of this fund—Harvard and Princeton have already launched their campaigns for large endowments to meet the rising cost of living and colleges and universities all over the country are preparing to follow suit. The arrears of the last two years of war, when the colleges were kept open for the benefit of relatively few students, must be made up, and provision made for the enormously increased enrollments of this and next year, when all of our young men are released from wartime service and can turn to the business of education once more.

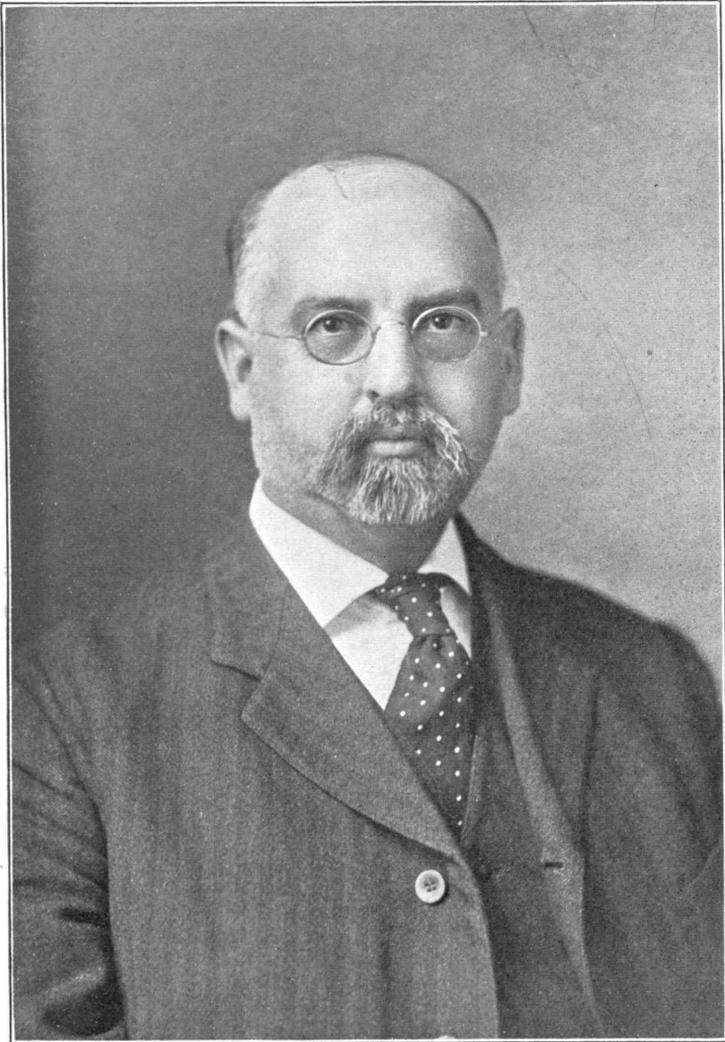
Technology must be ready to serve these young men who have already proven themselves worthy of the best she can offer; she must be ready to give a fuller measure of service to the country by turning out more men of power and enthusiasm than ever before in her history. The whole world of commerce is looking to America for opportunity and for leadership and America is looking to the men of science, the men of practical scientific training for guidance. Technology has proven herself able to develop such men and if she is given a free hand and a full opportunity, will make herself a bulwark of strength to the nation.

COLMAN DUPONT, '84.



DR. RICHARD C. MACLAURIN

From a recent photograph in his office



PROFESSOR CHARLES FRANCIS ADAMS CURRIER

1862-1919

Head of the Department of History

THE FACTS FROM DR. MACLAURIN

It is a condition and not a theory that confronts us

TECHNOLOGY cannot conduct a campaign for its endowment like Harvard, because she has not the wealthy alumni behind her. When I saw the list of names on the Harvard committee I could not help smiling. I think I could raise the \$10,000,000 from that committee alone. Multi-millionaires compose it, largely.

In order to raise the required sum Technology must depend upon the industrial leaders, men who are able to contribute \$500,000 or \$250,000 or \$100,000. We cannot expect it from the alumni.

Some of them are very wealthy and some of them are generous, but the average man of wealth is like the average man of slender means, some are generous and liberal, and some are just the opposite. So we are forced to the great industrial leaders, to the men whose fortunes were in part secured through the aid rendered them by men trained in the industries at Technology.

Increased production is the great aim of industrial training. It means efficiency, a greater output for the same or less expense. That is what Technology has to offer for the support which she asks.

Why does the institution need this? This is one reason: It costs over \$1,000,000 a year just for current expenses. Here is another: It requires eleven thousand tons of coal a year to heat the buildings and to supply the power needed for the machinery and laboratories used. The coal bill alone was over \$120,000 last year. There are only three ways in which the Institute can secure funds. First, from the students in tuition; second, from the State in appropriations; and third, from the public. It is impossible to get any more revenue out of the students, because they are paying more for their education today, than at any other time in the history of the Institute.

