OFFICE OF



SCIENCE HALL

UNIVERSITY OF TENNESSEE.

Knowille, March 19, 1892.

Fres. J.K. Patterson, University of Ky.

Deor Sin: I have beared Through Ires. Sabrey some particulars about The vacancy in your University in gralogy and palaeontology but would be pleased to learn something further but would be pleased to learn something further about the mature of the worst, number of classes, and such other information as a cutalogue will furnish.

Should you Think it desirable I can forobably visit Lexington during next mouth,

Respect July. 3. N. m. Callie,

UNIVERSITY OF TENNESSEE. Knosville, April 9 1892 Gres. J.K. Patlesson, University of Ky, Dear Sis; I wrate you several days ago making enquiry about the position in your university in geology and palaeontology but as I have not yet received any auswer suppose my leller was not delivered, I have learned through Dr. Dobney some facts about the pasition but would be pleased to learn samething freshes concerning the notices and amount of work required. Respectfully, B.N. Mcallie,

SCIENCE HALL

THE PRESIDENT

UNIVERSITY OF TENNESSEE.

Knosville, May 7, 1892.

To the Honorable the Board of Drustees of Kentucky state Callege;

Dermit me to lake This means of making formal application for the chair of Gralogy in your inslitution. Tertimonials as to my fitness for the position will be harded to your by the president of your Callege.

Respect July 8. M. McGallie,

THE PRESIDENT SCIENCE HALL UNIVERSITY OF TENNESSEE. Knosville, May 7, 1892. President James H. Pallerson, Lexington, Ry, Deor Si: Enclared your will find Testimonials and formal opplication for the chair of Healogy in your institution, I will gladly furnish your any other lestimanials I would be pleased to Know when The election will lake folace, Respect July, 3. W. M. Callie



Knowville, April 29th, 1893.

Dear Sir: -

A number of fine young men who will take their Master's degrees on the completion of advanced courses this year, desire to teach.

They are well matured men and, some of them, specialists. I describe them on the enclosed sheet. They are all reliable, Christian men and have had good business training. If you know of a vacancy that will suit any of them, you will do me a great favor by letting me know of it. Stamped envelope for reply enclosed.

I am, with best wishes,

Chase Dabrey from

University of Tennessee Index

in this concrete way: From the statistics above it is seen that Massachusetts spent in 1898-99, \$12,261,525 more upon her public schools than Tennessee. But see what a return she gets. Each one of the 2,805,346 citizens of Massachusetts—men, women and infants—has, as we have said, a productive capacity of \$260,00 a year, against \$170.00 a year for the average inhabitant of the whole United States and \$116.00 a year for the average inhabitant of Tennessee. The inhabitant of Massachusetts has thus an excess of \$90.00 a year over the average inhabitant of the United States and \$144.00 a year over the average inhabitant of Tennessee. This means that the people of Massachusetts earned last year \$252,487,140 more than the same number of average people of the United States and \$403,969,824 more than the same number of people in Tennessee. Twelve million dollars invested in superior education yield 400 millions a year!

If the people of Tennessee would compete in production with the people of the other states and of the world—and they must do so whether they will or not—they must educate all their children; not only their white children, but their black; and they must educate them all, not poorly for a few months in the year and a few years in their lives, but thoroughly through a long series of years. If history teaches us anything it is the solidarity of all mankind, that "no man liveth unto himself," and "no man dieth unto himself," but that we are each his "brother's keeper."

Our great resources in Tennessee, climate, soils and minerals, are useless in the hands of an untrained people. Moreover, if we do not educate our own people to use these resources intelligently, the trained men of other states will come in and do so, and make our native people "the hewers of wood and the drawers of water" in their industries.

Some persons seem to think that the marvelous energy and common sense of our people are a sufficient guarantee of their success in the battle of life. But common sense and even unmeasured energy do not win in these days without education. We must give our people knowledge and training or they will surely fail in the hot competition of the twentieth century. Will we not realize that our best resources are our own children and that our highest duty is to educate them for the greatest usefulness in life?

CHARLES W. DABNEY.

