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"A University for the Southwest"

AN ADDRESS DELIVERED
BEFORE THE

COMMERCIAL CLUB

OF ST. LOUIS.

BY

DR. DAVID FRANKLIN HOUSTON,

CHANCELLOR OF WASHINGTON UNIVERSITY

COMMENTS AND HISTORICAL SKETCH BY THE
PRESIDENT OF THE BOARD OF DIRECTORS

AT A DINNER GIVEN BY THE CLUB

SATURDAY, OCTOBER 31ST, 1908

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Mr. President and Gentlemen of The Commercial Club:

I confess at once that there was no propriety in selecting as the subject for my remarks "A University for the Southwest." I am aware that it involves a contradiction and an impossibility. A university has no limitation of subject matter or area. If it deal with any special part of the field of knowledge, or have any of the marks of sectional or sectarian bias or partisan affiliation, it cannot, in the nature of things, be a university. There was in my mind when I telephoned my subject to your Secretary, a thought which in a measure justifies the wording; but perhaps I might better have phrased it "A University in the Southwest."

I have it in mind this evening to present two propositions for your consideration with the hope that I shall sustain them at least in reasonable measure. The first is that there is great need of an institution of real university rank in the southwest; and the second, that the greatest opportunity for the development of such an institution presents itself in the city of St. Louis on existing foundations.

Perhaps it may clear the way if I indicate with some definiteness the sense in which I use the word: "University." I use it in quite a different sense from that in which it is popularly used and applied in this country, and attach to it the meaning that it carries in the minds of those who are familiar with such institutions as Harvard, Columbia University, and the University of Chicago. Like these typical American universities, any university might have strong colleges with large and well prepared undergraduate student bodies, and well organized professional departments, such as Law, Medicine, Dentistry, Education and Business, but it should also have as one of its distinctive departments a graduate school whose function would be to furnish advanced training to those who desired to specialize, to pursue research work, and to lay large the scientific foundations for the practical activities of the world.

Of real universities, there are other distinguished marks of a physical character; and they suggest a complex social environment, access to large collections of books, pamphlets and manuscripts, an elaborate provision in the way of

scientific laboratories and shops, immense stable productive funds, a large income, an imposing array of buildings suitably located, and the presence of a relatively large number of mature students working towards the higher degrees. There is no university of the first rank which has not within its own walls collections of books and pamphlets ranging in number from 200,000 to more than a million, with access to many more in its community in public and private collections, and none in this country without laboratories and other scientific arrangements valued at from one-third of a million to two millions of dollars, productive funds of from four to twenty-five millions, an income of from three-fourths to one-and-three-fourths of a million, with the exception of Hopkins whose scope is limited, and buildings and grounds representing a cost of from one to twelve millions of dollars.

Speaking in 1885, twenty-three years ago, President Eliot asserted that there was no university in America, but only aspirants for that eminence (and there are to-day 850 such aspirants.) That assertion could not be repeated to-day, and the changed condition is due in no small measure to President Eliot and two other great leaders now gone, the late President Gilman and the late President Harper. America to-day possesses a half dozen institutions of real university rank whose doings are eagerly watched by the university circles of the world, and at least one of these is perhaps second in efficiency to no other in existence.

But in all the middle west and southwest, in all the region south of the Potomac, and west of central New York and Pennsylvania, there exists no institution to-day which satisfies the conditions for real university work except the newest of the universities, the University of Chicago. In all the southwest outside of St. Louis, there are fewer volumes in the libraries and fewer students of real graduate rank than may be found in any one of several of the great privately endowed institutions of the country, and the combined value of the apparatus, or of the buildings and grounds, or of the amount of the productive funds of institutions in the southwest, outside of Missouri, would not exceed the corresponding items for one of several of the privately endowed universities of the east. Their aggregate income is not greater than that of Harvard and Colum-

bia for current expenses, and is less than that of Harvard for all purposes. They contain fewer students doing graduate work even on the standards prevailing than does Columbia, Harvard or Chicago; and their professional schools require either the same or lower requirements for admission than do their own colleges of arts. There was only one institution in the entire south which really satisfied the admission standards set up by the Carnegie Foundation at the outset and it was not eligible for sectarian reasons, and only one university in the middle west and southwest otherwise eligible which satisfied those conditions, and that was Washington University; and in 1906 there was no institution in the section of the country south of a line drawn through St. Louis and stretching across the country to California eligible for membership in the Association of American Universities, except one. Of the Doctor's degrees granted in this country in one year, 332 in number, all were granted by privately endowed institutions east of the Blue Ridge mountains and north of the Potomac except 69, and of these 35 were granted by the University of Chicago, another privately endowed institution, and the few remaining degrees were conferred by institutions north of a line drawn through St. Louis.