The Institute had two thousand students last year. If the running expenses alone were assessed upon the students, it would cost each student \$550 for the year. It would be impossible to collect that amount from the great majority of the students.

That brings me to a point that is not generally understood by the average citizen and that point is this: That every student we have at the university represents a loss. It costs more to teach him than he is to pay. The loss is made up through the endowment. We had two thousand students last year, we will try to accommodate three thousand students this coming year. Every additional student, far from meaning an increased income, to the institution, means an increased loss. This is true of all educational institutions, but more especially true of Technology.

The reason for it is this: At Technology the student is taught by giving him an opportunity to do things. This means a large and costly equipment. When we moved all the equipment we had in the old building to the new, we had to purchase an additional \$1,000,000 worth of new equipment. All this costly equipment in the shape of machinery is not needed in the usual college.

Further, in the average college, it is possible for one instructor to teach large classes, but in Technology, where each student is given individual attention, the classes must be small. The technical character of the instruction given makes it necessary for us to have one instructor for every six students, consequently it is clear

that an institution like Technology requires more money to operate it than the ordinary college.

We need the increased endowment not only to meet the increased cost of operation, but to expand it. When we moved into our new buildings, many thought we had extended our work too greatly. Experience has shown that the twenty acres of floor space which we now occupy is not sufficient to meet the demands for any large increase in numbers. Circumstances and the good of the community require us to expand our work and to widen the scope of our influence. We plan to do this gradually.

We could accommodate from three thousand to four thousand students this year if we had the facilities. We will be obliged to serve that number of students in two or three more years. We are planning to add to our plant to accommodate gradually more and more students.

The Institute has virtually become a national institution. The great states of the west have their state universities where instruction is practically free, and yet such is the quality of instruction at Technology that students from California and the far western states are coming in increasing numbers to the banks of the Charles for instruction. Growth means added expense for each student entered; that is why the Institute needs an increased endowment.

It needs an increased endowment also, because the industries have virtually raided our staff of instructors and we need more money to keep our professors and engineers with us. As a rule men follow the academic life because they like it, because it fits in well with their scheme of life. We had an engineer on the staff of instructors who refused an offer of \$50,000 from an outside concern. We are able to pay him only \$5000 a year. He is allowed to increase his income by consulting work outside the classroom. He is able to earn as much in consulting work as he does in the classroom and he says he is going to stay with the Institute because he can get along sufficiently well on \$10,000 a year and enjoy academic life, which he appreciates.

The great industries are keen for technically trained men because they know that competition is so great that improved methods mean the difference between success and failure in many instances. No institution of learning can hope to pay its staff of instructors the salary they could command in industry, but we must make some approaches to the wage that industrial service pays young progressive men. A man cannot marry and keep a family on \$2000 a year now in our large cities. Part of the endowment will go in paying increased salaries to instructors.

For two more years the Institute will enjoy an annual appropriation of \$1,000,000, a year from the state, but owing to the recent change in the constitution prohibiting grants of public money to institutions, not controlled entirely by the state, the institute will lose this grant in two years.

At present the state maintains eighty free scholarships in the institution. It is possible that these scholarships may be retained. Of course they may not but there is nothing to prevent the state from continuing to send eighty poor boys to the Institute as it has done in the past. The scholarships are grants of money to individuals and not to institutions, so that there is nothing to prevent boys of ability and industry who live in Massachusetts, from benefiting through the generosity of the state. But as I have said before, each new student means an increased loss to the university.

Unless that deficit is met by the endowment, we cannot hope to receive any more aid from the state. That brings us down to the only source of revenue left, and that is the great industrial leaders. The men that Technology turns out every year work largely to increase the fortune of others. They are engineers; they plan the great industrial establishments, build bridges and railroads and make the changes that

mean progress and improvement in business, but their efforts go largely to increase the fortune of the capitalist and the leader of industry, the banker and the investor. That is why the Institute is looking to the industries for support in realizing the endowment.

No man, not the average man who leaves Technology, is able to make a fortune large enough to enable him to give away \$100,000 or more before he is fifty years old. We have only five hundred alumni who have passed fifty years. Harvard, I dare say, has at least two thousand. Furthermore, Technology has not been in existence long enough to build up a great body of alumni of wealth and position. There are only ten thousand Technology alumni and most of them are young men struggling along.

The great expansion in the Institute is only recent. We did not have the room for the large classes, so that, although we are fifty years old, the classes in the past, have been all small compared to other great colleges. The result has been a small and youthful body of alumni who are unable to bear alone the burden of raising an endowment of \$10,000,000.