Education and Production

A STUDY OF THE

Opportunities for Public Education

AND THE

Production of Wealth in the United States

The State of Massachusetts

And the State of Tennessee



University of Tennessee Index, Series II. No. 10, Jan. 1991. Published monthly by the University of Tennessee and entered at the postoffice at Knoxville as second class matter

AS IS EDUCATION SO IS PRODUCTION

The chief characteristic of the nineteenth century has been the extension of the benefits of education to the masses of the Its chief lesson is that education increases the wealth producing power of a people in direct proportion to its distribu-tion and thoroughness. In fact the relations between education and productivity are so well understood now that you can non and productivity are so wen interested in the school privileges which they have enjoyed. Statistics show, for example, that the power of the people of the different states to earn money is in direct proportion to the length of the period the average citizen of each has attended school. To illustrate, the average school period in 1898-'99 of each inhabitant of the United States was 4.4 years; of Massachusetts, which has the best schools, was 7 years; of Tennessee was a little less than 3 years. The total annual production of the United States in the year 1800 was less than \$30.00 a year, or 10 cents a day, counting 306 working days in the year, for each man, woman and child; by 1850 the production had increased to nearly \$92.00 a year, or 30 cents a day; and in 1899 it was about \$170.00 a year, or 55 cents a day. The production of Massachusetts in 1899 was \$260.00 for each man, woman and child, or 85 cents a day. The most favorable figures make the total annual production of the people of Tennessee in 1899 less than \$116.00 a year, or 38 cents a day, for each inhabitant. Another way to express it is to say that the average family of five in Tennessee must live on \$580.00 a year, counting everything produced on the farm and in the home, as well as sales and money wages; while the same family in Massachusetts has \$1,300.00 a year to spend, and the average family of the United States has \$850.00. Put these facts together and we at once see their tremendous significance. The proportion

The data used in this paper were derived from the reports of the commissioner of education of the United States and of the state board of education of Massachusetts, from Butler's "Education in the United States," from articles by Dr. Wm. T. Harris, commissioner of education of the United States and from the Tennessee state reports.

between the school period in Massachusetts, the school period in the whole United States, and the school period in Tennessee is expressed by the figures 7, 4.4, and 3; or, multiplying each by 2, by the figures 14, 8.8, and 6. The proportion between the productive capacity of each person in Massachusetts, in the whole United States, and in Tennessee is expressed by the figures 260, 170, and 116; or, dividing by 20 to bring to terms similar to the others, we have 13, 8.5, and 5.8. Think of this!

Education is as 14 in Mass. to 8.8 in U. S. to 6 in Tenn. Production is as 13 in Mass. to 8.5 in U. S. to 5.8 in Tenn.

This is not a mere coincidence in the case of Massachusetts, the United States, and Tennessee; it is the law the world over. The productivity of a people is everywhere proportional to their education, that is their intellectual, physical, and moral training. It is not the natural resources, the climate, the soils, and the minerals; it is not even the race, much as these things count in production; but it is education which above everything else determines the wealth earning power of a people.

The population of Massachusetts is 2,805,346; of Tennessee

The population of Massachusetts is 2,805,346; of Tennessee is 2,020,616. They have the same number of children to educate. The enrollment and the average daily attendance on their public schools in 1898-99 were as follows:

schools in 1898-99 were as follows;

	Enrollment.	daily attendance.
Massachusetts		360,317
Tennessee	499,845	352,734

Massachusetts taught school 188 days in the year and her enrolled pupils attended an average of 143.5 days. Tennessee taught school only 89 days and her enrolled pupils attended only 62.8 days. The average Tennessee child is absent 26.2 days in the 89 days of the school session.

Massachusetts expended for all purposes of her public schools in 1898-99, \$13,889,838, which was \$38.55 per pupil in average daily attendance and \$5.07 per capita of her population. Tennessee expended for her public schools in the same year, \$1,628,313, which is \$4.62 per pupil in average daily attendance and only 83 cents per capita of population. The average expenditure for all the states of the union is \$19.00 per pupil in average daily attendance and \$2.67 per capita of the population of the entire country.

The power of education in production may be presented again

UNIVERSITY OF TENNESSEE. KNOXVILLE OFFICE OF THE PRESIDENT

JAN 5 1901

Dear Sir:

The inclosed leaflet was prepared to suggest to the people of Tennessee and the South a line of thought appropriate for the last Christmas of the century. I have used Tennessee as an illustration, because her educational conditions represent the average of those in the South and it is my own state. The conclusions apply with equal force to every Southern state, and it is hoped that others will make the applications to them.

Many explanations and excuses for the sad condition of our public schools will occur to the Southern reader; but I had to deal with facts and felt it my duty to point out the inexorable law of progress even though the demonstration was painful. Is it not time to cease discussing the past and making explanations for our unfortunate conditions and to get to work to improve them? If this law is true, if production is as education, how can we expect to make any progress if we do not heed it? How can we expect to be pardoned if we do not strive to live up to it in the future?