Furthermore there is no institution of university rank in the middle west, south, or southwest, except Chicago and possibly Michigan, whose student body is drawn from a sufficiently extended area to justify us in regarding it as other than a local institution whose function is to minister to community needs. This fact in itself is of tremendous significance when we consider that the supply tends to stimulate the demand, and that thousands in the middle west, south, and southwest, who aspire to higher training and can find a way, are compelled to travel enormous distances to discover their opportunity. In nine institutions of high rank there were registered in one year from the southwestern states, mainly in the graduate and professional schools, 1600 students, more than one-third of which were enrolled in the University of Chicago.

Perhaps you are wondering if I have not forgotten the existence of great state establishments like Illinois, Michigan, Wisconsin, California, Missouri and Texas, with their thousands of students, hundreds of professors, and millions of income.

On the contrary I am very mindful of them and of their overshadowing importance and service to their states and to the nation. I am not now considering the relative usefulness and value of the different sociological factors in our nation, but simply the nature, characteristics and existence of institutions of real university rank. I yield to none in loyalty to our great state institutions or in admiration for their achievements and for their aggressive spirit of helpfulness. They are nobly fashioning the minds of thousands of young men and women; they are the most potent forces in the development of our great systems of public schools; they, in conjunction with our Federal Department of Agriculture, are remaking American agriculture, arousing the farmer to a higher sense of his mission and to a realization of his privileges; they are mightily encouraging industrial life in all directions, and are helping to remake these commonwealths. For fourteen years I labored faithfully with others to upbuild two of them, and to bring the people whom they serve to a consciousness of their value, to a realization of the fact that the extent of their services was limited only by the amount of their income, and that expenditure on them was an investment and in no sense a burden. To assist further in this task under guidance would be more than a privilege for me; it would be a solemn duty gladly discharged. I shall pray that this and other states may establish and fix the financial and academic policies of these institutions which their authorities may urge at whatever apparent cost, because I know that they will build up our industrial and intellectual life.

I attempt no statement of their comparative value. Usually nothing is more fruitless or vicious than a comparison of the relative value of different forms of education, unless it be a comparison of the relative merits of different classes of individuals in a community. Every class of men that has made for itself a permanent place in the social system may be regarded as an invaluable and necessary part of it, and is entitled to fair consideration. The captain of industry and the capitalist are as truly productive laborers as the mechanic and the farmer, the architect as truly a laborer as the carpenter, and the teacher no less one than the architect; the lawyer and the judge who administer justice, the physician who keeps the human machine

in good order, the business man who watches with wide vision the operation of industrial forces, and the statesman who coordinate our varied political and economic activities, are immensely productive.

The sole test is service. The sphere or direction of service is a minor consideration. And as with individuals so with institutions, and the service of the state institutions will perhaps of necessity for a long time to come not be conspicuous in the field of university work properly speaking. Less than a year ago I heard the great leader of education in America tell the Association of State University Presidents that it was yet to be demonstrated that any state would support, or could have, a real university. Under the circumstances this was a bold thing to say, but lack of boldness has not been one of President Eliot's most marked characteristics; what he thinks he says, and he thinks with a precision of a machine. We may not agree with him but we must reckon with him, and he is a rash man who enters the lists against him.

The difficulties in the way of the development of a real university by the state are numerous. I can only briefly indicate some of them, and I do so hoping that the attempt may assist in overcoming them. Location in small communities remote from the complex flow and friction of life in large urban communities, which in themselves are immense educational assets—communities so small in many instances that they possess only those educational facilities which are placed there by the direct expenditure of money, dollar for dollar—operates as a tremendous handicap in most instances. And then there is the obligation resting upon these institutions of making connection with the average high school of the state and the uniform policy of furnishing instruction without tuition or with nominal tuition, with the consequent result of vast numbers in all the undergraduate classes and characteristically in the freshman and sophomore classes, and the overwhelming demand made by these upon the equipment and funds of the institution. That the presence of large numbers of undergraduates presents serious difficulties may be seen by a brief glance at the facts. There are four great state institutions in the middle west which all admit to be typical, Michigan, Illinois, Wisconsin and Minnesota, that have an aggregate of 16,000 students and

an annual income of approximately four and one-half millions, but their academic appliances and furniture represent a value of only about a million and three-quarters dollars, or less than that of one privately endowed university. Their aggregate libraries contain less than 600,000 volumes, or about two-thirds the number in the library of one privately endowed university which has a million and a half more within easy reach. Of their total student body of 16,000 a few more than 500 were in graduate work properly speaking, a number smaller than that in the graduate schools of one of several privately endowed universities, and their professional schools rest not upon a graduate or college requirement but upon a high school foundation, with the exception of departments here and there; and it should be further noted that of the graduate students in these and other state institutions only a few proceed beyond the work required for the Master's degree. Contrast the facts in some of the privately endowed universities. Of the University of Columbia's registration of 3,800, 800 were in graduate work and 1,000 others in professional schools with a requirement of college work; of Harvard's 4,000, 1,600 were in graduate schools; of Chicago's 5,000, over 1,000 were registered in the graduate school of arts alone.