Mr. Smith has generously come to the assistance of the university again. He has already given about \$7,000,000 and has promised \$4,000,000, provided the Institute gets an equal sum. Of this amount, \$3,000,000 must be raised by the first of January, 1920, the remaining \$1,000,000 can be secured within any reasonable time, but the alumni are hoping to exceed the \$3,000,000 required.

RICHARD C. MACLAURIN.

TESTIMONY

MR. THOMPSON, of London, prominently identified with large interests in Europe and America:

"A striking instance of the esteem in which the Massachusetts Institute of Technology is held by men of independent judgment abroad is that of my friend, Mr. Archibald Denny, one of the famous engineering and ship-building family, of Dumbarton, Scotland, who sent his son to be educated at the 'Boston Tech.' As Mr. Denny said to me, it was a remarkable circumstance that he should have considered it wise to send his son from one of the most active engineering and ship-building centers, Glasgow, to Boston, where the activity in that line is in no way comparable, in order to give him the most thorough training possible. Since his son's return to Dumbarton, and entry into the firm's service, Mr. Denny has confirmed to me his complete satisfaction with the result obtained."

PROGRESS REPORT ON EDUCATIONAL FUND CAMPAIGN

From August 25 to October 20 — A story of organization

THE campaign which is to add eight million dollars to Technology's permanent endowment was launched in New York City on August 26 last. On that day Coleman du Pont, '84, president of the Alumni Association, announced that a committee had been appointed to work with Dr. Maclaurin in raising the fund.

This first committee, besides General du Pont, consisted of Theodore N. Vail, Charles A. Stone, '88, Everett Morss, '85, Otto H. Kahn, General Edmund Hayes, United States Army, and Charles Hayden, '90, all of whom are either alumni or members of the corporation.

The campaign was started with a boom that has since become familiar to all, the conditional gift, by Technology's former friend and donor, the mysterious "Mr. Smith," of four million dollars, on condition that the Institute raise an equal amount, of which three million shall be secured by January 1, 1920.

Of that four million, one million and a half has been pledged.

"Mr. Smith," it is reported, has since made another offer, more in jest apparently than anything, from which it must seem that he is enjoying highly the nationwide speculation about his identity. He offers to tell his name if any single individual will put up the equivalent of all his gifts to Technology, in the neighborhood of seven million dollars, and in that case, he will add another three million himself.

But this offer seems outside the range of practical politics at present.

Not so the concrete offer of four millions—and it is to secure this by doubling it, that the present campaign was undertaken.

The drive was first directed from the New York office, but as the Institute opening drew near, it was deemed wisest to concentrate the direction at Technology itself. It was determined that the campaign must be one of the personal approach, in view of the large amounts of money being asked for other educational institutions at the same time, and that every class and local association in existence must be organized to get in touch with its men.

For this purpose, Arthur H. Stubbs, '14, formerly of the First National Bank of Boston, was appointed Dr. Maclaurin's executive secretary during the campaign. Following this a special publicity organization was arranged for under Harold E. Lobdell, '17, formerly general manager of The Tech who only recently resigned his commission in the army to take up business life.

The most important office, that of director of the campaign was intrusted to Merton L. Emerson, '04, Course I, at present general manager of the Housing Company of Boston, vice president of the American Pneumatic Service Company, and the youngest man ever elected to the Corporation of Technology.

Mr. Emerson's job was to stay in Boston, while Dr. Maclaurin, Mr. Stubbs, and Professor William H. Walker, head of the department of Chemical Engineering, and formerly chief of the gas offense division of the Chemical Warfare Service, travelled to cover the principal cities of the country. Professor Walker has already covered St. Louis and Kansas City, and reports that "everything in the middle west is booming, particularly the building trades. The architects are busy. Big manufacturing plants are being erected, as manufacturing conditions are better there and the reliable labor

supply seems to be drawing these concerns from the east. The prospects therefore look good."

At the first meeting of the Alumni Council, of which a full report is given on another page, the situation was presented to the organization, and steps were taken to organize, particularly for Massachusetts and New England, from which has come the greater part of our student body. The alumni committee consists of Frederick K. Copeland, '76, I. W. Litchfield, '85, Edwin S. Webster, '88, William S. King, '94, Merton L. Emerson, '04, Bradley Dewey, '09, Arthur R. Stubbs, '14, and Professor W. H. Walker.

This committee has control of other smaller committees, one for each important kind of organization: the local associations, the class secretaries, the fraternities, the undergraduates, the war classes, the faculty, so that every man may be approached from as many different angles as possible, not with the idea of inefficient duplication but to appeal to each man from as many angles of his interest and associations as possible. There will be committees for large industries employing Tech men, and for possible givers not connected with the Institute. There are also committees arranged by industry: the leather committee, the textiles, wool and cotton, paper, and the like. An organization chart of the plan of campaign is printed herewith.