If you approve, will you not, for the sake of the cause, have this paper published, discussed and applied? A few copies can be had for distribution, if desired.

Very truly yours,

Chast Vi Dabiej

28 August 1905

President James K. Patterson,

State College of Kentucky,

Lexington, Kentucky.

Dear Sir:-

Yours to the Presidentof the University has been received in his absence, and I reply.

There is a Department of Domestic Science at the University of Tennessee, whose head is a member of the faculty proper, ranking as an instructor, and receiving at present a salary of \$1000. A statement of the course of study offered and other information in regard to the department will be found in the catalogue (page 74, see Home Economics) sent you under separate cover.

Yours very truly,

Registrar.

I host works

Dental Department

This department is also located at Nashville. It occupies one of the most modern dental college buildings in the country. Every facility is provided for a thorough course in all branches of dentistry. Fees and expenses are reasonable. For full information, address Dr. J. P. Gray, Dean, 212 North Spruce St., Nashville, Tenn.

Expenses

Living expenses for a student of the Colleges of Liberal Arts, Engineering and Agriculture, or of the Law Department, may be made as low as \$150 per session. Two hundred dollars will cover the total necessary expenses of such a student, excluding laboratory fees. To those not holding scholarships the tuition fee of \$60 per session will be charged in addition.

For further information, catalogues, special announcements of any of the colleges or departments, address Registrar, University of Tennessee, Knoxville, or

Brown Ayres,

President.

with letter aug 28,1905

University of Tennessee

KNOXVILLE



Liberal Arts, Engineering, Agriculture, Law, Medicine, Dentistry, Pharmacy

Circular of Information

June, 1905

MAUT-DEDEN CO., KNOXVILLE, TENN.

THE UNIVERSITY OF TENNESSEE

History.—The University of Tennessee comprises the Graduate Department, the College of Liberal Arts, the College of Engineering, the College of Agriculture, the Industrial Department, and the Law Department, all located at Knoxville; and the Medical and Dental Departments, located at Nashville. The University dates from 1794, having been chartered by the legislature of "the Territory South of the River Ohio" in that year, as "Blount College." In 1807 it was re-chartered as East Tennessee College, which later became East Tennessee University, and finally, in 1879, the University of Tennessee. In 1869 the proceeds of the sale of land scrip donated by the United States "for the establishment of an institution of learning, devoted to agriculture and the mechanic arts" were appropriated by the General Assembly of Tennessee to the University at Knoxville, thus giving it the means to add a strong technical and agricultural school to the classical department, which at the time of the appropriation was already seventy-five years old. In its long and honorable history the University has sent out many of the ablest men of the State and of the South. Its development has been steady, and during the past decade it has gone forward at an accelerated pace.

Location.—The campus of the University, at Knoxville, is one of the most beautiful spots in the State, the buildings standing high above the Tennessee river, which winds away among the hills and

mountains in either direction. The location is most healthful and the outlook most picturesque. There are fifteen buildings on the campus proper, and perhaps ten others on the two beautiful farms connected with the College of Agriculture.

Equipment.—The equipment of tools, machinery and laboratory appliances is good and steadily increasing. There are well equipped laboratories in chemistry, assaying, pharmacy, physics, zoology, botany, horticulture, soil physics, &c., and collections illustrating the geology, fauna and flora of the State. Extensive workshops give facilities for instruction in carpentry, wood turning, forging, iron and brass founding, and machine work. There are laboratories for tests of strengths of materials, electrical machinery, engines, boilers, hydraulic apparatus, etc. There are 235 acres in two beautiful experiment farms.

Library.—There is a library of about twenty thousand volumes, which is being steadily added to by purchase and donation. It is under the direction of a skilled librarian, by whose guidance the students are led to make free use of its resources.

Athletics.—In the Young Men's Christian Association building there is a well-equipped gymnasium, containing concave, canvas-lined running track, wall and other apparatus, baths, lockers, etc. There is good opportunity for athletics, the football and baseball teams being strong and successful, while basketball, tennis and track athletics receive their fair share of attention.

Forensics.—The two literary societies afford ex-

cellent opportunity for practice in oratory and debate, while the Tennessee University Magazine and other student publications afford opportunity for practice in literary composition.

Scholarships and Self Help.—The rate of tuition is low, and living expenses are moderate. There are two hundred and seventy-five free scholarships, to which appointments are made by the members of the legislature, three to each representative, and two to each senator. The students' loan funds provide means by which a student may borrow money to pay his expenses, repaying the debt some time after graduation. There are also many opportunities for a student to earn money by his own labor. In every way the University desires to honor and assist the young man or young woman that is trying to obtain an education under difficulties.