The meaning of all this is plain. Pressure of undergraduate numbers in the free state institutions will militate against the early and effective development of real university work. Even if the income were ample, the spirit of the institution would be dominantly that of the college; the college side inevitably tends to run away with that of the university. As President Pritchett observes, "To place a graduate school on top of such an organization has meant little, the institution remains a college with a graduate school annexed or incidental. Organized unity alone cannot make of a congeries of schools a university; there must first be breathed into this union a true university spirit. It is a simpler undertaking to create an institution *ab initio* and have it conform to the spirit of the age in university ideals, than to develop a true university atmosphere about a great undergraduate college with traditions already established." Witness the rise and achievements of Hopkins, Chicago, Cornell and Stanford, and contrast the painful progress even of Harvard, Columbia and Yale. Even now Chicago feels this pressure and

is drawing back, the President having already suggested the necessity of limiting the undergraduate numbers.

But there is a third difficulty in the way of the development of real university life and work in state institutions that lies at the very root of things. No great university can be built up and sustained unless the university can secure and keep a fair number of the strongest, greatest, most creative and inspiring of the world's teachers and investigators. To do this requires much money, high salaries, not because any great man in this any more than in any other sphere works for money, but simply because money means relief from worry and command over necessary implements, in short, means efficiency. Men of real creative genius are rare and difficult to get, and really cannot be paid, but when you get them, when you secure a Huxley, a Pasteur, a Tyndall, and a Koch, you have a university—the problem is solved.

But much more is required. There is need of great laboratories and libraries and money for operating expenses. An eminent German scientist when asked for his idea of a university replied that it was a laboratory and a bank account, and another said that if he were going to build a university and had large funds he would first equip a laboratory, and then if his money held out he might erect a building, and then if he had a surplus he might employ some professors, if he were sure of their capacity. In addition to these things there must be a mature university student body, considerable leisure on the part of professors for research, a sympathetic environment, and absolute freedom in subject and method. As President Wheeler aptly says, "A university with blinders on is no university at all. It must be sensitive to the needs of the community, but it will not be a university if it is swept about by every wind of doctrine, if it is upset by every wave of change. It is a compass needle, and not a weather cock." The university, in the last analysis, rest upon the character of its teachers and students, and men of the right stamp are the hardest things in the world to get. In the face of current legislative attitude, no state university has yet been able to create the conditions requisite in these directions, and consequently they have been nurseries of great men for the privately endowed institutions, which are free in greater measure from these limitations; and unless the trustees and the community can satisfy these con-

ditions and pursue this policy, whether they affect public or privately endowed establishments, the university fails.

Dr. Pritchett, in making a recent report for the Carnegie Foundation, as the result of a careful survey of higher educational life and conditions in this country along lines similar to those I have followed, makes this positive declaration, "I am convinced that it would be of immense value to the educational system of this country if a few strong universities could be established with generous facilities for social intercourse, but without undergraduate colleges. Such institutions would, if properly endowed and supported, constitute an independent influence in the formation of university standards which could not fail to benefit all universities alike. It is to be regretted that some of the newly founded institutions did not forego the prestige of an undergraduate college for the sake of this leadership." I would not agree with Dr. Pritchett as to the necessity for the elimination of the undergraduate college. Such colleges will continue for a long time to come to be a characteristic feature of American universities, distinguishing them especially from the German. It is requisite only that these colleges be so organized as to prevent them ultimately from crowding out the professional and graduate schools and preventing the development of a true university spirit. But I do agree unreservedly with Dr. Pritchett that it would be of immense value to the educational system of the country if a few more institutions doing effectively strong work of real university grade were developed, and I would, with equal confidence, express the opinion that it would be of more value to the educational interests of the country, if one were developed here on existing foundations than any where else in the nation, and that it is not probable that any institution elsewhere in the southwest will satisfy the need.