Meanwhile all the important Technology centers this side of the Rockies have been seen and the local alumni organized to deal with their cities or communities. The most important local club is, by reason of numbers and position, the Technology Club of New York, and following Dr. Maclaurin's presentation of the case to them, the club organized a central committee to take care of New York. Its chairman is William H. King, '94, assistant corporation counsel of New York City and member of the Institute Corporation, and the other members were Ira Abbot, '81, founder of the New York Tech Club, Edward H. Huxley, '95, president of the United States Rubber Export Co., Robert S. Allyn, '98, patent lawyer; Lester D. Gardner, '98, editor of "Aviation" and president of the New York Club; Frank C. Schmidt, '95, general manager of the Standard Wood Treating Co.; T. C. Desmond, '09, president of the Newburgh Shipyards Corporation; and Edward P. Brooks, '17, assistant to the general manager of the John Curtis Corporation.

At a subsequent meeting of the corporation, Mr. King told the members that "the alumni in the vicinity of New York are back of this drive to the limit. One hundred committeemen will personally solicit the fifteen hundred alumni."

In the middle of September, Mr. Stubbs made a visit to a number of cities in the middle west where Tech men are numerous, including all the important industrial centers, to prepare the way for Dr. Maclaurin's later trip.

At the Council meeting on his return, Stubbs told of how he was everywhere received with enthusiasm engendered by the idea, that everywhere organization was started and men pledged themselves to see to it personally that every possible Tech graduate available would be approached and persuaded to give or work, or both.

On October 13, Dr. Maclaurin and General du Pont left New York on a two weeks trip through the middle west. It was a long and hard trip, covering a great deal of ground and meeting a great number of men in a very short time, but it was deemed necessary in order to bring home to the groups of Tech men out of touch with the east the necessity for prompt and efficient action in the two months remaining, if the four millions were to be raised by January first.

The itinerary was as follows: New York City, Cleveland, Akron, Chicago, Milwaukee, Minneapolis, Kansas City, St. Louis, Indianapolis, Cincinnati, Detroit, Buffalo and New York again on October 27.

By the end of October the most important work in New England was the

thorough organization of the class secretaries. Dinners were on each Thursday, October 16, 23 and 30, at the Engineers Club and the Walker Memorial, first to the class secretaries and later to the full committee from each class. At the meeting of October 23, each class was pledged to organize within the week, and the first edition of the Red Book of information and selling arguments was issued. The men were sent away with a stirring benediction by Everett Morss.

The benediction must have worked because at the next meeting, October 30, a large one in the Memorial, there were only a very few classes, mostly in the 70's and early 80's, that had not organized and could report a small pledge, obtained before work was really started.

The amount of ordinary pledges chalked up that night was about \$50,000, not including the class of 1885 which announced a subscription of \$255,300 from a few men. The leading class among the younger classes, the poorer men, was Denison's, 1911, which led with \$2,578, and which also, one week before was the first class to organize thoroughly, plan its campaign and get out its first selling letter.

All this was considered a good start by the committee, with over \$300,000 pledged from the classes alone before the campaign was more than a skeleton organization.

So things stand as we go to press on November 1. The January number of the REVIEW should be a full record of triumphant accomplishment. This can be only the story of careful, efficient and enthusiastic organization and preparation. The alumni have been listed, card catalogued, indexed. The local centers and class secretaries are being supplied with information and ammunition. The fight is on.

Remember the slogans.

To sell Technology to American industry. This is a sales campaign, not a begging campaign. Organize it!

Give and get! Give every penny you can give, but get others to give too.

Remember you paid for only a part of your education. The Institute paid the rest. Pay up your back debts.

And, finally, THE KEYNOTE of the campaign by Director Emerson.

GET THE LARGEST POSSIBLE PERCENTAGE OF THE ALUMNI AND FORMER STUDENTS TO CONTRIBUTE SOMETHING. A HIGH PERCENTAGE, WHEN THE YOUTH OF OUR MEN IS TAKEN INTO CONSIDERATION, WILL AFFORD CONVINCING ARGUMENT TO MANY SUBSTANTIAL BUSINESS MEN OF NO COLLEGE AFFILIATION WHO ARE WILLING TO AID US IF THE BACKBONE OF TECHNOLOGY, ITS ALUMNI, HAS DONE ITS SHARE.

PERSONAL CONTACT IS THE ONLY MEANS OF GETTING THIS HIGH PERCENTAGE.

GET TO WORK AT ONCE

TECHNOLOGY never fails, but as Dr. Maclaurin well says, the message that must be brought home is this: "The destinies of Technology are in the hands of its alumni. Once more their loyalty must be expressed in action. Failure would be a disaster of the first magnitude. No mere perfunctory will suffice. Tech men must work like beavers, and they must give and get till it hurts. Never before has their devotion to their Alma Mater been put to such a test."