Session.—The annual sessions begin in the latter part of September and close in the early part of June.

College of Liberal Arts

In the College of Liberal Arts there are two regular four-year courses—the Literary, leading to the degree of Bachelor of Arts, and the Scientific, leading to the degree of Bachelor of Science. There is considerable freedom of election in each course, so that the needs of any student may be met. There is also a two years' course preliminary to the study of medicine which is credited as equivalent to one year of the four years required for graduation at the Medical and Dental Departments of the University. The College of Liberal Arts is open to women on the same conditions as men. There is an excellent new dormitory building for their use, presided over by the Dean of Women and managed by an experienced matron. There are excellent courses in Home Economics, including cookery and dressmaking, and in free hand drawing and color work. Arrangements may be made for musical instruction of a high order.

For the preparation of high school teachers, principals and superintendents, special educational courses are offered. The combination of the liberal arts and professional courses will prove attractive to those desiring to prepare themselves in the most thorough way for their work. These educational courses count like other subjects towards the Bachelor's degree. The requirements for admission to the College of Liberal Arts are substantially those of the Association of Colleges and Preparatory Schools of the Southern States of which the University is a member. The requirements are fully stated in the catalogue which will be sent on application.

College of Engineering

In the College of Engineering there are fully organized four-year courses in Civil, Mechanical, Electrical, Mining and Chemical Engineering. Each course is carefully planned to give the best results in its specialty, though in all of them the student receives the broad foundation necessary to every engineer. The methods of instruction are in accord with the best modern practice, and the excellent equipment of tools, machines and other accessories renders it possible to make the courses





very practical. The graduates of this department of the University find ready employment in lucrative positions on the railways and in the various industrial enterprises of the State. Some of them have risen to positions of distinction in all parts of the country and abroad. No student seeking first-class preparation for an engineering career can afford to overlook the facilities offered at the University of Tennessee.

College of Agriculture

In the College of Agriculture there is offered a full four years' course in Agricultural Science leading to the degree of Bachelor of Scientific Agriculture. In addition, there is a two years' course which combines a good scientific training with very practical instruction in all branches of agriculture. A winter short course, extending over twelve weeks, from January 4th to March 28th, is provided for those young men whose engagements prevent them from giving the time necessary for the work of the regular courses. In the agricultural courses attention is given to the sciences underlying agriculture, as well as to Farm Crops, Cereal Judging, Animal Husbandry, Stock Judging, Dairying, Poultry Raising, Horticulture, Veterinary Science, Agricultural Chemistry (including fertilizers), Farm Mechanics, etc.

In these days of improved methods and machinery and active competition, no young man can afford to enter upon the life of a farmer without proper study of the principles of his profession and of the sciences underlying it. Every facility is afforded at the University for the successful study of these subjects. Besides the fine scientific laboratories and workshops, there are two beautiful experiment farms, one of 145 acres and one of 90 acres, to both of which students have free access and in the conduct of which they have an opportunity to take part, under the guidance of skilled instructors.

Pharmacy

Instruction is given in the theory and practice of Pharmacy. There are two courses, one of four years, leading to the degree of Bachelor of Science in Pharmacy, and one of two years, leading to the degree of Pharmaceutical Chemist.

Law Department

A two years' course in law has been conducted for a number of years with marked success. This department numbers among its graduates many of the foremost lawyers of this and other States. Law students may take academic studies without additional charge. The fees for the law course are \$70 per session of eight and a half months.

Medical Department

The Medical Department of the University is located at Nashville. It occupies a commodious building especially erected for the purpose of medical teaching and equipped with lecture rooms, laboratories, dissecting rooms, etc. The hospital advantages are excellent. Expenses are very low. For full information address Dr. Paul F. Eve, Dean, 614 Broad St., Nashville, Tenn.

UNIVERSITY OF TENNESSEE

KNOXVILLE

OFFICE OF THE PRESIDENT

3 October 1903

President James K. Patterson,

State College of Kentucky,

Lexington, Ky.

My dear President Patterson:

Your letter of the 7th, making inquiry as to the salaries paid porfessors and assistant professors by the University of Tennessee, was duly received. We have no such system as your questions imply. However, we pay our assistant professors from nine hundred to twelve hundred dollars a year and professors from two thousand to twenty-five hundred. They are removable only by the Board of Trustees.

Trusting that this information will reach you in time to be of service to you.

Very truly yours,

President.