A rare opportunity is presented for the execution of this purpose. Fortunately situated in the very center of the nation near which the center of population will fix itself for all time, with more people, I am told, within a radius of five hundred miles than other city of the country has, in the midst of amazing and growing prosperity, at the point of touch of north, south, east and west, with great converging lines of transportation, and dominating especially the south and south-

west which are to-day the sections of most rapid development and largest opportunity, St. Louis is already one of the great cities of the world and is just at the beginning of her career. No one dare attempt to picture what she shall be even within the lives of those present within this hall. She has laid broad her physical and industrial foundations, and it is evident that she is at the beginning of an intellectual and spiritual renaissance. One sees evidence of this in the erection of great churches, the completion of a great temple, the laying of the foundations of a magnificent cathedral, the planning of a noble library, generous provision for parks, for the artistic training of the people, the rounding out of a great system of public schools, and the refounding of a university. Equally important is the wholesome state of the social mind and the ordering of the domestic life, which presents a spectacle of gentility, decency, and purity almost unique in the life of large cities in our day. Couple with these things that open mindedness, tolerance and sympathetic understanding of all sections that result from the life that so rapidly and unceasingly flows in and through here, and the picture is complete.

Because St. Louis is a great city and must be a greater, she must and will have a great university, and thereby satisfy her greatest local, sectional and national need. Every great city in the civilized world, except in China, India and South America, has a great university, in the proper sense of the word—Paris with its university of 15,000 students, Berlin with 14,000, St. Petersburg, Moscow and Vienna with 8,500 each, London with 6,000, Munich, Leipzig, Madrid, Tokio and Chicago with 5,000, Boston, New York and Philadelphia with 4,000, and Baltimore with the Hopkins, small in numbers but great in quality.

But this is not all. There is no institution of real university rank with 4,000 students in regular course which is in a city of less than 500,000 people, and there is no city in the United States or northwestern Europe of three-quarters of a million people with a university of less than 4,000 students; and there is no institution of real university rank in this country, except perhaps one, which is not in a city of over 100,000 people, and no city of 300,000 people or more which has not one or more institutions of considerable size and great influence, with one exception. Buffalo enjoys the bad eminence of being the only

large American city ungraced and unredeemed by a college or university.

The advantages of a city location for a university are obvious. They lie not more in the large collections of available books and documents and in the interplay and friction of the minds of the strongest men of the nation, and in the frequent presence of the great men of the world, than in the existence of great institutions like courts, manufacturing establishments, architectural monuments and undertakings, and engineering enterprises, which make it possible for the student and *the professor as well* to keep abreast of the times, and to see the latest demonstrations of applied science.

The conclusion is irresistible. The time is opportune for formulating a sound policy. Things are still in the making, and traditions do not unduly impede and hamper. The past has been highly creditable. Great service has been rendered and distinguished men have been contributed to assist the city in all of its undertakings; but the foundations have been relaid and the superstructure has been started. The standards of admission and of work of Washington University are high and the charter under which it operates insures catholicity and stability.

May I pause here and may I, as a citizen and an educational servant, express my appreciation of the rare combination of foresight, business skill, educational comprehension, and wise and unselfish spirit of philanthropy that have marked this refounding. I have struggled too long and have seen institutions—still see them—too hideously suffering financially and educationally by reason of bad location, crowded quarters, ill planned, ugly and cheap housing, not to be thankful for what has been done and happily done for all time. It had to be done sooner or later, and I fail to see how it could have been more opportunely or beautifully done, or done at all with any degree of satisfaction, if it had not been done when it was done. The city may well feel pride in having to-day the most extensive and noble urban university campus, and the most superb educational plant both as regards its general lines and its educational adaptation, in America, and I know it feels a sense of gratitude towards those to whom it is due.

What instruction shall such a university furnish and what service shall it render? It shall continue to offer and shall

extend what it now offers in Arts and Engineering, in Law, Medicine and Dentistry, and make fine use of its unique opportunity in Fine Arts and Botany, and do much more. It shall develop departments of Commerce and Education, strengthen the biological sciences and relate them with the help of its Medical Departments to the problems of individual and community health and living; elevate the standards of its professional schools; create a strong graduate school for research in Engineering, Arts and Science, and Dentistry and Medicine. It shall continue to furnish you with trained men to head your public works, to man your electric plants, to do expert service in your great chemical and other manufacturing plants, to build your bridges, to plan your tunnels, and to dig your subways. It shall supply you with able lawyers, just judges, skilful physicians; train your teachers and your architects and your artists. It shall furnish you with expert advice in matters of taxation, problems of labor and capital, and municipal administration; it shall strengthen, organize and lead your intellectual forces, and through its researches in pure science extend the bounds of knowledge and make the city the intellectual capital, as it is to-day the financial and industrial capital of this section, fitting its citizens for the position of leadership that this section is destined to assume in our national affairs.

It shall not sacrifice the future while trying to serve the present. It shall not ignorantly serve the spirit of the age, recognizing, as President Wilson insists, that the "call is for efficiency but not for narrow, purblind efficiency." "It shall remember that practical science gets all its sap and vitality from pure science;" that the great practical inventions and applications wait upon the message of pure science, and as Dr. Montgomery asserts that if the man of pure science were abolished the practical man would have to discover him anew or mark time.

Most men overlook how practical pure science is and how powerfully it has served the world. Modern medicine is the creation of the laboratory scientist. Virchow, the great master of the study of diseases, laid the rational foundations of one branch of medicine, and his results were made possible by the simple discovery and use of the microscope. Harvey Cuvier, Agassiz and Huxley, were laboratory men; Pasteur

was a chemist; and Cohn, the teacher of Koch, a botanist. The serum for diphtheria was discovered by a professor of pure science; Davy, a professor, gave us the miner's safety lamp; Faraday the dynamo; and the submarine cable, the long distance telephone, and the wireless telegraphy are due in large measure to the work of three pure scientists, Lord Kelvin, Professor Pupin, and Professor Pierce. The doctors of philosophy in Germany are winning for an appreciative nation the race for intellectual and industrial supremacy.

Finally, such a university shall help to work to a successful conclusion this great experiment of ours in self-government. It shall train men to look to the essence of things, and to set up no distinctions of a superficial or accidental nature; to bestow no honors on men simply because they are either rich or poor. They shall know no special privileges and have a deadly hostility to favoritism. They shall see that, if democracy has any meaning historically, it signifies the recognition of merit, and that political progress is measured by the substitution, for whim and caprice, of the serene rule of law. They shall see the truth of the words of William Allen White: "There is a thrift of money a thrift of talent, a thrift of character. And every human being has a right—moral as well as legal—to express himself differing from all creatures on this planet, in the terms of thrift that best suit his soul. And that right has but one restriction; he must express himself honestly. And honesty must mean, not mere legal honesty, but moral honesty. And moral honesty will keep him within the Golden Rule; will keep him from growing at the expense of others; will prevent him from getting behind the 'laws of trade', as the tiger hides behind the jungle law; but will nevertheless give him freedom to develop, to expand his soul, and come to his full fruitage. There is a cult in our western civilization found in the politics of every state and government which would make men equal by arrested development. Because many men grow rich dishonestly, certain doctrinaires of social science would say that all must fare alike. Because genius often is selfish and blind, these doctors would strangle talent. And because strength of character sometimes make men oppressors of their fellows, these social theorists would make all men mediocre. There is no other fallacy in the world to-day so vicious, because to the weak it seems so plausible, as the

notion that the Kingdom of Heaven may be ordained on this earth by putting all men through a common, state-regulated-mold, paring off the overlapping of the great, and puffing the small up to the standard size by law * * * If a man desires to be an inventor, or painter, a scientist, or a tight-rope walker—it is his concern. He should be allowed to specialize. If a man desires to let his soul grow and go into the world teliing of the joy of it—that should be his privilege. There must always be the man with ten talents, and the man with one talent. And the main business of the state should be so to adjust the relations between them that the man with the ten talents shall not deal unfairly with the man with one. But to wipe out the distinctions between the two by making each a man of five talents,—that is folly, and the right sort of education should keep men from such folly. There should be peace on earth and there must be good will among men. But men must grow spiritually before that order may be established; law may not establish it. "

That it would be sound policy for St. Louis to develop such a university; that in no other way can she so powerfully serve her own interests, and thus all humanity, with her large surplus wealth, and that this Club can consider no policy that will promise more for the city, does not seem to admit of doubt. May we not recall with approval the words of Huxley: "I cannot say that I am in the slightest degree impressed by your bigness or your material resources as such. The great issue, about which hangs a true sublimity, and the terror of overhanging fate, is what are you going to do with all these things? What is to be the end to which these are to be the means?—the moral worth and intellectual clearness of the individual citizen;" and those of President Eliot: "The true greatness of a state lies not in territory, revenue, population, commerce, crops, or manufactures, but in immortal or spiritual things, in the purity, fortitude, and uprightness of its people, in the poetry, literature, science and art which they give birth to, in the moral worth of their history and life. With nations, as with individuals, none but moral supremacy is immutable and forever beneficent."

Mr. President, Gentlemen of the Commercial Club and Guests:

I have listened with much interest to the scholarly address of Chancellor Houston on "A University for the Southwest," and am in fullest sympathy with the views he has expressed. I especially recognize the wisdom of our gradually developing a graduate school. This, by necessity, will be a matter of slow growth, but even now, we have available for our Shaw School of Botany (through our close affiliation with Shaw's Garden), probably the largest and best accumulation of botanical teaching and research material in this country, the library and the herbarium being incomparably the best in the land. The Shaw endowment fund, while valued at nearly three million dollars, has only just commenced to be productive, and it would seem only a question of a short time before the Trustees will be able to vitalize this vast amount of material by strengthening our teaching staff. No botanist in this country, it matters not how eminent, could well refuse a call to such a rich field. However, as Chancellor Houston says, the proposed graduate department is not expected to overshadow, but simply to supplement the undergraduate body in such numbers, as will render them mutually helpful, and make for the maintenance of the highest standard of both graduate and undergraduate work.

After a careful study of the conditions and underlying influences which have led to the development of practically all the great universities of the continent in the largest cities, and which are at present revolutionizing the educational centers of Great Britain, I feel absolutely convinced that the mental activities and educational facilities of a great city insure our having at least four important metropolitan universities in this country; one, Harvard in Boston, the metropolis of New England; another, Columbia in our national metropolis, New York; a third, the University of Chicago, in the metropolis of the northwest; and a fourth, the Washington University in St. Louis, the undisputed metropolis of the southwest.

I have seen published, the statement, that within a radius of five hundred miles of New York, there are at present twenty-nine million people; within the same radius of Chicago, twenty-

five million; and within the same radius of St. Louis, thirty million; now, while the water environments of the other cities probably have much to do with these figures, we must also remember, that the great Southwest is as yet barely scratched.

The foundations of a great University have been securely laid. The work of the institution has rapidly expanded within the last few years, and to-day instruction is being given in regular departments, to a student body of approximately eight hundred, distributed as follows:

College of Arts.....	216	(Graduates12)
Department of Engineering.....	182	
School of Law.....	96	
School of Medicine.....	186	
School of Dentistry.....	95	

In addition to this work, the University is rendering service through a variety of channels. It is giving instruction through the Art School, to 442 men and women; through the Correspondence School to more than 200; and has recently undertaken a special service to the schools of St. Louis and vicinity, through regularly organized Saturday classes for teachers, in which more than 100 have matriculated. The University is thus reaching, through its own immediate machinery, 1,500 individuals, and it is reaching, through the secondary schools organized under its direction (i. e. Smith Academy, Manual Training School and Mary Institute), about 900 boys and girls.

That you may form some sort of an idea of the service which will be rendered in the future by the University, with its new buildings, equipment, endowment, and larger field, I crave a few minutes of your time for a hasty sketch of its past history. Last year, as you know, we celebrated our fiftieth anniversary, and only three years ago last spring we moved into our new buildings, and commenced to enjoy the benefit of our increased facilities. It is of the old University I would speak. Housed in a grimy, old building, on Seventeenth Street and Washington Avenue (which, with the ground, cost less than two hundred thousand dollars), with little or no library and other equipment, and supported by a pittance

of endowment, averaging about half a million dollars, and producing, say twenty-five or thirty thousand dollars per year, it struggled along for nearly half a century, furnishing St. Louis with practically every branch of higher education. Having neither building, equipment, nor funds enough for either a college or school of engineering, it managed to support both, and as evidence of the earnest quality of the work done, witness the following service:

In our civic life, I think no one will question the overwhelming importance of the administration of our public schools. Superintendent Blewett, and his assistant, Mr. Bryan, are both Washington University men.

The next most important branch of public service is certainly the department of public improvements. Glance through the army of engineers that have administered or been connected with this department over a long period of years and you can scarcely lay your hand on a man that did not receive his training at Washington University. Holman, Flad, Burnett, O'Reilly and Adkins are all Washington University men. Probably the most important branch of this service is the water department as it requires the greatest skill in practically every branch of engineering. At the end of Mr. Adkins' (the present Water Commissioner) term this department will have been administered by three Washington University men (Holman, Flad and Adkins) for twenty-four consecutive years. During this period the water works have been practically rebuilt and their capacity nearly quadrupled, and in this work of reconstruction there were employed as division and assistant engineers more than twenty graduates of Washington University. Before leaving the water department permit me to say that if the University had produced only two men, John F. Wixford, who by chemical experiment discovered a method for clarifying and purifying our water supply and Commissioner Adkins who solved the engineering problem of applying it, the city would be largely its debtor.

A glance at the eleemosynary institutions will show that Dr. Runge, late Superintendent of the Insane Asylum, Dr. Elbrecht, Superintendent of the Female Hospital, and Dr. Kirchner, Superintendent of the City Hospital, are all Washington University men.

The public library with its branches all over the city has become no small factor in our educational life owing to the pre-eminent efficiency of the librarian, Mr. Crunden, whose serious illness we all so deplore. Mr. Crunden has served the city as librarian for more than thirty years, and as much as twenty years ago his eminence in his profession was recognized by his being elected President of the American Association of Librarians, and a few years later he was elected Vice-President of the International Congress of Librarians, held in London. Mr. Crunden is a graduate of Washington University.

In the little class of six which were graduated in 1870, there was a man who fifteen years later served the city as Mayor; four years later, the state as Governor and still six years later the United States as Secretary of the Interior; and four years ago, as President of the Louisiana Purchase Exposition, was the spirit or embodiment of that great enterprise. He is now a Director of Washington University, and the President of this Club. It is hardly necessary to mention his name.

Before leaving the public service let us see what we have done for the judiciary. I find that more than one state has been furnished by us with a supreme judge, while between twenty-five and thirty of our graduates have occupied seats on the United States and State Circuit and District Court benches.

Turning to the every-day walks of life it would be impossible to gather together a group of professional men of any strength in either medicine, dentistry, law or engineering without being struck by the large proportion of our graduates. They are too numerous to mention, but I must note two of our talented young engineers, Richard McCulloch, who has made an international reputation and now practically superintends and directs the city's vast street railway system, and Harvey Fleming, who is Chief Engineer of the Chicago Street Railway Company.

Suppose we leave the city and see if this small institution, which for nearly half a century graduated from the College and School of Engineering together an average of only about ten students per year, could have made an impression on the outside world. If you will make inquiry as to who is the most prominent civil engineer in the country some would probably say George Pegram, Chief Engineer of the New York Subway and Brooklyn

Tunnel, and others, appreciating the skill of the bridge builder, would say, Chas. W. Bryan, Chief Engineer and Manager of the American Bridge Company, which is the bridge department of the great steel corporation that is building bridges all over the world. Both of them are Washington University graduates, as is also F. C. McMath, President and Chief Engineer of the Canadian Bridge Company, and Wm. L. Breckinridge, Chief Engineer of the Burlington Railway System.

Let us now go to the great mining camp, Colorado, and make inquiry as to who is the most eminent mining engineer in the State. Some will probably say Regis Chauvenet, former President of the Colorado School of Mines, and others may say Seely Mudd, but it makes no difference to us, as they are both Washington University men. When John Hayes Hammond, the acknowledged most eminent living mining engineer, was leaving South Africa, as a result of his connection with the famous Jamison raid, he was asked by the owners of the vast properties he had been managing, to name the most capable man he knew as his successor. He named, and was succeeded by Pope Yeatman, a Washington University graduate.

The most of you who read the New York Evening Post and The Nation, are utterly ignorant of the fact that the gifted author and literary editor of these two papers, Paul Elmer More, is a Washington University graduate, as is Surgeon General Walter Wyman, of the United States Hospital Marine Service, and Samuel T. Armstrong, President, New York Academy of Medicine, author and Superintendent of Bellevue and allied hospitals.

In addition to our public school service, let us see what we have done for that noblest of all causes—higher education. Conceding to the Institute of Technology of Boston, first place among the technical schools of the country, the Worcester Polytechnic School is frequently mentioned as the second, and we gave them Engler for their President. Rochester Ford, late President of the University of Arizona, Regis Chauvenet, former President of the Colorado School of Mines, Wm. G. Raymond, Dean of the Engineering Department of the Iowa State University, Dr. G. V. Black, Dean of the Northwestern Dental School at Chicago, probably the highest dental authority in

the world, William S. Curtis, Dean of our own Law Department, Prof. McMillan, Dean of the Western Dental College of Kansas City, Prof. Miller, Dean of the North Pacific Dental School of Portland, Ore., Dr. McAlister, Dean of the Missouri State University Medical College, and a long list of eminent professors, record our contribution to education.

As our Medical Department is composed of the two oldest medical schools in the Mississippi Valley, i. e., the St. Louis and the Missouri, it would consume too much of your time to give you even an outline of the work they have done. Suffice it, that practically every physician and surgeon of any prominence in this city, is a graduate of one or the other of these schools, and you will find their graduates in every state in the union, without a single exception.

It is doubtless a matter of surprise to you that the Washington University, with so small a student body, has made such an impression upon the life of the city and the nation. The explanation is simple. We have always been a poor boys' college, drawing our students almost entirely from the Manual Training School and the high schools, more than a third of whom, through scholarships, paid no tuition. They had no *social* conception of higher education, of being a college man; they came for earnest training, and they received it, from a staff of professors, every man a master. Think of a small school, with a department in mathematics, containing three such men as Woodward, Pritchett and Engler! A strong faculty, giving its entire attention to a few earnest boys, the result was inevitable. These boys went out into the world equipped, and their record is the University's most valuable endowment—an endowment more precious than funds. Emerson truly says, "The best political economy is the care and culture of men."

We are more than proud of our past, and offer it as an earnest of what you may expect from the broadened field of influence opened to us by our unsurpassed group of new buildings, completely equipped with both teaching staff and apparatus.

Again referring to the work accomplished by our professional schools, I would call attention to the fact, that, during the past few years, the matriculation or entrance requirements have been raised, and the instruction broadened and lengthened

in all these schools, i. e., Law, Dental, and Medicine, raising them to the highest standard of efficiency. As evidence in this direction, note that our Dental School stands second in a long list of schools recommended by the National Association of Dental Examiners, Harvard being first, with a record of eight failures only, out of two hundred and thirteen students examined, or a success of ninety-six per cent, while we showed a failure of ten out of one hundred and forty-seven examined, or a success of ninety-three per cent. Our dental clinic treats nearly eight thousand patients annually, a large portion of which treatment is entirely free, while in no case is a greater charge made than the bare cost of material used.

In the Medical Department the standard of work has been so raised that the actual cost of instruction to us is now more than twice as much per student as we receive from tuition. This includes the splendid service of our own hospital, which, while primarily intended for student instruction, secures to the patient the best possible treatment, and incidentally gives to the city considerable hospital charity. In our maternity department alone, we care for hundreds of cases every year free, and as many as fourteen thousand patients annually, are treated at our out clinics without charge. Our students and nurses also serve on a visiting clinic, which renders the same sort of service in the hovels of both black and white all over the city, as witness, the excellent article in the October number of the American Journal of Nursing, by our Superintendent of Nurses, Miss Tye.

When in Baltimore, some two or three weeks ago, and felicitating President Remsen, of Johns Hopkins University, on the world-wide reputation attained by Johns Hopkins Hospital and Medical School, he made it perfectly clear to me that their great success was entirely the result of the wise provision of the founder, who placed both the Hospital and Medical School endowment, although separate, in the hands of the same Trustees. This admitted of that close affiliation between the two, which provided the Medical School with the clinical facilities of the Hospital, and in turn gave the Hospital such service as only a strong medical school staff, assisted by the upper or clinical students, can render. How long will it be before some wise philanthropist gives to St.

Louis and the Southwest a Johns Hopkins Hospital, by the erection and endowment of a hospital to be affiliated with our Medical School, universally recognized as having the strongest clinical faculty in the west?

One word only as to our future. No institution ever realizes the maximum of its opportunities without ideals, and a clearly defined, systematic scheme for realizing them. The Chancellor has given you a rough outline of our ideals, and we have our systematic scheme, a scheme which will require in the near future, more buildings, more equipment, and more endowment. Our present needs are so pressing, that the Board of Directors have concluded to make an immediate effort to raise a special endowment fund of a million dollars. The buildings will come to us in the future, as in the past, without much solicitation. Four well-known ladies voluntarily came to us, saying: "We wish to give of what we have for the benefit of humanity and the honor of our dead, and the Washington University seems to offer us the best opportunity. Can you use, on your campus, a memorial building?" They gave us nearly seven hundred thousand dollars for four buildings, which stand not only as monuments to four of our most respected citizens, but a monument to the never-failing generosity, loyalty, and devotion of woman.

I will close by saying to you what I have said to the boys and girls of the city high schools—it is a matter of earnest conviction with me, as the sum of my life's experience, that the best things in this world are not to be bought with money, but are made most accessible by a liberal education. I tell them they need not bother their heads about any socialistic theories of an equitable division of property so long as education is practically free.

We have established loan and scholarship funds, the increase of which should insure to every boy and girl in St. Louis who is too poor to pay, and has the ambition and mental capacity to take a college education, the great advantage of such training. As I have often said before, and as I believe the record of the University presented to you this evening proves, the poor boys from the Manual Training and high schools, under the pressure of necessity, and without any of the diversions or temptations of wealth, get most out of college education,

and render, as citizens, the best service. The greatest happiness the world has to offer, is service, and the best equipment for service is a liberal education, and even from a selfish point of view, no man or woman, it matters not how little they may have of this world's goods, who, equipped with such knowledge of the humanities and the natural sciences as enables them to view the world with a full eye, would ever exchange their lot for money. I speak with none of the arrogance of learning, but with that sense of disappointment which comes to a man when he realizes how much he has lost by a lack of early opportunity.

One of these days, St. Louis will be a great city, and on the hill facing Forest Park, there will be a great university, the city's crowning glory.

